

FACULTY AND STUDENTS' PERSPECTIVES ON CULTURAL COMPETENCE IN DENTAL EDUCATION

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ABSTRACT

Objective: This study explored faculty and students' perspectives on cultural competence in dental education at dental colleges in Abbottabad, Pakistan.

Material & Methods: A qualitative study design was used, involving four focus group discussions with 24 purposely selected participants (13 faculty members and 11 students). Each group included six participants. Discussions were audio-recorded, transcribed verbatim, and thematically analyzed based on Braun and Clarke's framework. Ethical approval was obtained from relevant institutional review boards, and informed consent was obtained from all participants.

Results: The analysis identified six interconnected themes: (1) limited formal training, (2) language barriers, (3) an intuitive reliance on ethical practice, (4) informal cultural exposure, (5) institutional constraints, and (6) perceived impact on patient care. While participants valued culturally responsive care, they frequently relied on improvised methods rather than formal guidance.

Conclusion: Faculty and students recognize the importance of cultural competence and demonstrate an intuitive understanding of its principles. However, the lack of a structured curriculum limits their ability to turn this awareness into consistent practice. Incorporating clear learning objectives, skill-based training methods (such as simulations and workshops), and faculty development initiatives into the curriculum could enhance cultural competence in dental education and improve patient outcomes.

Keywords: Cultural competence; Dental education; Dental colleges; Student perspectives; Faculty perspectives.

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INTRODUCTION

Cultural competence (CC) in healthcare means that physicians can provide care that addresses the social, cultural, and linguistic needs of their patients.¹ This skill greatly influences treatment outcomes and patient satisfaction in dentistry, where effective communication and rapport are essential. Dental professionals often serve patients from diverse ethnic, linguistic, and socio-economic backgrounds, making cultural understanding and sensitivity essential skills rather than optional ones. Students who learn about cultural competency are better able to

understand different health perspectives, fill in gaps, and deliver equitable care.²⁻⁶ It also improves the relationship between the patient and the provider and helps patients adhere to their treatment plans.⁷ Without CC training, patient care may suffer due to misunderstandings and communication challenges.⁸

Cultural competency is often not included in dental school curricula worldwide, despite its recognized importance. Some programs adopt structured methods like simulations or workshops that combine theory and practice, while others rely on informal approaches such as single lectures or awareness campaigns.^{4,6} These practices lead to limited exposure, leaving students underprepared for the complexities of real clinical settings.^{9,10} While informal learning through peer interactions or personal experience can be beneficial, it cannot replace formal training.^{7,8} The role of faculty is crucial in integrating CC into the practical curriculum, yet most instructors lack proper training themselves.¹¹ Without the necessary support, instructors

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cannot effectively teach or model cultural competence. This results in a fragmented approach that undermines the importance of cultural competence compared to other clinical and technical skills.^{11, 12}

CC in dental education has received limited scholarly attention in Pakistan.¹ There is a lack of data from smaller cities, with most research focusing on major urban areas. Abbottabad, a district in Khyber Pakhtunkhwa, features a diverse cultural landscape. Patients and students originate from various ethnic and language groups, including Pashtun, Hindko speakers, Kashmiri, Kohistani, and Gilgit-Baltistani tribes. In these regions, however, weak institutional resources and an underdeveloped curriculum often make cultural competence a secondary concern. This study addresses this gap by examining how faculty and students at dental colleges in Abbottabad perceive cultural competence. Understanding both groups' views on its importance, challenges, and integration potential provides insights into curriculum gaps and highlights opportunities to improve culturally responsive dental education in Pakistan.

MATERIALS AND METHODS

This qualitative study explored faculty and student perceptions of cultural competence in dental education across three dental colleges in Abbottabad, Pakistan. A qualitative approach was selected for its ability to capture participants' lived experiences and perspectives.

