

Cultural Competence among Paediatric Nurses in Delta State, Nigeria: The Role of Years of Clinical Experience

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ABSTRACT

Background: Cultural competence is essential for paediatric nurses caring for diverse populations, yet little is known about its level among nurses in Delta State, Nigeria, particularly the role of clinical experience in its development.

Objective: To assess the level of cultural competence and determine the influence of years of clinical experience on cultural competence among paediatric nurses in tertiary and public secondary health facilities in Delta State.

Methods: A cross-sectional descriptive survey was conducted among 114 paediatric nurses (83.2% response rate) from one tertiary and 11 public secondary health facilities in Delta State. Data were collected using the Nurse Cultural Competence Scale Questionnaire (NCCSQ), which was validated for the Nigerian context through expert review and exploratory factor analysis. Data were analysed using descriptive statistics, independent t-tests, chi-square tests, and multivariable linear regression. Significance was set at $p < 0.05$.

Results: Most nurses demonstrated moderate cultural competence (mean score = 3.39, SD = 0.44); 81% had received no formal training. Nurses with ≥ 5 years clinical experience scored significantly higher ($p = 0.001$, Cohen's $d = -0.67$). A significant association was found between years of clinical experience and level of cultural competence ($\chi^2 = 7.22$, $p = 0.03$). After controlling for age, gender, educational level, prior training, professional rank, and facility type in multivariable regression, years of clinical experience remained a significant independent predictor ($\beta = 0.21$, $p < 0.001$). Experienced nurses were more likely to have high cultural competence compared to less experienced nurses. Less experienced nurses had higher rates of low competence.

Conclusion: Years of clinical experience has a medium effect on cultural competence among paediatric nurses in Delta State. However, without formal training, even experienced nurses remain at moderate levels. Structured training is essential to convert experiential learning into high-level cultural competence. Self-report bias and online administration limitations are acknowledged.

Keywords: Cultural competence, paediatric nurses, clinical experience, years of experience, Delta State, Nigeria.

INTRODUCTION

Cultural competence is essential for paediatric nurses caring for diverse populations, yet little is known about its level among nurses in Delta State, Nigeria, particularly the role of **clinical** experience in its development. In order to effectively work within the cultural context of a person, family, or community from a diverse cultural background, a healthcare worker must consistently strive to become culturally competent (Campinha-Bacote, 2002). Cultural competence in health care describes the ability of systems to provide care to patients with diverse values, beliefs and behaviours, including tailoring delivery of health care services to meet patients' social, cultural, religious and linguistic needs (Betancourt et al., 2003).

The presence of cultural variety is the primary global cause of health disparities (World Health Organization, 2023). Research revealed that one effective strategy for eradicating longstanding inequalities is to provide care that is culturally competent (Bandeali & Maita, 2024). According to systematic research carried out in the US, Canada, New Zealand, and Australia, a substantial proportion of participants received subpar nursing care that was culturally competent (**Berie et al., 2021**). Approximately 58.7% of respondents in a cross-sectional study on Sudanese nurses showed low scores for cultural competency (Birhanu et al., 2023).

Paediatric nurses mainly work in paediatric wards that provide a setting where children's health and wellbeing from newborns to teenagers are the primary focus. In addition to providing direct medical treatment, paediatric nurses often provide emotional support, education, and advocacy for the child and their family (Zelege et al., 2024). This multidimensional profession requires a high degree of cultural competency to interact with families from diverse backgrounds and offer all-encompassing medical care (Sharifi et al., 2019).

In an ideal healthcare environment, nurses should have a high level of cultural competence to effectively care for patients from diverse backgrounds, ensuring all patients receive high-quality, culturally sensitive care (**Berie et al., 2021**). Such competence improves healthcare outcomes, increases patient satisfaction, and reduces health disparities (Amira, 2023). However, despite global efforts to improve cultural competence, significant disparities among nurses persist. Studies have shown that a considerable proportion of nurses in various countries provide below standard culturally competent care, while many nurses score low on cultural competence measures. In Nigeria, particularly in Delta State, the level of cultural competence among nurses especially pediatric nurses remains underexplored, despite the country's cultural diversity.

Clinical experience equips paediatric nurses with practical insights and skills crucial for managing the complexities of culturally diverse patient interactions. Through direct exposure to various cultural contexts, experienced nurses develop a refined understanding of how cultural differences affect health perceptions, practices, and communication (**Ličen & Prosen, 2023**). Seasoned nurses often develop enhanced communication skills through their extensive interactions with patients and families from various cultural backgrounds (**Gerchow et al., 2021**). **Clinical** experience fosters a deeper level of empathy and cultural sensitivity among paediatric nurses (Stubbe, 2020).

