

Cultural intelligence and multicultural personality of novice nurses in the midst of the refugee crisis in Poland – a preliminary report

Inteligencja kulturowa i osobowość wielokulturowa pielęgniarek rozpoczynających pracę zawodową w dobie kryzysu uchodźczego w Polsce – doniesienie wstępne

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STRESZCZENIE

INTELEGENCJA KULTUROWA I OSOBOWOŚĆ WIELOKULTUROWA PIELĘGNIAREK ROZPOCZYNAJĄCYCH PRACĘ ZAWODOWĄ W DOBIE KRYZYSU UCHODŹCZEGO W POLSCE – DONIESIENIE WSTĘPNE

Cel pracy. Celem badania była analiza poziomu inteligencji kulturowej oraz profilu osobowości wielokulturowej wśród początkujących pielęgniarek w Polsce w kontekście rosnącej liczby migrantów i osób w kryzysie uchodźczym.

Materiał i metody. W badaniu przekrojowym uczestniczyło 234 novice nurses pracujących w szpitalach – klinicznych, wojewódzkich lub miejskich. Wykorzystano polską wersję skali inteligencji kulturowej oraz kwestionariusza osobowości wielokulturowej – the Multicultural Personality Questionnaire. Wszystkie obliczenia zostały wykonane przy pomocy oprogramowania Statistica™ 13.3 (TIBCO Software, Palo Alto, CA, USA).

Wyniki. Wyniki wskazują na umiarkowany poziom inteligencji kulturowej oraz różnorodność w nasileniu cech osobowości wielokulturowej. Największe nasilenie odnotowano w zakresie empatii kulturowej. Odnotowano dodatnią zależność między inteligencją kulturową a osobowością wielokulturową. Globalny wymiar inteligencji kulturowej oraz jej cztery komponenty cechowały się dodatnim związkiem z trzema cechami osobowości wielokulturowej – empatia kulturowa, inicjatywa społeczna i otwartość umysłu.

Wnioski. Badanie podkreśla znaczenie kompetencji kulturowych w opiece zdrowotnej oraz potrzebę wzmocnienia tych kompetencji u novice nurses, zwłaszcza w obliczu zmieniającego się społeczeństwa i wyzwań związanych z migracjami. Aby wzmocnić i rozwijać te umiejętności, wskazane jest stworzenie systematycznych programów szkoleniowych mających na celu zwiększenie kompetencji kulturowych wśród pielęgniarek.

Słowa kluczowe: inteligencja kulturowa, osobowość wielokulturowa, pielęgniarki, kryzys uchodźczy, kompetencje kulturowe

ABSTRACT

CULTURAL INTELLIGENCE AND MULTICULTURAL PERSONALITY OF NOVICE NURSES IN THE MIDST OF THE REFUGEE CRISIS IN POLAND – A PRELIMINARY REPORT

Aim. The aim of the study was to analyse the level of cultural intelligence and multicultural personality profile of novice nurses in Poland in the context of the increase of migration and refugee crises.

Material and methods. A cross-sectional study of 234 novice nurses working in clinical, district or city hospitals was conducted. The Polish version of the Cultural Intelligence Scale and the Multicultural Personality Questionnaire were used. Statistica™ 13.3 software was used for analysis.

Results. The results indicate a moderate level of cultural intelligence and diversity in the levels of intensity of the multicultural personality traits. The highest levels were found in cultural empathy. A positive correlation was found between cultural intelligence and multicultural personality. The global dimension of cultural intelligence and its four domains were found to be related to three multicultural personality traits – cultural sensitivity, social initiative and open-mindedness.

Conclusions. The study highlights the importance of cultural competence in healthcare and the need to strengthen it among novice nurses, especially amidst contemporary social changes and challenges associated with migration. The implementation of systematic training programmes aimed at increasing cultural competence among nurses is recommended to enhance and develop these skills.

Key words:

cultural intelligence, multicultural personality, nurses, refugee crisis, cultural competence

INTRODUCTION

One of the main challenges for the Polish health care system is to adapt to the increase in the number of migrants and people in refugee crises, which requires the provision of culturally sensitive health care services. There are many barriers that health professionals need to address, including staffing, accessibility of services, and the skills needed to respond effectively to different cultures [1]. Poland faces a severe shortage of nurses, with a relatively modest nurse-to-population ratio of 5.7 per 1,000 inhabitants in 2023 [2]. It is projected that by 2030, approximately 65% of the current nursing workforce will have reached retirement age [3]. This shortage will be exacerbated by a shortage of active nursing graduates, which will lead to an imbalance between those entering and leaving the profession [3,4].

