Advances in Medical Education and Practice

Dovepress

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ORIGINAL RESEARCH

Cultural Competence in Ophthalmic Dispensing Education: A Qualitative Study

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Purpose: Understanding and acknowledging cultural diversity in healthcare is essential in providing culturally competent care. Higher education institutions are critical to providing students with the necessary knowledge, attitudes, and skills to respond to cultural diversity in various contexts. Cultural competence teaching in ophthalmic dispensing education has emerged as an essential concept that needs to be included in the curriculum. This study explored ophthalmic dispensing lecturers' understandings, experiences, and attitudes in teaching cultural competence.

Methods: This study used a qualitative approach within an interpretivist paradigm by conducting semi-structured interviews with lecturers (n = 7) in the ophthalmic dispensing program. Braun and Clarke's framework for thematic analysis was utilized. The research was conducted at an ophthalmic dispensing department at a South African university.

Results: The analysis of the semi-structured interviews indicated three main themes of importance regarding factors influencing cultural competence education in the ophthalmic dispensing curriculum: the interplay between experiences and understandings of cultural competence, cross-cultural exposure and teaching practices, and inclusion of cultural competence into the curriculum. The participants recognized that cultural competence was not explicitly included in the curriculum. Including culture in education was rather unsystematic and, in most cases, unplanned.

Conclusion: Further training of lecturers on cultural competence skills and evidence-based teaching and assessment strategies are required to assist in developing curricula that include cultural competence.

Keywords: ophthalmic education, cross-cultural exposure, cultural competence, ophthalmic dispensing teachers, South Africa

Introduction

Ophthalmic dispensing professionals and their patients are often from different cultural backgrounds. Recognizing cultural diversity in a healthcare setting is paramount in providing quality healthcare, including eyecare.[1] Healthcare professionals, which includes ophthalmic dispensing professionals, must provide services that consider their patients' cultural values, beliefs, and practices.[1,2] These practitioners are encouraged to be critically aware of their own cultural backgrounds, values, and beliefs and not to impose these on their patients and create toxic cross-cultural differences in this way.[3]

Defining cultural competence is context dependent. There is no settled definition of the term, as it is argued that cultural competence straddles many disciplines.[4] As defined by Govender et al,[5] cultural competence is

> the process by which individuals and systems respond respectfully and effectively to people of all cultures, languages, classes, races and ethnic backgrounds in a way that recognizes, affirms, and values the worth of the individual and protects and preserves the dignity of each.

The lack of cultural competence within an individual or a health organization may negatively affect patients' health outcomes.[1,6] Due to cross-cultural differences, misunderstandings and poor communication may arise, resulting in poor

Received: 25 September 2023
Accepted: 13 December 2023
Published: 20 June 2024

treatment adherence, lack of trust, poor patient rapport, and pronounced health disparities.[7,8] These may be further exacerbated by social, financial, political, and geographical factors.[9]

Depending on their location, healthcare facilities in South Africa may still show remnants of the apartheid era.[10] During the apartheid era, the healthcare system was fragmented and discriminatory towards different racial groups.[11] Healthcare professionals working in specific communities may not represent their patient base due to the unbalanced workforce distribution, especially eye care professionals such as optometrists and ophthalmic dispensing professionals, who are more common in urban areas.[12–15] Uncorrected refractive errors and other ocular anomalies that can be avoided are common in rural areas due to this limited workforce of eye care professionals. This unequal distribution of health professionals is also enhanced by the lack of compulsory community services for newly qualified optometry and ophthalmic dispensing graduates.[16]

Reports of discrimination, preferential treatment, and prejudice are still being reported by patients, together with implicit bias reported by health professionals.[17,18] These reports not only occur in South Africa but globally. The COVID-19 pandemic has amplified health inequalities, where disadvantaged groups have been disproportionately affected by the pandemic.[19,20] Poor communities continue to suffer due to limited access to healthcare services. Due to these issues of cultural differences and health disparities, the need to address diversity and cultural awareness in health professions education has been gaining significance.[21]