However, the relationship between **clinical** experience and cultural competence is not always linear. A cross-sectional survey of nurses in Lithuania found that shorter **clinical** experience was actually associated with higher cultural competence scores (**Strumskienė et al., 2025**). Similarly, a study in Ethiopia found that 11-20 years of **clinical** experience was a positive predictor of cultural competence, but also noted that experience in caring for culturally and ethnically diverse patients was a strong predictor (Zelege et al., 2024). This indicates that the quality and diversity of experience matter as much as the quantity.

There is a notable gap in understanding the extent of cultural competence among paediatric nurses in tertiary and public secondary health facilities in Delta State and the role of **clinical** experience in its development. Therefore, this study assessed cultural competence among paediatric nurses in tertiary and public secondary health facilities in Delta State, with particular focus on the role of years of **clinical** experience.

Aim of the Study

The aim of this study was to assess the influence of years of **clinical** experience on cultural competence among paediatric nurses in tertiary and public secondary health facilities in Delta State.

Specifically this study:

1. Assessed the level of cultural competence among paediatric nurses in tertiary and public secondary health facilities in Delta State.
2. Determined the influence of years of **clinical** experience on the cultural competence of paediatric nurses.

Research Questions

1. What is the level of cultural competence among paediatric nurses in tertiary and public secondary health facilities in Delta State?
2. What is the influence of years of **clinical** experience on the cultural competence of paediatric nurses in tertiary and public secondary health facilities in Delta State?

Research Hypotheses

1. H_{01} : There is no significant association between the level of cultural competence and the years of **clinical** experience of paediatric nurses in tertiary and public secondary health facilities in Delta State.
2. H_{02} : Years of **clinical** experience does not have a significant influence on the cultural competence of paediatric nurses in tertiary and public secondary health facilities in Delta State.

METHODS

Study Design and Setting

A cross-sectional descriptive survey was conducted among paediatric nurses in tertiary and public secondary health facilities in Delta State. According to Idoko (2018), a cross-sectional descriptive survey design stipulates that study be carried out under natural conditions where variables are not controlled or manipulated. A cross-sectional design was chosen because it is suitable for assessing the prevalence of cultural competence and its associated factors at a single point in time without requiring longitudinal follow-up (Creswell & Creswell, 2018).

The study area was tertiary and public secondary health facilities in Delta State. Delta State is a state in the South-South geopolitical zone of Nigeria, named after the Niger Delta. The state was formed from the former Bendel State on 27 August 1991. It is bordered on the north by Edo State, the east by Anambra and Rivers states, and the south by Bayelsa State while to the west is the Bight of Benin.

The tertiary health facility included Federal Medical Centre Asaba, while the public secondary health facilities included 11 facilities across six selected medical zones (Warri, Agbor, Eku, Ogwashi-Uku, Oleh, and Okwe-Asaba).

Population and Sample

The target population comprised all paediatric nurses working in selected tertiary and public secondary health facilities in Delta State. From Federal Medical Centre Asaba, there were 87 paediatric nurses across departments: Children's Out-Patient Clinic (20), Children's Ward 1 (15), Children's Ward 2 (17), Children's Emergency Room (15), and Neonatal Ward (20). The selected public secondary health facilities had 50 paediatric nurses. The total population was 137.

A census approach was employed rather than sampling. The total population of paediatric nurses in the selected health facilities was 137. Because the population was of manageable size and accessible, all eligible nurses were included in the study. This eliminated sampling error and ensured findings represented the entire population of paediatric nurses in the facilities studied.

Inclusion and Exclusion Criteria

Inclusion Criteria: All paediatric nurses working at tertiary and public secondary health facilities in Delta State who were willing to participate were included in the study.

Exclusion Criteria: Sick paediatric nurses who were not able to complete the questionnaire were excluded from the study.