Another challenge is to prepare health professionals to work effectively with migrants and refugees, which requires cultural intelligence and intercultural skills. This is particularly important for novice nurses, newly qualified nurses in the early stages of their nursing practice. Depending on the source, this period can last one [5] to two years [6]. Not only do novice nurses face the typical challenges associated with the onboarding process, such as adjusting to new roles and responsibilities and bridging the gap between theoretical knowledge and clinical practice [7], but they also have to deal with the complexities of multiculturalism in healthcare.

While formal education prepares nurses to provide multicultural care [8], their effectiveness is enhanced by their practical exposure to multiculturalism. Emphasising psychosocial competencies, including individual psychological dispositions such as cultural intelligence and multicultural personality, is therefore essential to complement formal education.

Cultural intelligence is a theoretical construct used to describe a person's ability to adeptly cope with novel situations in diverse environments and it comprises four key domains: cognitive, metacognitive, motivational and behavioural [9]. The cognitive domain refers to the understanding of the norms, values and systems of other cultures, while the behavioural domain refers to the ability to adapt behaviour in accordance with cultural norms. The motivational domain manifests itself as a genuine interest in and commitment to other cultures. The metacognitive domain refers to the ability to recognise cultural differences and to interpret the beliefs of others from a cultural perspective [10,11]. Although the exact nature of this relationship remains unclear [12], it is important to acknow-

ledge the relationship between cultural intelligence and multicultural personality [13].

Van der Zee and Van Oudenhoren [14] outlined the concept of multicultural personality, identifying its five key components: cultural empathy, social initiative, open-mindedness, flexibility and emotional stability. Together, these determine culture effectiveness [14,15]. Cultural empathy is the ability to empathise with people from different cultures, understand their emotions and respect their cultures. Social initiative is the tendency to take the lead, approach others and initiate interactions, especially in unfamiliar cultural contexts. Open-mindedness is the willingness to be open to new experiences and ideas and to engage with and learn from culturally diverse settings [14]. Flexibility is the ability to adapt behaviour and attitudes to different cultural contexts. Emotional stability measures the ability to maintain emotional balance and manage anxiety in unfamiliar or challenging cultural interactions [14,15].

Assessment of cultural intelligence and multicultural personality profiles [9-15] of novice nurses is paramount to the effective functioning of healthcare systems in multicultural contexts. This helps to understand patient needs and attitudes about illness and treatment [8]. Thus, analysing the level of cultural intelligence and characterising the multicultural personality of new nursing staff in Poland is of great importance, especially in the context of ongoing social transformations associated with migration and the refugee crisis. Preliminary research highlights the central role of these cultural competencies in providing quality care [16-23]. While personality profiles have been observed to influence cultural intelligence in nursing students [16-20], research on cultural intelligence and multicultural personality profiles of novice nurses in Poland, especially during the social transformation caused by the refugee crisis, is still scarce. Nevertheless, although there is a need for empirical validation, it is reasonable to expect similar correlations in novice nurses.

Background – migration and the refugee crisis in Poland

Before 2014, Poland had a relatively small immigrant population. Since 2014, the proportion of foreigners in Poland has been in the increase, exceeding 2 million in 2019. Current estimates indicate that there are about 3.5 to 4 million migrants in Poland, representing about 10% of the country's population [24]. They are primarily from Ukraine, Belarus, Georgia, India, Moldova, Russia, Vietnam and China [24,25]. Ukrainians are the largest group,

making up about 80% of the total migrant population. While some are traditional migrants, a significant proportion are fleeing the refugee crisis triggered by Russian aggression against Ukraine [26]. From February 24 to the end of April 2022, more than 3 million people had crossed the Polish border, 95% of them from Ukraine, mostly women and children. Many have chosen to stay in Poland [27].

In 2022, Ukrainian citizens accounted for about 4% of the total number of inpatients in primary referral hospitals and of outpatients in specialist care in Poland, according to the Central Statistical Office (CSO). Moreover, foreigners represented 5.4% of all sanatorium inpatients in the same year [28]. Importantly, these figures only include patients receiving services reimbursed by the National Health Fund, not those attending private clinics or practitioners.

AIM

The aim of this study was to analyse the level of cultural intelligence among novice nurses in Poland and to investigate the characteristics of their multicultural personality profiles in the context of the ongoing refugee crisis in the country.

MATERIALS AND METHODS

Ethical Considerations

The study protocol was approved by the University's Ethics Committee (IRB approval no. AKBE/101/2023). Before commencement of the study, participants were informed about the principles of anonymity and confidentiality in data collection. No personal data, including computer IP, were collected.

Design and setting

A nationwide cross-sectional multicentre online survey study was conducted between February and April 2023.

Eligibility

Active nurses employed in healthcare institutions were invited to participate in the study. The inclusion criteria were a maximum of 2 years of employment and willingness to participate in the research.