Approval of the study was obtained from the Advanced Studies and Research Board of Khyber Medical University in its 166th meeting held on December 12, 2024 (Ref. No. DIR/ORIC/KMU-AS&RB/RB/003035). The ethical approval was granted by the KMU-IHPER Ethics Board (Ref. No. 1-12/IHPER/MHPE/KMU/25-9, dated April 10, 2025). All participants received written information about the study's aims and provided informed consent. Confidentiality was maintained by anonymizing all transcripts, and participants were assured of their right to withdraw without penalty.

The research was conducted in Abbottabad, a culturally diverse district of Khyber Pakhtunkhwa, home to the Hazara, Pashtun, Kashmiri, and Gilgit-Baltistani communities. We used purposive sampling to select 24 participants: 13 faculty members (including professors, lecturers, and teaching staff) and 11 undergraduate dental students. Administrative and support staff were excluded because they were not directly involved in instruction.

Four focus group discussions (FGDs) were conducted, each comprising six participants. Sessions were arranged at convenient times for participants, audio-recorded with their consent, and enhanced with field notes to document non-verbal cues. A semi-structured interview guide featuring open-ended questions examined participants' comprehension of cultural competence, its significance in dental education, curricular integration, and obstacles to culturally sensitive care.

All FGDs were transcribed verbatim and analyzed using reflexive thematic analysis based on Braun and Clarke's six-step framework.^{13,14} This process started with repeatedly reading the transcripts to become familiar with the content, followed by generating initial codes. These codes were then grouped into potential themes, which were reviewed, refined, and clearly defined before the final report. To improve the validity and credibility of the results, member checking was carried out with a small group of participants, and peer debriefing with an experienced qualitative researcher helped confirm the interpretations. Throughout the process, reflexivity was maintained, with researchers actively considering how their own assumptions might influence data collection and analysis. Triangulation was achieved by combining member checking with peer review, further enhancing the credibility of the findings.

RESULTS

A total of 24 participants were involved in the study. Table 1 presents the characteristics of the study participants, with females representing the majority (62.5%, $n = 15$). The highest representation was from Ayub College of Dentistry (41.7%, $n = 10$).

The median age of participants was 37.5 years, with an interquartile range (IQR) extending from 25.0 to 44.5 years. Out of 24 participants, 13 (54.2%) were faculty members and reported their professional experience. The median experience was 14.00 years (8.0 – 16.0).

This section presents the study's results, organized around the key themes that emerged from the focus group discussions. Thematic analysis revealed six core themes: (1) limited formal training, (2) language barriers, (3) an intuitive reliance on ethical practice, (4) informal cultural exposure, (5) institutional constraints, and (6) Perceived Impact on Patient Care.

These themes reflect the perspectives of both faculty and students on cultural competence in dental education at the dental colleges in Abbottabad.

THEME 1: LIMITED FORMAL TRAINING

SUBTHEME 1. LIMITED FORMAL AWARENESS:

A prominent theme was the limited structured training in cultural competence or in a structured cultural-competence curriculum. Most participants reported learning about cultural issues through personal experiences rather than institutional guidance.

“We mostly learned from our own experiences. There were no formal training sessions or guidance provided before we came here.” (S4 - Female)

SUBTHEME 2. INFORMAL LEARNING:

Some participants recalled interacting with diverse communities during Dental camps, but these experiences were largely self-organized rather than institutional. Exposure also occurred through interactions with diverse peers in hostels.

“We had exposure during Dental camps... but those were not arranged by the college, rather by student organizations.” (S3 - Male)

“The diversity [in hostels] offers exposure... we gain informal experience” (S4 - Female).

THEME 2. LANGUAGE BARRIERS

Participants consistently identified language as a major barrier in patient care, especially when working with speakers of regional languages such as Pashto, Shina, and Kohistani. These challenges hindered effective communication and forced reliance on colleagues for translation.

“I only speak Urdu, so I cannot communicate with Pashto-speaking patients... I have to call a friend who knows Pashto.” (S5 - Female)

Participants viewed this challenge as a crucial aspect of cultural competence, emphasizing the importance of enhancing communication.