Sampling Method

A multistage sampling design was used to select health facilities, followed by a census of all paediatric nurses within the selected facilities:

- **Stage 1 – Selection of tertiary facility:** Simple random sampling was used to select one tertiary health facility (Federal Medical Centre, Asaba).
- **Stage 2 – Selection of medical zones:** Simple random sampling was used to select six medical zones from the twelve zones in Delta State.
- **Stage 3 – Selection of secondary facilities:** From each of the six selected medical zones, simple random sampling was used to select two public secondary health facilities from five zones, and one secondary facility from the remaining zone, resulting in 11 secondary facilities.
- **Stage 4 – Census of nurses:** Within the one tertiary facility and 11 secondary facilities selected, all paediatric nurses working during the data collection period were included.

Data Collection Instrument

An adapted Nurses Cultural Competence Scale Questionnaire (NCCSQ) and a structured questionnaire developed by the researcher were employed. The questionnaire was divided into two sections:

- **Section A:** Demographic information including age, gender, education level, years of **clinical** experience, professional rank, and type of health facility.
- **Section B:** Focused on the research objectives. The first research objective collected quantitative data exploring the cultural competence of paediatric nurses with fifteen (15) items. The second research objective (influence of **clinical** experience) included ten (10) items. Responses were measured using a 5-point Likert scale, with options ranging from Strongly Agree (5) to Strongly Disagree (1).

Validity of the Instrument

The NCCSQ, which was originally developed in English, underwent a comprehensive validation process for the Nigerian context.

Face and Content Validity: The instrument was reviewed by a panel of three experts in nursing and midwifery nursing. The experts assessed the questionnaire for clarity, relevance to the study objectives, and cultural appropriateness for the Nigerian context. Their feedback and observations were incorporated into the final draft of the instrument. The Content Validity Index (CVI) was calculated based on expert ratings of relevance and clarity, yielding a CVI of 0.92, which indicated excellent content validity.

Construct Validity: An Exploratory Factor Analysis (EFA) was conducted on the current data to verify the factor structure within this setting. The EFA yielded a four-factor solution explaining 58.4% of the variance. The factors were labelled: (1) Cultural Awareness, (2) Cultural Knowledge, (3) Cultural Skills, and (4) Cultural Encounters. This factor structure aligns with the theoretical framework of cultural competence and confirmed the construct validity of the instrument in the Nigerian context.

Reliability of the Instrument

The instrument was tested for reliability using the test-retest method. Fourteen (14) copies of the instrument, representing 10% of the population, were administered to paediatric nurses at the University of Benin Teaching Hospital (UBTH), Edo State, which was not part of the main study population. After a two-week interval, the

same instrument was re-administered to the same respondents. The Intraclass Correlation Coefficient (ICC) was used to analyze test-retest reliability. The ICC was 0.84 (95% CI: 0.72–0.91), indicating good stability over time.

SCORING PROCEDURE

The NCCSQ utilizes a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The mean item score for each participant was calculated, resulting in a possible range of 1.00 to 5.00. The decision rule on the level of cultural competence was taken by getting the class interval of the scale. This was obtained by calculating the range ($5 - 1 = 4$) and dividing the product by 5 ($4/5 = 0.8$).

Mean Score Range	Interpretation
4.21 – 5.00	Strongly Agree / Very High
3.41 – 4.20	Agree / High
2.61 – 3.40	Neutral / Moderate
1.81 – 2.60	Disagree / Low
1.00 – 1.80	Strongly Disagree / Very Low

For the purpose of analysis and interpretation, these five categories were collapsed into three categories as follows:

Mean Score Range	Collapsed Category
3.41 – 5.00	High
2.61 – 3.40	Moderate
1.00 – 2.60	Low

Therefore, a mean score of 3.39 as obtained in this study falls within the Moderate range (2.61 – 3.40).

Data Collection and Analysis

The paediatric nurses were reached through their respective unit or ward heads. Google Forms was employed for data collection. The link to the Google Form was shared via the nurses' group WhatsApp chats, ensuring widespread reach and ease of participation. Responses were automatically collected and stored in a Google spreadsheet linked to the form.

The quantitative data were analyzed using IBM Statistical Package for Social Sciences (SPSS) version 29. For descriptive statistics, means, standard deviations, frequencies, and percentages were calculated. Inferential statistics applied included independent t-tests, chi-square tests and multivariable linear regression. The significance level was set at $p < 0.05$.

For multivariable analysis, we entered age, gender, educational level, prior formal cultural competence training (yes/no), professional rank, and facility type as independent variables, with cultural competence score as the dependent variable. This approach controlled for potential confounding variables that may influence cultural competence.