Sampling

This study used judgment sampling, a form of purposive sampling in which units are selected based on the researcher's professional judgement, as opposed to probability sampling in which units are randomly selected from the population of interest.

Sample size

Of the 371 nurses initially included in the study, 137 were excluded due to their employment exceeding two years. Thus, the final group analysed consisted of 234 nurses who were new to the profession.

Instrument

The study used the Polish adaptation of the Cultural Intelligence Scale by Barzykowski et al. [9]. The scale consists of 20 statements that respondents answer on a seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). It provides a global score for overall cultural intelligence and its four domains: meta-cognition (4 items), cognition (6 items), motivation (5 items) and behaviour (5 items). Global cultural intelligence scores range from 7 to 140 points, with the meta-cognitive domain scores ranging from 4 to 28 points, the cognitive domain scores ranging from 6 to 42 points, and the motivational and behavioural domain scores ranging from 5 to 35 points. With an alpha-Cronbach's index between 0.94 and 0.95, the scale has satisfactory psychometric properties [9].

The study also used the standardised Polish version of the Multicultural Personality Questionnaire, originally developed by Van Der Zee et al. (Barzykowski et al., forthcoming) [14]. This questionnaire evaluates five features crucial to intercultural success: cultural empathy, open-mindedness, social initiative, emotional stability and flexibility. Each subscale consists of 8 statements, scored between 5 and 40 points. The questionnaire has satisfactory Cronbach's alpha coefficients, ranging from 0.72 to 0.81 across the subscales [14]. Notably, the Polish version has similarly satisfactory Cronbach's alpha coefficients, ranging from 0.72 to 0.87 across scales and reaching 0.86 for the entire questionnaire.

The questionnaire used also included four questions relating to the socio-demographic characteristics of the respondents: gender, age, length of employment and workplace.

Data collection

The questionnaire was distributed via the Lime Survey web platform. The authors shared the link with novice nurses and, to optimise response rates, the survey link was emailed three times at one-week intervals.

Rigour

The validity of the results was ensured through the use of standardised tools to measure cultural competencies, including cultural intelligence and multicultural personality.

Data Analysis

All calculations were performed with Statistica™ 13.3 software (TIBCO Software, Palo Alto, CA, USA). For all analyses, a p-value less than 0.05 was deemed to be statistically significant. Descriptive statistics were used for data analysis. To assess the relationship between personality traits and cultural intelligence, the Spearman correlation index was used. The assessed the four subscales – metacognitive, cognitive, motivational and behavioural – to construct a detailed profile of the cultural intelligence of novice nurses. Standardised indicators were used to ensure comparability between the subscales with different numbers of statements. To facilitate comparisons between different groups or variables, the scores were converted to z-scores with a mean of 0 and a standard deviation of 1.

RESULTS

Characteristics of the study group

The sample consisted of 234 novice nurses from Poland, predominantly female (93.9%, $N = 219$), with 5.6% male, 0.4% non-binary and 0.4% choosing not to indicate gender. The mean age was 24.2 years ($SD = 2.38$). Most participants were employed in teaching hospitals (64.5%, $n = 151$) and district or city hospitals (26.9%, $n = 63$). The remainder worked in a variety of settings such as outpatient clinics, private practices, blood collection facilities, or nursing homes ($n = 20$). The participants came from several voivodships in Poland, including Mazowieckie, Lubelskie, Łódzkie, Pomorskie, Małopolskie, Świętokrzyskie, Warmińsko-Mazurskie, Podlaskie, Śląskie, and Zachodniopomorskie.

Cultural intelligence of novice nurses

The novice nurses had overall cultural intelligence of 83.46 points, indicating a moderate level of this trait (Tab. 1). The scores for individual components of cultural intelligence ranged from 18 to 23: metacognitive – 18, cognitive – 23, behaviour – 22 and motivation – 21.

Tab. 2. shows the minimum and maximum standardised scores for the four cultural intelligence subscales analysed. An analysis of the ranges, i.e. the differences between the minimum and maximum standardised values, shows that the largest differences were observed for the cognitive subscale and the smallest for the behavioural and motivational subscales.

Multicultural personality of novice nurses

Of the personality traits analysed, cultural empathy showed the highest intensity with 31 points, followed by flexibility and open-mindedness with 27 points each. Novice nurses scored an average of 26 points on the emotional stability scale. The lowest intensity was recorded for social initiative with a total of 25 points. Table 3. presents descriptive statistics for all five multicultural personality traits analysed.

The relationship between cultural intelligence and multicultural personality

The overall cultural intelligence and its four components showed positive correlations with three multicultural personality traits: cultural empathy, social initiative and open-mindedness (Tab. 4). However, no such relationship was observed for flexibility or emotional stability.