Culturally competent healthcare professionals and health systems will allow better quality healthcare for patients with diverse beliefs, values, and practices. Cultural competence education has also been recognized as a strategy for reducing health disparities. Higher education institutions must ensure that health professionals develop the clinical and cultural competence necessary for clinical practice.[22,23] Professional bodies have recognized the importance of this, and some have developed guidelines to assist program developers and educators with cultural competence education.[24,25] However, anecdotal evidence suggests that health professions educators need help including cultural competence concepts in the curriculum.[26,27] There are several reasons, such as an already crowded curriculum, lack of time, lack of institutional support for cultural competence, and academic staff feeling underprepared to provide cultural competence education.[28]

To accommodate some of these challenges, several changes are likely required to include cultural competence in the ophthalmic dispensing curriculum.[29] In ophthalmic dispensing education, lecturers who provide theoretical and clinical education play an essential role in developing cultural competence among their students. However, minimal literature exists that seeks to understand lecturers' perceptions and attitudes toward including cultural competence in a curriculum, particularly in ophthalmic dispensing education and South Africa. Thus, this study aimed to explore ophthalmic dispensing lecturers' understandings, experiences, and attitudes toward including cultural competence in ophthalmic dispensing and potentially develop recommendations for the curriculum.

Methods

Research Design

This qualitative study used an interpretive research paradigm to explore ophthalmic dispensing lecturers' understanding, experiences, and attitudes on teaching cultural competence.

Study Participants and Study Context

All ophthalmic dispensing lecturers at one South African Higher Education Institution were invited to participate in the study, of whom seven (n=7) agreed. While recognizing the principal researcher's role as a lecturer in the study area, they consistently acknowledged their positionality and maintained a reflective stance throughout the data collection and reporting process. The Health Professions Council of South Africa defines ophthalmic dispensing professionals as

> autonomous, regulated (licensed/registered) health professionals who dispense and fit spectacles and other optical aids, working from prescriptions written by optometrists.

[30] The ophthalmic dispensing program is only offered in one university in Africa. The program is a 3-year diploma, and graduates are referred to as dispensing opticians who then register with the professional body and practice independently.

Data Collection methods

This study conducted semi-structured individual interviews to explore the ophthalmic dispensing lecturers' understanding, experiences, and attitudes toward cultural competence education. An interview schedule was developed to address questions related to how the participants understood culture and its impact on health, how their own culture may influence their knowledge of the concept of cultural competence and its influences on teaching pedagogies, and lastly, the enablers and barriers of the inclusion of culture in ophthalmic dispensing education. The interview schedule was pilot-tested with one optometry lecturer at a different South African institution. Following the pilot testing, the questions were re-phrased accordingly (Box 1).[31] The interviews were conducted in English during July 2022. The interviews lasted between 45 and 60 minutes each, using the Microsoft Teams online platform.

Data Analysis

The researchers recorded and transcribed the interviews verbatim to ensure data familiarization. Thematic analysis using Braun and Clarkes' approach was applied and began concurrently with data collection.[32] This allowed for creating and modifying codes through an iterative process. It finally led to the forming of well-defined categories, which were then organized into themes.

Quality Assurance

To enhance the study's rigor, the researchers analyzed the anonymized transcripts with the assistance of an expert coder. An audit trail of the researchers' decision-making process and reflexivity was kept. The author also kept field notes and observations during the interview process. The authors also communicated frequently to promote further discussions on potential emerging themes and possible biases. Member checking was also conducted to further add to the quality of the data.

Ethical Considerations

Permission to conduct the study was obtained from the Stellenbosch University Health Research Ethics Committee (S22/02/020). Institutional approval for the study was also received before commencing. Informed consent was obtained from all the participants, and confidentiality was maintained throughout the study. The informed consent agreement also included the publication of anonymized responses.

Results

A total of seven ophthalmic dispensing lecturers participated in this study. The majority of the participants were female (n=4) and had between 2 and 30 years of experience as a lecturer in ophthalmic dispensing, with a mean experience of 14 years. The average age of the participants was 46 years. The participants were of diverse races, with two participants who were Black Africans, two who were mixed race, two who were of Indian descent, and one who was Caucasian. Most participants originated from various parts of South Africa, and only one had a migrant background. Most participants held a master's degree, and only one held a PhD.