THEME 3. AN INTUITIVE RELIANCE ON ETHICAL PRACTICE

Although they lacked formal training, the participants demonstrated their understanding of culturally sensitive care through their personal experiences and ethical practices. They emphasized the importance of respecting patients' cultural backgrounds to earn their trust and help them feel comfortable.

“When we respect a patient's culture, they become more comfortable with us and open up during consultations.” (F3 - Female)

Participants frequently demonstrated cultural sensitivity, yet they recognized their deficiency in formal terminology or theoretical frameworks to articulate their actions.

nology or theoretical frameworks to articulate their actions.

“We are intuitively aligned with its principles... but we are not formally trained or educated on the concept itself.” (S9 - Female)

THEME 4. INFORMAL CULTURAL EXPOSURE

Many participants noted that residing and studying in culturally diverse settings—particularly hostels—provided avenues for informal engagement with various cultural norms, languages, and behaviours.

“Since most Dental colleges have students from across KPK, Gilgit Baltistan, and Kashmir... the diversity itself offers exposure.” (S4 - Female)

Participants believed that this indirect exposure was a good way to learn about other cultures, even though it wasn't very well organized.

THEME 5. INSTITUTIONAL CONSTRAINTS

Many participants expressed concern that cultural competence was not included in the curriculum. Some emphasized that cultural competence should be regarded as a fundamental aspect of Dental professionalism.

“There shouldn't be any barriers. Cultural competence should be a part of the curriculum.” (S10 - Female)

All participants agreed that training should go beyond just theory. It should also include practical tools like simulations, OSCEs, and group discussions.

“We need simulations with real and dummy patients, videos, role modelling, lectures, and OSCE stations to practically inculcate this idea.” (F12 - Female)

THEME 6. PERCEIVED IMPACT ON PATIENT CARE

Participants acknowledged that culturally competent care enhances rapport, communication, and patient

Table No 1: Characteristics of Study Participants (N = 24)

Characteristics		N (%)
Gender	Female	15 (62.5%)
	Male	9 (37.5%)
Professional Position	Faculty	13 (54.2%)
	Student	11 (45.8%)
Institute	Abbottabad International dental college	9 (37.5%)
	Ayub college of dentistry	10 (41.7%)
	Frontier Medical and Dental College	5 (20.8%)
Continuous variables		Median (IQR)
Age in Years		37.50 (25.0 - 44.0)
Experience in Years		14.00 (8.0 - 16.0)

satisfaction. Nonetheless, the insufficient structured training in cultural competence frequently led to trial-and-error approaches and sporadic failures in patient interactions.

"There is no proper training... so we can't share any impactful success stories. However, failures due to cultural misunderstandings have occurred." (F12 - Female)

DISCUSSION

This study explored faculty and student perceptions of cultural competence in dental education in Abbottabad, Pakistan. The results show that both groups recognize the importance of culturally sensitive care; however, their understanding is mainly intuitive, shaped by informal experiences rather than formal training. Six main themes emerged, highlighting a lack of formal education, language barriers, ethical yet unstructured practices, reliance on peer exposure, gaps in the curriculum, and institutional challenges. These themes are consistent with international evidence and shed light on the unique obstacles faced in smaller, resource-limited educational settings.^{6,7}

The most pressing issue identified was the lack of a structured cultural competence curriculum. Students and faculty both reported that their exposure was limited to personal experiences or chance encounters, with no formal curricular components. Previous studies have demonstrated the same trend: dental schools often depend on sporadic lectures or awareness sessions. These sessions do not equip students with the skills necessary to deliver cross-cultural care.^{15,16}

In our study, the reliance on experiential learning highlights a fragmented approach that risks leaving students unprepared for diverse clinical encounters. As Forsyth et al. (2020) note, cultural competence requires integration throughout the curriculum, blending theoretical knowledge with practical application in clinical and community settings.¹⁸ Without this framework, learning remains superficial and inconsistent.