DISCUSSION

The results of the study provide a comprehensive picture of the cultural intelligence and multicultural personality profiles of novice nurses at a time of social change caused by the refugee crisis in Poland. To our knowledge, this study is the first of its kind in this context, which makes a direct comparison with similar reports on novice nurses impossible. However, research involving more experienced nurses and nursing students suggests that

■ Tab. 1. The cultural intelligence of novice nurses ($n=234$)

Domains of cultural intelligence	Mean	Standard Deviation	Minimum	Maximum	Maximum possible score	Median
overall intelligence	83.46	22.32	21.00	140.00	140.00	83.00
metacognitive	18.11	5.07	4.00	28.00	28.00	18.00
cognitive	22.58	7.15	6.00	42.00	42.00	23.00
motivational	21.08	6.97	5.00	35.00	35.00	20.00
behavioural	21.69	7.06	5.00	35.00	35.00	21.00

■ Tab. 2. Standardised parameters for the four subscales of cultural intelligence

Subscale:	N	Minimum	Maximum	Range
Metacognitive	234	-2.78422	1.95114	4.73536
Cognitive	234	-2.31911	2.71598	5.03509
Motivational	234	-2.30789	1.99870	4.30659
Behavioural	234	-2.36246	1.88452	4.24698

N – number of observations

■ Tab. 3. The intensity of multicultural personality traits of novice nurses

Personality trait	Mean	Standard Deviation	Minimum	Maximum	Maximum possible score	Median
Cultural Empathy	31.07	4.35	15.00	40.00	40.00	31.00
Flexibility	27.54	5.05	11.00	40.00	40.00	27.00
Social Initiative	24.53	3.21	17.00	33.00	40.00	24.00
Open-mindedness	26.76	4.10	15.00	39.00	40.00	27.00
Emotional Stability	25.75	3.61	15.00	33.00	40.00	26.00

■ Tab. 4. The relationship between cultural intelligence and multicultural personality

Variable		Multicultural personality subscale				
		cultural empathy	social initiative	open-mindedness	flexibility	emotional stability
overall cultural intelligence	rho	0.384	0.310	0.491	-0.016	-0.003
	p	<0.001	<0.001	<0.001	0.805	0.969
metacognitive	rho	0.308	0.291	0.482	0.035	0.032
	p	<0.001	<0.001	<0.001	0.598	0.623
cognitive	rho	0.214	0.222	0.359	0.004	-0.006
	p	<0.001	<0.001	<0.001	0.949	0.925
motivational	rho	0.375	0.274	0.466	-0.126	-0.078
	p	<0.001	<0.001	<0.001	0.054	0.237
behavioural	rho	0.355	0.229	0.360	0.081	0.039
	p	<0.001	<0.001	<0.001	0.216	0.554

Rho – rho-Spearman correlation; p – statistical significance

cultural intelligence plays a central role in promoting cultural competence and improving nursing care effectiveness [29,30]. The available data suggest that both nurses and nursing students typically demonstrate moderate levels of cultural intelligence [17, 30-32]. In contrast, the analysis of the multicultural personality profile of nurses and nursing students is more complex due to the variety of traits that make up this profile and their interactions, as well as the number of external factors that influence its development, such as the frequency of interactions with culturally diverse individuals [33]. As a result, a wide range of variation in the intensity of individual traits that contribute to the multicultural personality profile is observed among nurses and nursing students, ranging from high to low. Describing a standardized multicultural personality profile for nurses solely based on trait intensity is challenging. These different intensities of personality traits, in turn, influence cultural competence [16-19], therefore a more detailed analysis of this phenomenon is necessary.

Our findings provide a more detailed insight into the cultural competence of novice nurses, relate it to the performance of more senior nurses, and identify areas for further improvement. As such, they are a valuable addition to previous research in the area of nurses' cultural competence.

The group of novice nurses showed moderate intensity in both overall cultural intelligence and its four domains. A comparison of these findings with the existing literature on nursing students and nurses with more than two years of work experience shows a high degree of consistency, with all groups typically demonstrating moderate levels of cultural intelligence [17,22,23,30-32]. However, a wide range of standardised levels of cultural intelligence components was observed among novice nurses, with both high and low scorers within the group. The greatest diversity was observed in the cognitive domain. Within the concept of cultural intelligence, the cognitive domain pertains to the understanding of norms, practices and ground rules for social interaction across cultures. Studies by Van Dyne et al. [11] and Ang et al. [10] highlight the importance of the cognitive domain in interpreting and predicting behaviour in different cultural contexts. Therefore, although novice nurses generally showed moderate intensity in this variable, their knowledge in this field may vary.

