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Strengthening Indigenous cultural competence in dentistry and oral health education: Academic perspectives

Cathryn Forsyth[1] | Michelle Irving[1] | Stephanie Short[2] | Marc Tennant[3] | John Gilroy[2]

[1]The University of Sydney School of Dentistry, Westmead, New South Wales, Australia

[2]Faculty of Health Sciences, The University of Sydney, Camperdown, New South Wales, Australia

[3]International Research Collaborative, Oral Health and Equity, The University of Western Australia, Perth, Western Australia, Australia

Correspondence
Cathryn Forsyth, The University of Sydney School of Dentistry, Westmead, New South Wales, Australia.
Email: cathryn.forsyth@sydney.edu.au

Abstract

Introduction: Indigenous Australians continue to experience significant oral health disparities, despite numerous closing-the-gap initiatives. Higher education institutions and accrediting bodies recognise the need to incorporate Indigenous culture more widely into dentistry curricula to address these inequalities. This study aimed to define and explore current Indigenous cultural competence curricula, identify enablers and barriers for integration of Indigenous cultural competence curricula and ascertain innovative strategies to aid students in becoming culturally competent upon graduation, from academics' perspectives.

Methods: Academics from the Doctor of Dental Medicine (DMD) and Bachelor of Oral Health (BOH) programmes at the University of Sydney, School of Dentistry participated in semi-structured interviews to define and explore current and future curricula practices to enable students to become competent in Indigenous culture. Thematic analysis was conducted to synthesise academics' responses.

Results: Thirteen School of Dentistry academics participated in interviews. Following analysis of the data, six key themes emerged: Theme One: Transfer of Indigenous cultural knowledge, Theme Two: Barriers to developing Indigenous cultural curriculum. Theme Three: Importance of cultural immersion, Theme Four: Resources required for Indigenous cultural education, Theme Five: Proposed Indigenous cultural content, Theme Six: Strategies to incorporate Indigenous culture into curricula.

Conclusion: Improving Indigenous cultural competence amongst dentistry academics and students requires an educational and philosophical shift, incorporating the social determinants of health whilst maintaining the strengths of the biomedical foundations of dental care. It requires the inclusion of an informed history of Indigenous Australians, immersion within Indigenous communities and reflection upon these experiences, to facilitate culturally appropriate ways to improve the provision of dentistry and oral health for Indigenous peoples.

KEYWORDS
aboriginal, culture, dental, education, Indigenous, oral health

1 | INTRODUCTION

Despite numerous closing-the-gap initiatives, Indigenous peoples in Australia still experience significant general health and oral health outcomes.[1,2] Indigenous adults and children continue to suffer higher rates of tooth decay and gum disease compared to non-Indigenous adults and children. Indigenous peoples comprise 2.8% of the Australian population yet experience four times more dental disease compared to the general Australian population.[3-5] Historical experiences of loss of identity, trauma and racism are widely recognised as leading causes of the disproportional high rates of poor health outcomes in Indigenous populations globally.[6,7]

Doctor of Dental Medicine (DMD) students learn to diagnose, prevent and treat disorders and conditions of the oral cavity such as dental decay, gum diseases, oral cancer, cranio-facial abnormalities, pathologies of the jaw and impacted teeth. They undertake complex treatments such as root-canal therapy, biopsies, provide inlays, veneers, crowns, bridges, surgically remove teeth, place implants and dentures, and provide appliances to correct abnormal positioning of the teeth and jaws. Bachelor Oral Health (BOH) students focus on the prevention, treatment, maintenance and promotion of oral health. They work to address factors associated with dental decay and gum disease and provide treatments including oral hygiene instructions, restorations, extractions of primary teeth, some pulp treatments and periodontal treatment.[8]

Cultural competence of dental and oral health practitioners is essential to health care and life quality in addressing these health disparities.[9,10] Higher education authorities recognise the need for tertiary institutions to incorporate Indigenous culture more widely into universities to improve educational outcomes for Indigenous peoples and to increase cultural competence of academics and students.[11,12] Mandatory accreditation requirements provide incentives to increase Indigenous cultural competence within all dentistry and oral health programmes in Australia, however as scant evidence for integration of Indigenous culture into dentistry curricula is available, dental and oral health educational providers struggle to effectively incorporate Indigenous knowledge into curricula.[13,14]

A systematic review of the literature was conducted in 2016 to identify specific cultural competence curriculum interventions in dentistry and oral health education.[14] Likewise, an online survey involving academics and students within the DMD and BOH programmes at the University of Sydney School of Dentistry was conducted, to provide a baseline analysis of Indigenous cultural competence curricula practices.[15] This qualitative academic interview study aimed to define and explore current Indigenous cultural competency curricula, identify enablers and barriers to integrating Indigenous cultural competence in dentistry and oral health curricula, and ascertain innovative strategies to aid students in becoming culturally competent upon graduation, from dentistry academics perspectives, to inform future Indigenous cultural competence curriculum improvements.