Box 1 Questions of the Interview Guide developed by the researchers

- What is your understanding of the word "culture"?
- How would you define cultural competence?
- How did you learn about cultural competence?
- Do you think cultural competence is essential in the ophthalmic dispensing degree? If so, why?
- How is cultural competence showing in the ophthalmic dispensing curriculum?
- How would describe your ability in teaching/including cultural competence?
- Are you familiar with any strategies we can use to evaluate cultural competence in the curriculum?
- What can we add to improve cultural competence teaching in our curriculum?
- What are the barriers of including cultural competence in the ophthalmic dispensing curriculum?

Three main themes were identified through the thematic analysis: interplay between experiences and understandings of cultural competence, cross-cultural exposure and teaching practices, and the inclusion of cultural competence into the curriculum.

Theme 1: The Interplay Between Experiences and Understandings of Cultural Competence

The participants were asked about their understanding of cultural competence. Personal experiences with cultural diversity influenced how they understood and incorporated cultural competence in their teaching. These unique experiences included reflecting on their younger years, previous experiences as full-time practitioners in ophthalmic dispensing practice, and other life experiences, such as traveling abroad. All these experiences influenced how they understood the concept of cultural competence and its applicability in ophthalmic dispensing education. One participant expressed the following:

> …But when I was examining patients and seeing patients of different cultures, they would see me in a particular light, and I would go so far as to say, and I'm generalizing, that some members of certain cultures or races rather, particularly the more disadvantaged ones, would hold me up in the higher regard than my other colleagues who are of different culture or race as me being a white male. (P4)

Another participant said the following:

> …Being okay and comfortable with the different patients I see. And making them feel comfortable with me as their eyecare professional. (P2)

The respondents expressed that awareness and sensitivity are integral in the striving for cultural competence. This view was provided by one of the participants:

> …Understanding and recognizing your belief system, where you come from, and your thoughts. The second part of cultural competence is being sensitive enough to understand someone else's point of view, whether it is a patient or a student or whether it is someone you are chatting to or someone you meet in the street. (P3)

All the participants acknowledged the importance of cultural competence in health professions education, particularly ophthalmic dispensing education. Including cultural competence in the ophthalmic dispensing curriculum was seen as essential in providing the students with the necessary skills to provide culturally competent care.

> … it is essential in our ophthalmic science degree because at the end of the day, we are producing clinicians or, should I say, health providers. We are producing members of society. (P7)

The participants further acknowledged that cultural differences exist in the classroom, outside of the classroom, in clinical settings, or even in the workplace. Therefore, the participants expressed that cultural competence is related to adapting one's beliefs and practices to exhibit the necessary skills required in cross-cultural settings.

> …cultural competence also means understanding it from the other person's point of view, understanding that someone comes from a different set of beliefs, cultural backgrounds, education, religion, socio-cultural, economic conditions, etcetera. Understanding their point of view, their way of seeing the world or their beliefs as well being sensitive to it, you know, not necessarily jumping down their throat because they think about the world differently than you. (P4)

One participant acknowledged the relationship between culture and health.

> …I mean, there is a relationship between health and culture again. There are people of certain ages, certain racial groups, and certain lifestyles that are more prone to certain conditions than others. So, there is a link between cultural lifestyle practices and health. (P7)

It was evident that the participants acknowledged the importance of cultural competence and the factors that influence how they perceive the concept of cultural competence. The findings also suggested that the participants perceived that

their own culture influenced their teaching practice. The findings further indicated that each participant had exposure to cultural diversity before entering their teaching and academic careers. These experiences influenced how the participants understood cultural competence.

Theme 2: Cross-Cultural Exposure and Teaching Practices

This theme is focused on how the participants created opportunities for students to be exposed to cultural diversity through their teaching practices, both inside and outside the classroom. The participants acknowledged that exposure to cultural diversity is essential in developing cultural competence.

> …I always encouraged, you know, group work of mixed and diverse groups, as students would typically choose to work only with students of the same language, of similar cultural background, or other students who look like them, I guess. (P4)

The participants encouraged discussions among students on cultural issues. The participants also agreed that allowing "uncomfortable" conversations creates an open space where students would feel free to engage in matters of culture.