The considerable diversity in the cognitive domain scores is worth noting, especially in light of reports by other researchers highlighting the positive correlation between cultural knowledge, cultural intelligence and intercultural sensitivity [30, 32]. Furthermore, greater knowledge of cultural differences has been associated with more cultural competence [17]. Therefore, it is essential to provide nursing students and novice nurses with opportunities to enhance their understanding of cultural differences [31]. This aspect was highlighted in our study, as novice nurses showed considerable variability in the cognitive dimension of cultural intelligence. Given the interrelated nature of cultural intelligence components, the efforts to develop novice nurses' skills in interpreting

and predicting behaviour in diverse cultural contexts are fully justified. Such initiatives are in line with the broader consensus among researchers who emphasise that improving cultural awareness and knowledge contributes to more effective nursing care [34, 35].

The analysis of the multicultural personality profile of novice nurses showed a high degree of consistency, with most traits showing moderate levels, except for cultural empathy, which showed high levels. Flexibility, open-mindedness and emotional stability were reported slightly lower, while social initiative showed the lowest levels. What is noticeable is that the differences between these traits were minimal. This is especially interesting in light of studies involving practising nurses and nursing students, which indicate a greater variation in the multicultural personality profile [16-19, 33]. For example, in a study by Cieślak et al. [16], nursing students showed considerable variation in the levels of multicultural personality traits such as cultural empathy, social initiative and open-mindedness.

The reported high level of cultural empathy among novice nurses is crucial in the context of clinical interactions with patients from diverse cultural backgrounds [36,37]. According to Van der Zee and Van Oudenhoven's concept of multicultural personality [14], cultural empathy involves understanding and identifying the feelings and behaviours of individuals from different cultures. In particular, it includes cognitive (knowledge), affective (emotional involvement), behavioural (empathic action) and relational aspects. The relational aspect involves the acknowledgement and appreciation of the symbolic network of individuals close to the person with whom one is empathising [38]. This has a profound impact on a variety of the dimensions of the nurse-patient relationship across diverse cultural backgrounds. Such complexity is further supported by reports from other researchers highlighting wide variation in the level of cultural empathy among nursing students [16-18].

In the context of nursing, cultural empathy involves not only understanding the feelings and concerns of patients from different cultural backgrounds, but also accepting their perspective. Furthermore, nurse-patient interactions should be based on empathy, which is recognised as a fundamental skill necessary for positive patient outcomes [36]. This is further underlined by Barzykowski et al., who found a significant relationship between intercultural competence and empathy in Polish healthcare professionals [39].

It is important to acknowledge that levels of cultural empathy are not fixed and can fluctuate due to external factors (e.g. work overload) and internal factors (e.g. emotional state). It is a dynamic rather than a static construct, meaning that change can be both positive and negative [40]. Although novice nurses are characterised by high levels of this trait, support is needed to ensure that it remains at the same level or increases over time.

Moderate increases were found in three personality traits: flexibility, emotional stability and openness. Following Van der Zee and Van Oudenhoven [14], flexibility is the ability to adapt and respond flexibly to changing

circumstances. Emotional stability involves maintaining emotional equilibrium and managing stress in challenging situations. Open-mindedness, on the other hand, involves a tolerance for different opinions and a willingness to reconsider one's own beliefs [14,15]. The development of these skills is crucial in nursing, particularly in settings that involve interacting with people with different values and beliefs, and in difficult or conflicted circumstances.

The average levels of the discussed characteristics in novice nurses suggest they have moderate adaptability to new conditions, including crisis situations. Adaptability is crucial in dynamic and changing environments [41]. Essentially, nurses may have basic and universal resources (such as common knowledge and skills from their community) to manage difficult intercultural situations. Therefore, strengthening these multicultural personality traits is essential to enable nurses to effectively cope with a variety of challenging situations, both typical and atypical, when caring for patients from different cultural backgrounds.

The lowest levels were observed for social initiative, indicating involvement in community action and social connectedness [14,15]. Social initiative is especially important for caregivers. The slightly lower intensity of this feature in the group analysed suggests an area for further development. This is important because of the growing number of patients from different cultures accessing Polish health services [28], as well as the increasing presence of nursing staff from outside the EU, mainly from Ukraine [4]. Various strategies, including specialised training, mentoring, coaching, individual and institutional support, can be used to promote social initiative in multicultural contexts.

The present study found a correlation between the overall level of cultural intelligence and its four domains with three multicultural personality traits: cultural empathy, social initiative and open-mindedness. This correlation strengthens the findings and provides a comprehensive understanding of the cultural competence of novice nurses. Furthermore, our findings are consistent with previous research linking cultural intelligence and multicultural personality [42-45]. Notably, cultural intelligence and multicultural personality are complementary and reinforce each other, providing multiple benefits in various intercultural scenarios [44]. The positive relationship between these traits helps to enhance intercultural communicative competence [45]. In addition, personality traits, particularly openness and agreeableness, have been found to influence cultural intelligence, suggesting their role in effectively managing social situations over cultural differences [46]. Thus, changes in one domain, such as cultural intelligence, may influence changes in others, such as multicultural personality. This approach favours tailored career development pathways for nurses to develop multicultural competence, including cultural intelligence and multicultural personality.