2 | METHODS

We deliberated over several theoretical frameworks during this study that were crucial to the development of cultural competence in curricula. These included the social determinants of health, social justice and human rights, higher education principles and decolonising methodologies. The social determinants of health recognise various cultural, socio-economic and environmental factors influencing health status that are essential to disease prevention and health promotion.[6,16] Acknowledging distinctive rights that Indigenous Australians hold as the original peoples of this land will help improve the health and well-being of Indigenous Australians and in turn facilitate reconciliation between Indigenous and non-indigenous peoples.[17,18] Higher education principles and practices assist academics in acquiring sufficient knowledge and skills to deliver culturally safe teaching in clinical practice and health promotion.[19,20] Healthcare services and educational institutions have been developed within white traditions, supporting power, privilege and continuation of colonial ways.[21,22] Decolonising methodologies identify power imbalances that have existed since colonisation and respects Indigenous ways of knowing, being and doing, empowering Indigenous peoples to reach their full health potential.[23]

All School of Dentistry academics (n = 75) from the DMD and BOH programmes were invited to participate in in-depth interviews. Participant information statements and consent forms were distributed to interested academics to complete prior to their interview. All interviews were audio recorded and professionally transcribed prior to being uploaded into NVivo 11.[24] Thematic analysis was performed using deductive and inductive processes. Initially, CF performed deductive analysis of the first 5 interviews utilising pre-determined codes that were formulated from the systematic review[14] and survey[15] findings. Additionally, inductive analysis was performed by CF, consisting of familiarisation with the data, generating initial codes, searching for themes amongst codes, reviewing themes and defining and naming themes.[25,26] Interviews were conducted until no new concepts or themes emerged, achieving data saturation. CF and MI deliberated over codes and themes to accentuate significance, prior to consultation with the broader research team. Finally, CF refined coding structures until all the concepts presented by academics were captured.

This research was conducted by a team of Indigenous and non-indigenous dental, oral health and social science researchers, working within an established Indigenous research governance model to reflect Indigenous methodologies.[27] The research team established a Cultural Competence Curriculum Review Reference Group comprising of Indigenous and non-indigenous members. Verification of the key themes involved collaboration between the research team and reference group maximising the authenticity of the data.

3 | RESULTS

In total, 13 academics participated in semi-structured in-depth interviews. Of these academics, 4 taught in the DMD programme, 5 taught

in the BOH programme and 4 taught across both the DMD and BOH programmes. Following analysis of the data, six key themes emerged:

3.1 | Theme one: transfer of Indigenous cultural knowledge

Most staff recognised that the current DMD and BOH curriculum lacked Indigenous cultural content, especially how the past has affected the current health and well-being of Indigenous Australians. Several staff acknowledged that cultural competency is not achieved immediately; rather, it is obtained over a period of time as recorded by one staff member;

> "It's an ongoing process and it comes along with becoming more mature. It does take quite a bit of time working with these communities in addition to perhaps some type of primer or guest speakers in their didactic curriculum. I think it takes a good amount of time working with communities and really kind of immersing yourself in that community and getting to know people and talking to them one on one."

Some academics believed lecturers and students needed to develop an understanding of what learning is and to shift our way of understanding learning from acquiring information to learning as a response to something that is different, as indicated in this response by one academic;

> "It requires for the teachers and the curriculum designers to move away from thinking about learning as acquiring information to thinking about how we can help students have experiences that will help them to create an understanding for themselves. So that's a huge thing because it involves a cultural change, a big movement away from this sort of idea that by giving students information that, it means that they'll have learned something"

3.2 | Theme two: barriers to developing Indigenous cultural curriculum

Several participants shared their frustrations with students being so focused on becoming proficient in clinical procedures or achieving high marks rather than learning from their educational experiences as one staff member reported;

> "A big barrier I think is, how do we move our teachers, our curriculum and therefore our students, to understanding that health practice isn't just about the procedures?"