Ethical Considerations

Ethical approval was obtained from the Research Ethical Committee of the University of Port Harcourt (Approval Number: UPH/CEREMAD/REC/MM106/024). Informed consent was obtained from all participants

and participation was voluntary. All information obtained was kept confidential. The study adhered to the ethical principles of the Helsinki Declaration of 1975, as revised in 2013

RESULTS

Demographic Characteristics

A total of 114 paediatric nurses participated in the study, representing a response rate of 83.2% (114 out of 137 eligible participants). Table 1 presented the demographic characteristics of the participants

Table 1. Demographic Characteristics of Respondents (N=114)

Demographic Variable	Category	n	%
Age	Below 30 years	16	14
	31-40 years	30	26
	41-50 years	22	19
	51 years & above	46	40
Gender	Male	10	9
	Female	104	91
Educational Level	Diploma	38	33
	Bachelor's degree	62	54
	Master's degree	14	12
Years of Clinical Experience	<5 years	46	40
	5-10 years	14	12
	11-15 years	22	19
	>15 years	32	28
Professional Rank	Staff Nurse	68	60
	Senior Staff Nurse	30	26
	Nurse Manager	16	14
Facility Type	Tertiary	72	63
	Secondary	42	37
Training on Cultural Competence	Yes	22	19
	No	92	81

Regarding the age distribution, most of the participants were 50 years and above. This was followed by those between 31-40 years. Those between 41 and 50 years made up a smaller proportion of the participants while the less represented age group were those below 30 years. Overwhelming majority were female while a small proportion were male nurses. Regarding educational level, most nurses held a Bachelor's degree, followed by diploma and Master's degree holders.

In terms of years of clinical experience, the most represented were those with less than 5 years of clinical experience. This was followed by those with over 15 years clinical experience. Those with 11-15 years represented a smaller proportion, while those with 5-10 years made up the smallest proportion. Cumulatively, while those with less than 5 years constituted a notable proportion of the participants, those with over 5 years' experience made up the majority of the participants.

Regarding training on cultural competence, the majority had not received any training while only a small proportion indicated that they had received training on cultural competence

Research Question 1: Level of Cultural Competence

What is the level of cultural competence among paediatric nurses in tertiary and public secondary health facilities in Delta State?

Table 2. Level of Cultural Competence among Paediatric Nurses (N=114)

Cultural Competence Level	n	%	Mean	SD
Low	10	8.8	-	-
Moderate	53	46.5	-	-
High	51	44.7	-	-
Overall Score	-	-	3.39	0.44

Low = 1.00–2.60; Moderate = 2.61–3.40; High = 3.41–5.00

Table 2 presented both the percentage distribution of participants by their cultural competence level and the mean and standard deviation scores. The majority of the participants had moderate level of cultural competence. This was followed by those that had high level of cultural competence. Only a small proportion had low cultural competence.

The cultural competence mean score of the participants was 3.39. Based on the scoring guide (Moderate: 2.61–3.40), this mean score falls within the moderate range. The standard deviation score suggested that there was little variability in the distribution of cultural competence scores. Overall, the percentage distribution of nurses based on their level of cultural competence and the mean score suggested that the cultural competence of paediatric nurses in the tertiary and public secondary health facilities in Delta state was moderate.

Research Question 2: Influence of Clinical Experience

What is the influence of years of clinical experience on the cultural competence of paediatric nurses in tertiary and public secondary health facilities in Delta State?

Table 3. Influence of Years of Clinical Experience on Cultural Competence (N=114)

Years of Clinical Experience	n	Mean	SD	Cohen's d	Remark
<5 Years	46	3.23	0.42	-0.67	Medium Effect
5 years & above	68	3.51	0.42		

Results in Table 3 indicated that the cultural competence mean scores of paediatric nurses with less than 5 years of clinical experience was lower (3.23, which falls within Moderate range: 2.61–3.40) while mean score for those with 5 years and above years of experience was higher (3.51, which falls within High range: 3.41–5.00). This shows a mean difference in favour of those with higher years of clinical experience. The Cohen's d value

indicated that years of clinical experience has medium effect on cultural competence of nurses whereby those that had more years of clinical experience had higher cultural competence.

Hypothesis 1: Association between Level of Cultural Competence and Years of Experience

H₀₁: There is no significant association between the level of cultural competence and the years of clinical experience of paediatric nurses in tertiary and public secondary health facilities in Delta State.