Strengths

This is the first simultaneous study of two cultural competences – cultural intelligence and multicultural personality – in a group of novice nurses during the period

of social change, migration and refugee crisis. In addition, the study addresses the crucial issue of cultural competence in healthcare, which is particularly relevant given increasing cultural diversity. The cognitive value of the study is enhanced by the use of a comprehensive approach and standardised tools, such as the Cultural Intelligence Scale and the Multicultural Personality Questionnaire.

Limitations

The main limitation is the lack of current norms for cultural intelligence and multicultural personality in novice nurses. Nevertheless, the results provide a comprehensive description of the cultural competencies discussed and how they relate to each other. The study was also limited by its sample size. Nevertheless, it is important to note that this was a preliminary study carried out on nurses working in different hospitals in different provinces of Poland.








CONCLUSIONS

The average level of cultural intelligence among novice nurses suggests a need for improvement, particularly in the cognitive domain (i.e. the understanding of norms, practices and basic principles of social interaction in different cultures), as crucial for more effective nursing care.

Compared to the other traits, cultural empathy scored higher in the multicultural personality profile. This highlights the importance of cultural empathy in interactions with patients from different cultural backgrounds.

The findings highlight the need for the development of cultural competence among novice nurses, especially in view of the increasing cultural diversity of patients in Poland. Recommendations for improving cultural competence include the implementation of systematic training programmes on cultural norms, values and practices regarding health, illness and treatment. Further research is needed to better understand how cultural intelligence and multicultural personality relate to nursing practice.

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REFERENCES

- Salway S, Holman D, Lee C, et al. Transforming the health system for the UK's multiethnic population. *BMJ*. 2020; 368: m268. <https://doi.org/10.1136/bmj.m268>
- OECD 2024, Nurses (indicator). doi: 10.1787/283e64de-en (Accessed on 30 January 2024)
- Naczelna Rada Pielęgniarek i Położnych. Raport Pielęgniarka, położna zawody deficytowe w Polskim systemie ochrony zdrowia. Warszawa: Naczelna Rada Pielęgniarek i Położnych; 2022. RAPORT.
- Chudek J, Dwornikowska-Dąbrowska M, Gaciąg Z, et al. Rekomendacje strategiczne na lata 2023-2027: Niedobory kadr medycznych – Polskie Zdrowie 2.0. Warszawa: Polska Akademia Nauk Wydział Nauk Medycznych Komitet Zdrowia Publicznego; 2023 r.