Some academics drew attention to difficulties in accessing Indigenous communities due to ethical considerations in avoiding over-researching of these communities, whilst some participants felt that a number of academics and students were racist and ignorant of Indigenous issues and would benefit from additional cultural training as recorded by one academic member;

> "If academics have some limited or restricted or stereotype views about Indigenous culture in general I think it would be very hard. We as academics, we create the barrier to implement or to teach the Indigenous culture in our curriculum and to our students because we don't realise, we truly don't realise or believe it's very important"

3.3 | Theme three: importance of cultural immersion

A majority of interviewees expressed that students should engage with Indigenous communities to provide firsthand experience of Indigenous knowledge or culture and expose students to complex Indigenous health issues as viewed by the following academic;

> "Indigenous cultural competence means that you have a certain level of engagement with what it means to be of that Indigenous or cultural identity to a level that you have some sort of understanding of the history, the political context and that would translate into how you engage with individuals but also have a sense of their society and their way of life and their ontology, their way of thinking about things"

The importance of cultural immersion was verified by another academic member;

> "I think people need to spend time listening to Aboriginal people and observing Aboriginal people and being in those situations where they're exposed to Aboriginal people and how meetings are conducted and how they welcome people into their communities and the differences in language and the differences in how they go about doing things and I guess exposure. When you're immersed in a culture you get some much more out of it"

A small number of participants viewed Indigenous academics and students within the faculty as favourable in increasing academic staff and student's knowledge and understanding of Indigenous culture as noted by one academic member;

> "I know we do have some Aboriginal students within our course but I wouldn't actually say that a lot of them are very open about where they come from and so often you don't get that sharing of information. I think sometimes they're kind of reluctant to come

> forward and talk about their heritage and be proud of it because there are people that have the stigma associated with it and everyone gets painted with the brush you know."

A few academics suggested providing an opportunity for students to participate in various Indigenous cultural exhibitions or museums to enhance their cultural knowledge and understanding.

3.4 | Theme four: resources required for Indigenous cultural education

Most academics considered funding and access to expert teaching staff to deliver Indigenous knowledge, culture and history, a high priority as evident in the following academic quote;

> "I wish I heard more of the Aboriginal story from their people and even from some of our students for them to get up and say where they are from"

A few participants acknowledged that there are multiple issues requiring advocacy as described by one academic;

> "In our society there's increasing advocacy across all diversities so thinking about all racial and ethnic groups, different religious group, you know gender, sexuality, the whole marriage equality sort of thing is big on the agenda now, transgender and in some way it's kind of, you know the Aboriginal and Torres Strait Islander sort of voice can get lost in that big sort of melting pot"

Advocacy for Indigenous peoples to share their stories and be proud to be Indigenous would empower Indigenous peoples as well as provide essential resources for staff and students as stated by the following academic;

> "There's quite a bit of focus on Aboriginal and Torres Strait Islander people that are victims of colonisation and the stolen generation and you know the real sort of social difficulties, but also there are voices within the Aboriginal and Torres Strait Islander community like Warren Mundine and Noel Pearson, who remind us, that yes there is victimhood but also there are really amazing people and amazing achievements"

Supplementary resources staff identified as necessary included, high-quality online modules to deliver part of the content, and incorporating mandatory assessments that include substantial weighting towards the final aggregate to gain traction. Additionally, access to expert curriculum designers was deemed important as recorded by the following staff member;

> "It takes an awful lot of thought from the curriculum designers and from the teachers so that it's just not tokenistic and then it's just not sort of stereotyping."

A few participants believed displaying Indigenous artwork and flags within School of Dentistry facilities, practising "Acknowledgement of Country" on a regular basis and valuing Indigenous staff members would create a positive atmosphere as recognised by one academic member;

> "I do think we need more Aboriginal staff, more of a presence. I think Australia could do a lot as a country. They don't even have a verse relating to Indigenous people in the anthem it's supposed to be a national anthem"

3.5 | Theme five: proposed Indigenous cultural content

The majority of academics felt that it was essential to deliver an accurate history of Indigenous Australians to both BOH and DMD students as reported by one academic;

> "I think in order for a student to become culturally competent they need to have an awareness of some of those things that shape the Aboriginal communities and they need to have an understanding of what happened when there was the invasion. I think there's a big part of helping our country heal, to understand what happened to the Aboriginal people at that time and how disrupting that was for them. I think that's a huge part of becoming culturally competent"

Most staff wanted to include various social aspects of health, epidemiology, patient psychology, prevention, and rural or Indigenous health as demonstrated in the following statement from one academic member;

> "We need to be able to provide students with rich learning experiences that actually help them to engage with the culture and all those historical, political, demographic and environmental things….."