Table 4. Association between Level of Cultural Competence and Years of Clinical Experience (N=114)

Cultural Competence Level	<5 Years n(%)	5 years & above n(%)	Total
Low	8 (17.4)	2 (2.9)	10
Moderate	20 (43.5)	33 (48.5)	53
High	18 (39.1)	33 (48.5)	51
Total	46 (100)	68 (100)	114
$\chi^2(df = 2) = 7.22, p = 0.03$ (Significant)			

The result displayed in Table 4 revealed that there was a significant association between level of cultural competence and paediatric nurses' years of clinical experience. The null hypothesis was rejected since the p-value was less than 0.05 level of significance.

The percentage distribution suggested that nurses with lower years of clinical experience were more likely to have low cultural competence compared to those with higher years of experience who had low cultural competence. Furthermore, those with more years of experience are more likely to have high cultural competence compared to those with lower years of experience.

Hypothesis 2: Mean Difference in Cultural Competence by Years of Clinical Experience

H₀₂: Years of **clinical** experience does not have a significant influence on the cultural competence of paediatric nurses in tertiary and public secondary health facilities in Delta State.

Table 5. Mean Difference in Cultural Competence by Years of Clinical Experience (N=114)

Source of Variation	n	Mean	SD	df	t	p	Remark
<5 Years	46	3.23	0.42	112	-3.54	0.001	Significant
5 years & above	68	3.51	0.42				

The independent samples t-test presented in Table 5 revealed that there is a significant difference in the mean cultural competence scores of less experienced paediatric nurses (<5 years clinical experience) and experienced paediatric nurses (5 years & above clinical experience). The null hypothesis was rejected since the p-value was less than 0.05 level of significance.

MULTIVARIABLE REGRESSION ANALYSIS

To control for potential confounding variables that may influence cultural competence, a multivariable linear regression analysis was conducted. Table 6 presented the results of the regression model.

Table 6. Multivariable Linear Regression Analysis of Factors Associated with Cultural Competence (N=114)

Variable	β	SE	t	p	95% CI
Years of Clinical Experience	0.21	0.06	3.82	<0.001	0.10, 0.32
Age	0.08	0.05	1.52	0.131	-0.02, 0.18
Gender (Male vs Female)	0.05	0.08	0.63	0.529	-0.11, 0.21
Educational Level	0.16	0.07	2.42	0.017	0.03, 0.29
Prior Cultural Competence Training	0.19	0.08	2.38	0.023	0.03, 0.35
Professional Rank	0.09	0.06	1.48	0.141	-0.03, 0.21
Facility Type (Tertiary vs Secondary)	0.06	0.07	0.89	0.376	-0.08, 0.20
Model Summary	$R^2 = 0.29$	Adj. $R^2 = 0.25$	$F(7, 106) = 6.18$	$p < 0.001$	

A multiple linear regression analysis was conducted to determine the extent to which cultural competence is dependent upon seven predictor variables. The overall model was statistically significant, $F(7, 106) = 6.18$, $p < 0.001$, accounting for approximately 29% of the variance in cultural competence scores ($R^2 = 0.29$, Adjusted $R^2 = 0.25$). Specifically, cultural competence was found to be significantly dependent on *years of clinical experience* ($\beta = 0.21$, $p < 0.001$), *educational level* ($\beta = 0.16$, $p = 0.017$), and *prior cultural competence training* ($\beta = 0.19$, $p = 0.023$). Among these, clinical experience emerged as the most robust predictor, indicating that as healthcare professionals accumulate more years on the job, their cultural competence increases correspondingly, even after accounting for other factors. Furthermore, higher educational attainment and formal training in cultural competence were similarly associated with enhanced cultural competence scores. Conversely, cultural competence did not exhibit a significant dependency on age, gender, professional rank, or facility type (all $p > 0.05$). These findings collectively suggest that cultural competence is primarily shaped by modifiable, experience-based and education-based factors with clinical experience serving as the single strongest driver in the mode.

DISCUSSION

Demographic Characteristics

The demographic profile of the participants revealed important characteristics relevant to understanding cultural competence in this context. The majority of participants were female, which is consistent with the global nursing workforce where nursing remains a female-dominated profession (Nickitas & Pontes, 2020). This finding aligns with other studies conducted in Nigeria and other African countries where female nurses constitute the majority of the nursing workforce (Berie et al., 2021; Geleta et al., 2021).

Regarding age distribution, the largest proportion were aged 51 years and above, suggesting a relatively mature workforce. This finding is notable because older nurses typically have accumulated more years of **clinical** experience, which may contribute to their cultural competence development. The finding that the majority of participants had more than 5 years of experience supports this observation.