5. Benner P. From novice to expert. *The American Journal of Nursing*. Menlo Park: Lippincott Williams & Wilkins. 1984; 82(3): 402-407. <http://dx.doi.org/10.1097/0000446-198412000-00025>
6. Ten Hoeve Y, Kunnen S, Brouwer J, et al. The voice of nurses: Novice nurses' first experiences in a clinical setting. A longitudinal diary study. *J. Clin. Nurs*. 2018; 27(7-8): e1612-e1626. <https://doi.org/10.1111/jocn.14307>
7. Hampton KB, Smeltzer SC, Ross JG. The transition from nursing student to practicing nurse: An integrative review of transition to practice programs. *Nurse Educ. Pract*. 2021; 52: 103031. <https://doi.org/10.1016/j.nepr.2021.103031>
8. Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 26 lipca 2019 r. w sprawie standardów kształcenia przygotowującego do wykonywania zawodu lekarza, lekarza dentystry, farmaceuty, pielęgniarstwa, położnej, diagnosty laboratoryjnego, fizjoterapeuty i ratownika medycznego
9. Barzykowski K, Majda A, Przyłęcki P. Polish Adaptation of the Cultural Intelligence Scale: An Overview. *Pielęgniarstwo w Opiece Długoterminowej/Long-Term Care Nursing*. 2021; 6(1): 25-34. [https://doi.org/10.19251/pwod.2021.1\(3\)](https://doi.org/10.19251/pwod.2021.1(3))
10. Ang S, Van Dyne L NA, Koh C, et al. Cultural intelligence: Its measurement and effects on cultural judgment an decision making, cultural adaptation and task performance. *Management and Organization Review*. 2007; 3: 335-371. <http://dx.doi.org/10.1111/j.1740-8784.2007.00082.x>
11. Van Dyne L, Ang S, Ng KY, et al. SubDimensions of the Four Factor Model of Cultural Intelligence: Expanding the Conceptualization and Measurement. of Cultural Intelligence. *Social and Personality Psychology Compass*. 2012; 6(4): 295-313. <https://doi.org/10.1111/j.1751-9004.2012.00429.x>
12. Hofhuis J, Jongering J, Van der Zee KI, et al. Validation of the Multicultural Personality Questionnaire Short Form (MPQ-SF) for use in the context of international education. *PLoS ONE*. 2020; 15(12): e0244425. <https://doi.org/10.1371/journal.pone.0244425>
13. Sousa C, Goncalves G, Santos J, et al. The relationship between multicultural competencies and intercultural contact: multicultural personality and cultural intelligence. *Psicologia & Sociedade*. 2019; 31: e166867. <https://doi.org/10.1590/1807-0310/2019v31166867>
14. Van der Zee K, van Oudenhoven JP. The Multicultural Personality Questionnaire: A Multidimensional Instrument of Multicultural Effectiveness. *Eur. J. Pers*. 2020; 14: 291-309. [https://doi.org/10.1002/1099-0984\(200007/08\)14:4%3C291::AID-PER377%3E3.0.CO;2-6](https://doi.org/10.1002/1099-0984(200007/08)14:4%3C291::AID-PER377%3E3.0.CO;2-6)
15. Van der Zee KI, Van Oudenhoven JPLM. Culture shock or challenge? The role of personality as a determinant of intercultural competence. *Journal of Cross Cultural Psychology*. 2013; 44(6): 928-940. <https://doi.org/10.1177/0022022113493138>
16. Cieślak I, Jaworski M, Panczyk M, et al. Multicultural personality profiles and nursing student attitudes towards refugee healthcare workers: A national, multi-institutional cross-sectional study. *Nurse Educ. Today*. 2024; 134: 106094. <https://doi.org/10.1016/j.nedt.2024.106094>
17. Seo YS, Kwon YC. Factors influencing to the cultural competence in nursing students. *Journal of Digital Convergence*. 2014; 12(6): 415-423. <https://doi.org/10.14400/JDC.2014.12.6.415>
18. Hwang HY, Chyn YE, Hur J. Effects of multicultural understanding subject on the empathy and multicultural attitude of nursing student. *Journal of the Korea Academia-Industrial Cooperation Society*. 2015; 16(1): 106-115.
19. Omeri A, Malcolm P, Ahern M, et al. Meeting the challenges of cultural diversity in the academic setting. *Nurse Education in Practice*. 2003; 3(1): 5-22. [https://doi.org/10.1016/S1471-5953\(02\)00026-4](https://doi.org/10.1016/S1471-5953(02)00026-4)
20. Lee IS, Cho JY. A study on the cultural competency and demand for a multicultural education program among nursing college students. *Journal of the Korea Academia-Industrial cooperation Society*. 2014; 15(1): 283-290. <http://dx.doi.org/10.5762/KAIS.2014.15.1.283>
21. Reiskin H, Haussler SC. Multicultural students' perceptions of nursing as a career. *Image: the Journal of Nursing Scholarship*. 1994; 26(1): 61-64. <https://doi.org/10.1111/j.1547-5069.1994.tb00295.x>
22. Majda A, Bodys-Cupak IE, Zalewska-Puchała J, et al. Cultural Competence and Cultural Intelligence of Healthcare Professionals Providing Emergency Medical Services. *Int. J. Environ. Res. Public Health*. 2021; 18(21): 11547. <https://doi.org/10.3390/ijerph182111547>
23. Majda A, Zalewska-Puchała J, Bodys-Cupak I, et al. Evaluating the Effectiveness of Cultural Education Training: Cultural Competence and Cultural Intelligence Development among Nursing Students. *Int. J. Environ. Res. Public Health*. 2021; 18(8): 4002. <https://doi.org/10.3390/ijerph18084002>