Another common subtheme was how difficult it was to understand patients who spoke regional languages such as Pashto, Shina, and Kohistani when communicating with them. Students often relied on their peers for translation, leading to inconsistent care and reduced patient trust. These findings support international research indicating that language significantly affects access to healthcare, satisfaction, and adherence.^{15,16} Language barriers can make dental treatment less effective because

it's essential to explain treatments thoroughly and perform follow-up. Our study shows that although students recognized this issue, they rarely received institutional support such as interpreters, communication seminars, or guidance on managing multilingual consultations. This was a missed opportunity to incorporate communication skills into the development of a professional identity. Participants emphasized that living in a hostel and being among people from diverse backgrounds were excellent ways to learn about other cultures informally.

Students from Khyber Pakhtunkhwa, Gilgit-Baltistan, and Kashmir brought different languages and customs, broadening their perspectives. Other studies have found similar results: informal peer interactions increased cultural awareness but did not sufficiently improve professional skills.¹⁶

Although this exposure can provide a foundation, its effectiveness is limited without organized reflection or targeted application within clinical settings. Combining service-learning projects with supervised community engagement could transform casual exposure into intentional experiences that foster skill development. A common concern was that cultural competence does not receive enough focus in the dental curriculum. Faculty identified limited resources, insufficient faculty development, and a lack of institutional support as major barriers to integration.

These findings align with those of Forsyth et al. and Klenner et al., who state that institutional commitment is key to bringing cultural competence into health professions education.^{15,19} Even motivated faculty members cannot sustain CC programs without administrative support. In Abbottabad, the challenge is worsened by the fact that smaller institutions often lack the necessary resources and institutional backing.

IMPLICATIONS FOR DENTAL EDUCATION

Our study highlights the urgent need to integrate cultural competence training into Pakistani dental schools, especially in diverse areas like Abbottabad. Systematic methods should include specialized modules, simulations, Objective Structured Clinical Examinations (OSCEs), and reflective practices to ensure students gain both theoretical knowledge and practical skills.

Faculty development is just as important, as educators need to demonstrate culturally responsive care. Additionally, communication training tailored to regional linguistic diversity would directly address the obstacles

noted by participants. Building partnerships with local communities to provide language resources and culturally relevant case scenarios could further improve educational outcomes.

LIMITATIONS AND FUTURE DIRECTIONS

This study has a few limitations. Its focus on three colleges within a single district may restrict how applicable it is to other parts of Pakistan or internationally. Additionally, self-reported data are susceptible to social desirability bias, as participants might have portrayed themselves as more culturally knowledgeable than they truly are. Nevertheless, the findings provide valuable insights into a relatively underexplored environment and highlight systemic challenges that require further investigation. Future research could explore patient perspectives, evaluate pilot curricular initiatives, and examine the long-term impact of cultural competence training on dental practice.

CONCLUSION

This study highlights the importance of integrating cultural competence into dental education in Abbottabad. Although instructors and students inherently recognize its significance, their understanding remains limited due to the lack of formal instruction. Language barriers, curriculum gaps, and insufficient institutional support continue to hinder the delivery of culturally relevant care.

To advance, dental schools should establish cultural competency as a core learning objective, supported by structured teaching methods, practical assessments, and faculty development programs. Improving communication and language support, along with opportunities for community-based learning, can further strengthen training. By addressing these issues, dental schools in Pakistan can prepare graduates to provide equitable, patient-centered care that reflects the cultural diversity of the communities they serve.

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Following authors have made substantial contributions to the manuscript as under

Authors	Conceived & designed the analysis	Collected the data	Contributed data or analysis tools	Performed the analysis	Wrote the paper	Other contribution
Munir N	✓	✓	✗	✗	✓	✗
Asim N	✓	✗	✓	✓	✓	✗
Jamil B	✓	✓	✗	✗	✗	✓
Amir FN	✓	✗	✓	✓	✓	✗

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Ethical Approval:

This Manuscript was approved by the KMU-IHPER Ethics Board (Ref. No. 1-12/IHPER/MHPE/KMU/25-9. Dated: 10 04 2025



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