A concerning finding was that the majority of participants had received no formal training on cultural competence. This is consistent with international findings. (Červený & Tóthová, 2024) found that most nurses in both Slovakia and the Czech Republic had not received cultural diversity training. Similarly, Cervený et al. (2020) reported that a majority of nurses in the Slovak healthcare system received no diversity training. The high proportion of nurses without formal training represents a critical educational gap that requires urgent attention from nursing educators and policymakers.

Level of Cultural Competence among Paediatric Nurses

The findings revealed that the majority of nurses had a moderate level of cultural competence, followed by a substantial proportion who had a high level, and only a small proportion who had a low level. The overall mean score confirmed that the cultural competence of paediatric nurses in the study area was moderate, as it falls within the moderate range on the 5-point Likert scale.

This finding may be attributed to several factors. First, the multi-ethnic nature of Delta State, which is home to diverse ethnic groups including Urhobo, Igbo, Itsekiri, and Ijaw, among others, may provide nurses with frequent opportunities for cross-cultural encounters. These daily interactions with patients from different cultural backgrounds likely contribute to the development of foundational cultural awareness and sensitivity. Second, the absence of formal training on cultural competence among the majority of respondents may explain why cultural competence remained at a moderate level rather than high. Without structured education on transcultural nursing principles, nurses may rely on experiential learning alone, which may not be sufficient to achieve high levels of cultural competence across all its dimensions.

This finding is consistent with several international studies. (Osmancevic et al., 2023) reported a moderate to high level of cultural competence among nurses in Austrian acute care settings. Yadollahi et al. (2020) found that the mean score of nurses' cultural competence in Iranian hospitals was at an average level. (Ślusarska et al., 2023) concluded that both Polish and Lithuanian nurses demonstrated an average level of cultural competences. These consistent findings across different geographical contexts suggest that moderate cultural competence is a common phenomenon among nurses globally.

However, the finding contrasts with studies that reported lower levels of cultural competence. Gudu et al., (2024) found that the overall cultural competence mean score was low among healthcare providers in Ethiopia with only a small proportion achieving cultural competence. Geleta et al., (2021) reported low to moderate cultural competence among nurses in Ethiopian tertiary hospitals. The relatively higher cultural competence scores in the current study compared to Ethiopian studies may be attributed to the multi-ethnic population of Delta State providing more frequent cross-cultural encounters.

Influence of Years of Clinical Experience on Cultural Competence

The findings revealed that nurses with less than five years of clinical experience and those with five years and above differed in their cultural competence scores, with more experienced nurses demonstrating higher cultural competence. The effect size indicated a medium influence, suggesting that years of **clinical** experience has a meaningful influence on cultural competence.

This finding may be attributed to several factors. The accumulation of cultural encounters over time provides experienced nurses with repeated opportunities to interact with patients from diverse cultural backgrounds. Each encounter serves as a learning experience, allowing nurses to develop cultural knowledge, refine communication strategies, and build confidence in cross-cultural situations. Experiential learning through years of clinical practice enables nurses to observe, reflect upon, and internalize cultural nuances that cannot be taught in classroom settings. Longer tenure in the healthcare system may expose nurses to a wider variety of cultural situations, including managing culturally complex family dynamics and navigating religious and traditional health beliefs.

This finding is strongly supported by existing literature. Zeleke et al., (2024) found that clinical experience was among the factors influential in determining the mean score of cultural competence among nurses in Ethiopian public hospitals. Similarly, Liu et al., (2022) found that the number of years of experience as a Nurse Practitioner had a statistically significant correlation with overall clinical competence in Taiwan. Birhanu et al., (2023) found that experience with previously working in different healthcare settings was associated with cultural competence.

The finding can be explained through the lens of experiential learning theory. (Červený & Tóthová, 2024) found that cultural competence was significantly associated with duration of clinical practice. Through repeated interactions with patients from diverse cultural backgrounds, nurses develop cultural skills, knowledge, and

sensitivity. This process aligns with Kolb's experiential learning cycle, where concrete experiences lead to reflective observation, abstract conceptualization, and active experimentation, ultimately enhancing competence.

However, it is important to note that the finding of higher cultural competence among experienced nurses contrasts with studies that suggest experience alone may not guarantee cultural competence. (Ślusarska et al., 2023) found diversity in the level of cultural competences depending on age, education, and clinical experience, suggesting that the quality of experiences and the presence of reflective practice may mediate the relationship between experience and competence.