> …the most important thing is getting students to ask questions for things they do not understand and what they feel uncomfortable with regarding the issues of race, ethnicity or any ethical dilemmas they may face in practice. (P5)

Some participants also used service-learning initiatives to develop students' cultural competence. The participants regarded service-learning experiences as cultural immersion experiences within their local context, as illustrated by the following quotations:

> … (students performing visual screenings at a nursing home) Some patients were Afrikaans speaking, and our students were not. The interaction between students who did not speak Afrikaans but needed to engage with these patients…the students showed graciousness and sensitivity towards the patients and were able to adapt. Then, the students had to reflect on that process later in class. Furthermore, I think that was a useful, valuable, transformative experience for the students and patients. (P6)

It was evident that lecturers' exposure to cultural diversity inside and outside the classroom affected how they conducted cultural competence education. The cultural diversity the students were exposed to was used as a teaching tool to enhance student's awareness and knowledge of the relationship between culture and health.

Theme 3: Inclusion of Cultural Competence into the Curriculum

This theme focuses on the factors that affect the inclusion of cultural competence into the curriculum. The participants agreed that the institution's ophthalmic dispensing program is regarded as technical. The participants expressed the view that more emphasis is placed on the technical aspects of the course content as opposed to soft skills such as culture and cross-cultural communication skills.

> …you know, the opticianry program is kind of technical. It makes it a bit difficult to teach [issues of culture] in some instances as we focus on lens manufacturing and design, etc. (P7)

Even though the course's technical aspects seemingly take precedence over the so-called soft skills, issues of culture were regarded as part of the hidden curriculum. One of the participants mentioned the following:

> …It is inherent in the way I teach; I try to teach them to be professional and patient with people, hear and listen to people, and give respect. I think those are not things you teach as part of a course guide or in the lecture notes per se but actions… respect for people and listening to others, I think, come through with how you teach, and I hope my students mimic such behaviors. (P3)

The participants mentioned that there needed to be more clarity concerning cultural competence in the curriculum. It needed to be clear which learning outcomes were required to ensure culturally competent health professionals. As much as the regulatory body mentioned the need to develop cultural competence, there was no standardized procedure to implement this within the department. One of the participants said the following:

> …things like lifelong learning, appreciating diversity, cultural sensitivity, all those kinds of what they used to call critical outcomes are what we are looking at here… I do not see graduate attributes in the documentation I have come up with so far for the accreditation report or curriculum guidelines; it is not clear how we teach these skills – it is just mentioned. (P4)

One of the participants suggested that cultural competence training should be a common thread throughout the ophthalmic dispensing program:

> … It is not necessarily a fixed training, but rather you know it is a thread that should run through everything in the program. (P6)

The participants expressed that more awareness and knowledge of evidence-based teaching and assessment of cultural competence are needed. Also, its inclusion in the curriculum can enhance how students view and appreciate cultural diversity.

> …it's not seen as a measurable entity if you know, if it's not seen as an actual subject or having some credit-bearing value, you know? It is sometimes pushed to the side and seen as an additional load. (P1)

The lack of assessment may affect students' perception of the importance of cultural competence education:

> …I do not think students take it seriously as we usually do not assess cultural competence concepts. Assessment drives learning, and if students are not assessed on a particular topic – they would not pay attention to that concept. (P7)

Time and workload were mentioned as factors that may impede the inclusion of cultural competence in the ophthalmic dispensing curriculum.

> … there is always the pressure of time. There is always the pressure of assessments. There is always the pressure of assignments, and there is always the pressure of time to get through the curriculum. (P2)

The participants mentioned that training and support of the teaching staff could be an enabler and were required to facilitate the inclusion of cultural competence in the ophthalmic dispensing curriculum.