24. Piekutowski J. Raport Migracje: niewykorzystana (na razie) SZANSA POLSKI. Warszawa: Enterprise Institute; 2023r.
25. GUS. Cudzoziemcy wykonujący pracę w Polsce w czerwcu 2023 r. Warszawa: Główny Urząd Statystyczny; 2023.
26. Urząd do Spraw Cudzoziemców. Obywatele Ukrainy w Polsce – aktualne dane migracyjne, <https://www.gov.pl/web/udsc/obywatele-ukrainy-w-polsce--aktualne-dane-migracyjne2> [Dostęp:01.03.2024 r]
27. Duszczyk M, Kaczmarczyk P. Wojna i migracja: napływ uchodźców wojennych z Ukrainy i możliwe scenariusze na przyszłość. *CMR Spotlight*. 2022; 4(39).
28. GUS. Raport „Zdrowie i ochrona zdrowia w 2022 r.” Warszawa: Główny Urząd Statystyczny; 2023
29. Rahimaghaee F, Mozdar R. Cultural intelligence and its relation with professional competency in nurses. *NPT*. 2017; 4(3): 115-124.
30. Göll İ, Erkin Ö. Association between cultural intelligence and cultural sensitivity in nursing students: A cross-sectional descriptive study. *Collegian*. 2019; 26(4): 485-491. <https://doi.org/10.1016/j.colegn.2018.12.007>
31. Repo H, Vahlberg T, Salminen L, et al. The cultural competence of graduating nursing students. *Journal of transcultural nursing*. 2017; 28(1): 98-107. <https://doi.org/10.1177/1043659616632046>
32. Dur Ş, Göll İ, Erkin Ö. The effects of nursing students' conscientious intelligence on their cultural sensitivity levels. *Perspectives in Psychiatric Care*. 2022; 58(2): 795-803. <https://doi.org/10.1111/ppc.12852>
33. Lee JY, Ju HO. The perception of multicultural families on hospital nurses. *Journal of East-West Nursing Research*. 2013; 19(1): 30-36. <https://doi.org/10.14370/jewnr.2013.19.1.030>
34. Kaihlanen AM, Hietapakka L, Heponiemi T. Increasing cultural awareness: qualitative study of nurses' perceptions about cultural competence training. *BMC Nurs*. 2019; 18: 38. <https://bmcnurs.biomedcentral.com/articles/10.1186/s12912-019-0363-x>
35. Červený M, Kratochvílová I, Hellerová V, et al. Methods of increasing cultural competence in nurses working in clinical practice: A scoping review of literature 2011-2021. *Front. Psychol*. 2022; 13: 936181. <https://doi.org/10.3389/fpsyg.2022.936181>
36. Zarei B, Salmabadi M, Amirabadizadeh A, et al. Empathy and cultural competence in clinical nurses: A structural equation modelling approach. *Nurs. Ethics*. 2019; 26(7-8): 2113-2123. <https://doi.org/10.1177/0969733018824794>
37. Hernandez NC, Leal LMR, Brito MJM. Building Culturally Competent Compassion in Nurses Caring for Vulnerable Populations. *J. Holist. Nurs*. 2022; 40(4): 359-369. <https://doi.org/10.1177/08980101211062708>
38. Eichbaum Q, Barbeau-Meunier CA, White M, et al. Empathy across cultures – one size does not fit all: from the ego-logical to the eco-logical of relational empathy. *Adv. Health Sci. Educ. Theory Pract*. 2023; 28(2): 643-657. <https://doi.org/10.1007/s10459-022-10158-y>
39. Barzykowski K, Majda A, Przyłęcki P, et al. The cross-cultural competence inventory: validity and psychometric properties of the polish adaptation. *PLoS ONE*. 2019; 14(3): 1-21. <https://doi.org/10.1371/journal.pone.0212730>
40. Chen GM, Starosta WJ. The Development and Validation of Intercultural Sensitivity Scale. *Human Communication*. 2000; 3: 1-15.
41. Middleton R, Kinghorn G, Patulny R, et al. Qualitatively exploring the attributes of adaptability and resilience amongst recently graduated nurses. *Nurse Educ. Pract*. 2022; 63: 103406. <https://doi.org/10.1016/j.nepr.2022.103406>
42. Sousa C, Gonçalves G. Expatriates and non-expatriates: Effects of cultural intelligence and multicultural personality on passion for work and satisfaction with life. *Psychological Thought*. 2017; 10(1): 90-108. <http://dx.doi.org/10.5964/psyc.v10i1.197>
43. Yeké S, Semerciöz F. Relationships between personality traits, cultural intelligence and intercultural communication competence. *Procedia-Social and Behavioral Sciences*. 2016; 235: 313-319. <http://dx.doi.org/10.1016/j.sbspro.2016.11.036>
44. Liao Y, Thomas DC, Liao Y, et al. Individual and Interpersonal Outcomes of Cultural Intelligence. *Cultural Intelligence in the World of Work: Past, Present, Future*. 2020; 95-134. <http://dx.doi.org/10.1007/978-3-030-18171-0>
45. Ponterotto JG, Ruckdeschel DE, Joseph AC, et al. Multicultural personality dispositions and trait emotional intelligence: An exploratory study. *The Journal of social psychology*. 2011; 151(5): 556-576. <https://doi.org/10.1080/00224545.2010.503718>
46. Li M, Mobley WH, Kelly A. Linking personality to cultural intelligence: An interactive effect of openness and agreeableness. *Personality and Individual Differences*. 2016; 89: 105-110. <https://doi.org/10.1016/j.paid.2015.09.050>

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