Association between Years of Clinical Experience and Level of Cultural Competence

Hypothesis one examined the association between years of clinical experience and level of cultural competence. The analysis revealed a significant association. The percentage distribution showed that nurses with lower years of clinical experience were more likely to have low cultural competence compared to those with higher years of experience. Furthermore, nurses with more years of experience were more likely to have high cultural competence compared to those with lower years.

This significant association corroborates the findings of Zeleke et al., (2024) who identified **clinical** experience as a predictor of cultural competence mean scores. The finding also aligns with Liu et al. (2022) who found significant correlations between years of experience and clinical competence. The association can be understood through the framework of experiential learning theory, which posits that learning occurs through the transformation of experience.

Savas and Tuzcu (2022) found that factors such as meeting individuals or families from different cultures, healthcare services increased the level of cultural competence in healthcare professionals. These factors represent forms of cultural exposure that accumulate over time, supporting the notion that experience enhances cultural competence. In the context of Delta State, nurses with longer clinical experience have likely cared for patients from the diverse ethnic groups in the region, thereby building a repository of cultural knowledge and skills.

However, Cervený et al., (2020) found that only a minority of nurses perceived themselves as very culturally competent to care for people from other cultures, despite variations in age and experience. This finding highlights the need for intentional cultural diversity education alongside experiential learning. Experience without theoretical grounding may lead to the reinforcement of stereotypes or the development of superficial cultural knowledge rather than deep cultural competence.

Significant Difference in Cultural Competence Based on Years of Clinical Experience

Hypothesis two examined whether there is a significant difference in cultural competence scores between nurses with less than five years of experience and those with five years and above. The analysis revealed a significant difference, with experienced nurses scoring higher than less experienced nurses.

This finding provides strong evidence that years of clinical experience significantly influences cultural competence among paediatric nurses. The result is consistent with Zeleke et al. (2024) who found that **clinical** experience was a significant predictor of cultural competence in Ethiopian nurses, and with Liu et al. (2022) who found significant correlations between experience and competence among Nurse Practitioners in Taiwan.

The significant difference can be attributed to several factors. First, experienced nurses have had more cultural encounters over their careers. (Dobrowolska et al., 2020) found that exposure to cultural diversity in different ways influences the development of cultural competence. Second, experienced nurses may have had more opportunities for informal learning through observation of colleagues, mentorship, and reflective practice. Third, experienced nurses may have developed greater confidence in their abilities, which enhances their willingness to engage with culturally diverse patients.

The significant difference between experience groups has important implications for nursing practice and education. It suggests that novice nurses may need additional support in developing cultural competence.

Mentorship programmes that pair less experienced nurses with experienced colleagues who demonstrate high cultural competence could facilitate the transfer of cultural knowledge and skills.

For experienced nurses, the finding validates the value of their accumulated experience and suggests that they have important roles to play as mentors, role models, and resources for cultural competence development. However, experience alone may not be sufficient; as Cervený et al. (2020) noted, culturally competent care is a professional imperative that may be enhanced by cultural diversity education and training for nurses at all experience levels.

Multivariable Analysis: Controlling for Confounders

The multivariable regression analysis revealed that, after controlling for potential confounders, years of clinical experience remained a significant independent predictor of cultural competence. This strengthens the evidence that clinical experience has a genuine effect on cultural competence beyond the influence of factors such as age, gender, education, or prior training.

It is noteworthy that educational level and prior cultural competence training also emerged as significant predictors. This suggests that cultural competence development is multifaceted and influenced by both experiential and educational factors. The finding that prior training predicts higher competence underscores the importance of formal education in cultural competence development.

The collinearity between years of experience, age, and professional rank indicates that these variables are interrelated. This is expected, as nurses with longer experience tend to be older and hold higher professional ranks. Consequently, while experience appears to be a significant predictor, its effect may be partially mediated by other factors that accompany career progression.

Self-Report Bias and Online Administration Considerations

The reliance on self-reported measures exposes the study to social desirability bias, where participants may have overestimated their cultural competence to align with perceived professional expectations. Future studies could incorporate objective measures or observation-based assessments to complement self-report data.

The online administration of the questionnaire may have introduced selection bias, as it inherently excluded nurses with limited internet access or lower digital literacy. This could potentially limit the generalizability of our findings to the entire Nigerian nursing workforce, particularly those in rural or resource-constrained settings.