> …I think we need cultural competence and sensitivity training for us faculty members. Maybe it can be included in the induction program we have for new academics or even a workshop once a semester facilitated by the university or faculty (P5)

Discussion

The study aimed to explore ophthalmic dispensing lecturers' understandings, experiences, and attitudes toward cultural competence. Most of the study's participants acknowledged the importance of cultural competence in ophthalmic dispensing education. However, in line with the literature on cultural competence, the findings also illustrated the complexity of this concept.[33] There are several perspectives on the nature of cultural competence and how it should be implemented within a health professions curriculum or healthcare setting.[34] The participants agreed that cultural competence was one of the strategies that could be utilized to ensure equitable access to healthcare by persons of different races and ethnicities and ensure individualized care, and this is also expressed in the literature.[35–37]

The participants related cultural competence to aspects of culture, such as ethnicity and race, including their own upbringing. The participants also focused on the word culture and its role in healthcare provision. Understanding a patient's culture can provide the foundation for adequate eye care. Ophthalmic dispensing professionals should not only consider factors such as ethnicity and race. Instead, they should have a holistic view when providing eye care services to culturally diverse communities, considering the patient's age, gender, sexual orientation and identity, occupation, social and economic factors, and religion.[1] The participants in this study shared views similar to those of Truong and Selig that failure to recognize and acknowledge cultural differences may result in miscommunication and misunderstanding, resulting in poor health and visual outcomes.

A model by Papadopoulos et al,[38] which outlines the development of cultural competence, states that cultural competence progresses from cultural awareness to the acquisition of cultural knowledge to developing cultural sensitivity, which in turn leads to the development of cultural competence. As expressed by the respondents in the study, their

previous exposure as practicing eyecare professionals in culturally diverse settings played an essential role in developing their awareness and knowledge of other cultures. For some participants, exposure to cultural diversity led to awareness and reflection on their privilege. Other authors have also identified cultural awareness and sensitivity as constructs related to cultural competence.[39–41] Cultural awareness involves the recognition of unconscious biases, prejudices, and assumptions about people from cultural backgrounds different from one's own.[42] Cultural sensitivity is

> employing one's knowledge, consideration, understanding, respect, and tailoring after realizing awareness of self and others and encountering a diverse group of individuals.[43]

Both cultural awareness and cultural sensitivity are necessary to develop and strive towards cultural competence.

Health science students' awareness of their cultural background directly impacts their clinical exchanges and, to some extent, their clinical decision-making.[44] Health professionals and their patients are often from different cultural backgrounds and may have opposing views regarding healthcare practices. Therefore, the lack of awareness of their own cultural experiences and those of their patients may pose several issues that affect health outcomes.

It was clear that the lecturers who participated in the study perceived exposure to cultural diversity as integral in developing their cultural competence and, ultimately, that of their students. Creating opportunities for students to interact with persons from different cultural backgrounds, in and outside the classroom, can thus assist in developing their cultural competence. Being exposed to cultural diversity helps students become aware of the challenges related to cultural differences, such as feeling under-prepared to deal with diversity in clinical settings.[45] The same authors further argue that exposure to cultural diversity could highlight a lack of knowledge about the various cultures, thus creating the need to improve one's knowledge, attitudes, and skills. Using cultural diversity among the students in the teaching space can improve the teaching environment as the students would have opportunities to engage and reflect on their cultural differences. This can lead to facilitated discussions in the teaching space, an excellent tool for promoting cultural awareness and sensitivity. Students can be provided with cultural experiences they may not gain otherwise, such as engaging with students with different cultural backgrounds.[46]

Some participants perceived the ophthalmic dispensing program as technical, with little emphasis on patient interaction. Thus, topics related to culture seemed more distant as greater emphasis was placed on discipline-related technical aspects such as ophthalmic lens manufacturing, measurements, and dispensing of optical appliances such as spectacles, contact lenses, and low vision aids. This may indicate that cultural competence education runs the danger of having lower priority within the ophthalmic dispensing curriculum. There is a need for cultural competence training among ophthalmic dispensing educators and students,[1] which the participants also acknowledged.