Strengths

This study has several strengths. First, the high response rate minimizes non-response bias and enhances the representativeness of the findings. Second, the use of a census approach in the selected facilities eliminated sampling error and ensured that findings represented the entire population of paediatric nurses in the facilities studied. Third, the questionnaire demonstrated strong content validity through expert review and good internal consistency. Fourth, the study addresses a critical evidence gap regarding cultural competence among paediatric nurses in southeastern Nigeria, where limited empirical data previously existed. Fifth, the inclusion of effect size (Cohen's *d*) provides a measure of the practical significance of the findings beyond statistical significance. Sixth, the multivariable regression analysis controlled for potential confounders, strengthening the validity of the findings regarding the independent effect of clinical experience. Seventh, the detailed validation process enhances the appropriateness of the instrument for the Nigerian context.

Limitations

This study has several limitations. First, it was restricted to one state (Delta State), limiting generalizability to other regions with different cultural dynamics. Second, the cross-sectional design precludes causal inferences; only associations can be described. Third, self-reported measures may have introduced social desirability bias, while online administration may have excluded nurses with limited internet access, introducing selection bias. Fourth, the. Fifth, potential confounders such as multicultural exposure outside the workplace and personal cultural background were not comprehensively assessed.

CONCLUSION

The majority of paediatric nurses in Delta State demonstrated moderate cultural competence with fewer than half achieving high competence. Most nurses had never received formal cultural competence training, representing a critical educational gap. Also, Nurses with five or more years of clinical experience scored significantly higher than their less experienced colleagues, with a medium effect size. After controlling for confounders, years of clinical experience remained a significant independent predictor of cultural competence. However, experience alone was insufficient for achieving high cultural competence, as even experienced nurses reached only moderate levels without formal training. Structured training is essential to convert experiential learning into high-level cultural competence.

RECOMMENDATIONS

For Clinical Practice

1. Given that the majority of paediatric nurses demonstrated only moderate levels of cultural competence, it is recommended that the Delta State Ministry of Health and hospital managements establish targeted cultural competence improvement programmes aimed at moving the majority of nurses from moderate to high competence levels.
2. Since the majority of paediatric nurses had never received any formal training on cultural competence, it is recommended that all tertiary and public secondary health facilities in Delta State mandate and provide formal cultural competence training for every paediatric nurse.

For Nursing Education and Training

3. Considering that paediatric nurses with five or more years of experience had significantly higher cultural competence scores, it is recommended that experienced paediatric nurses be designated as mentors to guide less experienced nurses through structured peer mentoring programmes focused on cultural competence development.
4. The significant statistical association between years of **clinical** experience and level of cultural competence suggests that nurse managers should leverage experienced nurses as cultural competence trainers and incorporate years of experience as a criterion for selecting cultural competence champions in each unit.
5. Given that experience alone was insufficient to achieve high cultural competence, it is recommended that nursing education programmes integrate cultural competence training throughout the curriculum, ensuring that both pre-service and in-service nurses receive structured education on transcultural nursing principles
6. Since educational level emerged as a significant predictor of cultural competence in the multivariable analysis, it is recommended that continuing education opportunities be provided to nurses with lower educational qualifications to enhance their cultural competence.

For Institutional and Policy Reform

7. The significant influence of years of experience on cultural competence suggests that healthcare institutions should invest in retention strategies to maintain an experienced nursing workforce. It is recommended that competitive compensation packages, career advancement opportunities, and supportive work environments be provided to retain experienced paediatric nurses.
8. The finding that the majority of nurses had received no formal training highlights the need for institutional policies mandating cultural competence training. It is recommended that hospital managements establish cultural competence as a mandatory component of annual staff development programmes.

9. Healthcare policymakers should consider integrating cultural competence into the national nursing curriculum and licensure requirements to ensure that all nurses entering the profession possess foundational cultural competence.

For Future Research

10. Longitudinal studies are recommended to establish causal relationships between clinical experience and cultural competence development over time.
11. Studies that include objective measures of cultural competence alongside self-report measures would help address the potential for social desirability bias.
12. Research examining the effectiveness of specific cultural competence training programmes in the Nigerian context would provide valuable evidence to guide educational interventions.
13. Qualitative studies exploring the lived experiences of nurses in developing cultural competence through clinical practice would provide rich insights into the mechanisms through which experience enhances competence.

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