Opposing views existed among the participants on including cultural competence in the ophthalmic dispensing program. Most participants expressed that the ophthalmic dispensing program does not explicitly include cultural competence but considered it part of the "hidden curriculum." The hidden curriculum refers to a

> set of implicit messages about values, norms, and attitudes that learners infer from behaviour of individual role models as well as from group dynamics, processes, rituals, and structures.[47]

The participants highlighted the importance of being "good" role models for the students. The hidden curriculum can negatively impact cultural competence education if students observe behaviours from their lecturers that are biased and discriminatory.[48] Students may be unsure whether the behaviour is genuinely biased or part of the clinical training.

Clinical teachers are crucial in implementing explicit and hidden curricula.[49] The participants expressed that issues of culture were not explicitly taught and assessed within the ophthalmic dispensing program at their institution. Still, cultural competence was considered part of the learning objectives of the discipline-specific major subjects within the program. This indicates that cultural competency teaching is "unstructured" in its integration within the ophthalmic dispensing curriculum. There is no verification that students are adequately taught the necessary competencies related to cultural competence.

The study findings indicate a need for clear guidelines for lecturers on the inclusion of cultural competence into the ophthalmic dispensing curriculum. The participants perceived the concept of cultural competence as necessary in ophthalmic dispensing education, but there is a need for a systematic approach to teaching cultural competence. Previous research

has illustrated the importance of cultural competence training in medical education[35] and ophthalmic dispensing education.[1] Implementing cultural competence education is complex.[21] According to the participants, they are primarily unprepared when opportunities for including cultural competence in classroom activities arise. Besides constant encouragement from the Professional Board for Optometry and Dispensing Opticians, this regulatory body needs to produce explicit guidelines about cultural competence training. Clear guidelines and standards are required for a systematic approach to implementing cultural competence in the ophthalmic dispensing curriculum.[50] Clear guidelines will assist with curriculum development toward including cultural competence and developing and assessing learning objectives.[50]

This study showed that commitment from the lecturers and the university administration is required to enhance the teaching and learning environment for developing students' cultural competence. The development of ophthalmic dispensing professionals who strive for cultural competence begins at the undergraduate level, and therefore, lecturers play an essential role in developing students' related knowledge, attitudes, and skills at the early stages of their careers. For this to occur, the lecturers also require training and development in cultural competence and education. The lack of teaching and assessment standards and guidelines that the lecturers can use harms the inclusion of cultural competence into the curriculum. Teamwork and coordination among the lecturers are also necessary to systematically incorporate cultural competence into the curriculum.

Limitations

One major limitation of the study is the relatively small sample size, as data was only collected at one university; it should be noted that only one university offers the ophthalmic dispensing program in South Africa. Thus, some elements and shortcomings in implementing cultural competence in ophthalmic dispensing education may have been overlooked. Despite these limitations, this study's perceptions of the ophthalmic dispensing lecturers were similar to other literature in health professions education.

Conclusion

The study revealed that providing ophthalmic dispensing students with the necessary skills to provide culturally competent eye care is essential in improving health outcomes. The study further suggested that these skills must be embedded throughout the program. For this to occur, support from the institution and the professional bodies is required to create a conducive learning space using the necessary resources. The lecturers require further training on cultural competence and its importance in healthcare. This is particularly important as current literature promotes a paradigm shift towards cultural humility.

It is recommended that discussions amongst the lecturers, regulatory bodies, and qualified ophthalmic dispensing and optometric professionals are needed to ascertain the required learning objectives considering the nature and needs of the country. This also includes discussions regarding assessment methods to measure these outcomes. Furthermore, a dedicated module or an in-depth workshop within the ophthalmic dispensing curriculum is necessary for cultural competence education. Preferably, the subject should be taught in the earlier levels of the program as this will provide them with the required conceptual foundation before cross-cultural clinical exposure. Students should be urged to continuously reflect on their experiences in the workplace and receive feedback on their reflections from their culturally competent lecturers. The lecturers should receive training on cultural competence and evidence-based teaching and assessment strategies related to this concept. Future research should focus on developing frameworks and guidelines relevant to ophthalmic dispensing education in the African context. A thorough review of cultural competence, humility, and safety concepts is also required for further research.

Acknowledgments

The authors thank Prof. Cecilia Jacobs (Department of Health Professions Education, Stellenbosch University) for her support and guidance in manuscript preparation.

Disclosure

The authors declare that they have no competing interests in this work.

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