Several academics felt the curriculum should include information on cultural norms, cultural diversity, multiculturalism, cultural complexities, racism, Western versus Indigenous values or relationships, and communication or behaviour change, as voiced in the following statement;

> "There are varying languages, dialects as well as beliefs. I think its very basis involves a knowledge

and appreciation of diversity in cultural values and health beliefs, giving people the experience working with different populations. That might be with rural - regional rotations as well some reflection from the students on what they have learned about different groups and how it made them feel and how they may incorporate those understandings into their future practice"

3.6 | Theme Six: strategies to incorporate Indigenous culture into curricula

All academics acknowledged that dental and oral health curriculum was "tight"; however, a majority of academics felt small, regular, high-quality Indigenous content throughout the curriculum would be achievable and more effective in increasing cultural competence as reported in the following statement;

> "Our curriculum is really compact and there's no difference between DMD & BOH. It's five days a week and with that our semesters start earlier and finish later than the other faculties, so we do have long periods of time of teaching and learning than other students, but I think it depends on how we manage and blend the Indigenous component of the curriculum"

A mixture of face-to-face and online curriculum content was considered a good balance. Several academics expressed that an allocated session for all cohorts each semester would be helpful, as cultural competence is a continuum requiring consolidating in understanding of Indigenous culture and history. "Population Health" and "Oral Health in Society" were recognised as the main curriculum areas to deliver content, and however, integration into other curriculum areas such as in Life Sciences, Cariology and Periodontology through Indigenous specific case studies would be even more effective. A few participants suggested a "Q & A" session with a panel of Indigenous community members, as this would be engaging and promote cultural respect and sensitivity. Integration of regular cultural content would have a positive impact upon clinical practice, avoiding the tick-a-box mentality to delivering cultural competence curriculum, as demonstrated in the following statement;

> "Last year Suzanne Pitama from the University of Otago Medical School talked about four types of curriculum for Indigenous learning, the first is not even recognizing culture; you know a culture you know. The second one was thinking about culture in terms of risk factors for disease and I guess that's getting better and the next level is recognizing the culture but looking at it in simplistic or fragmented sort of ways and then the next level was the one that she would aspire to is the complexities of culture"

Providing curriculum time for students to share their own culture and critically reflect on the various social aspects of health rather than just on procedures would assist in increasing academics and students' cultural competence.

4 | DISCUSSION

Traditional educational strategies concentrate on the delivery of knowledge and skills, with the purpose of education being that students learn something, from someone, for a particular reason. The difficulty with the traditional language of learning is that it tends to prevent people from asking key educational questions of content, purpose and relationship. Education is more than knowledge and skills.[28] We induct students into ways of being and doing, such as in cultural competence or professionalism. Bureaucratisation of social problems and health issues has existed historically within higher education institutions in Australia.[7] Durkheim challenged the generalisation of social issues, recognising institutional norms created by established beliefs and practices may cater for some groups yet have negative impact on others.[29] Weber highlights bureaucratisation, or the "iron cage of bureaucracy" as potentially one of the harshest organisational forms, transforming social action into rationally organised action, becoming superior to all other types of collective behaviour or social action.[30] Dental and oral health educationalists need to question the validity of current teaching content and practices and recognise institutional barriers that prevent adequate preparation of students to treat diverse groups of patients who historically have faced the greatest burden of disease. This paradigm shift places emphasis on the social and cultural determinants of health, identifying interventions that will promote oral health at an individual, educational, political and community level.[31,32]

Development of cultural competence amongst academics and students requires a shared responsibility and active participation. Neither can be just an interested spectator if we are to fulfil future obligations.[33] Cultural competence is one of the six graduate qualities of the University of Sydney, calling for students to work productively, collaboratively and openly in diverse groups and across cultural boundaries.[34] The University of Sydney's Wingara Mura Strategy supports Indigenous curriculum transformation. The National Centre for Cultural Competence has developed several interactive online resources to equip students and academics to increase their cultural competence knowledge and understanding.[35] Significant opportunities exist with government and non-government agencies to facilitate cultural immersion experiences for dentistry and oral health students in Australia. We have established a multifaceted collaboration with the Poche Centre for Indigenous Health, NSW Health and other partners, involving School of Dentistry academics and students in conducting regular tele-dentistry sessions, clinical field visits and health promotion projects to develop sustainable dentistry and oral health promotion services within Indigenous communities in NSW.[36,37] Developing strong working relationships with additional Indigenous communities will provide the capacity to

enhance cultural immersion experiences to improve Indigenous cultural competence of academics and students.

Several studies have reported that cultural competence curriculum content within dentistry should include opportunity for individuals to identify their own cultural biases and examine the effects of racism. Additionally, a sound knowledge of health inequalities, public health and the social determinants of health are required, establishing the importance of diversity and respect in the delivery of healthcare services.[38-40] As dental curriculum is already congested, careful consideration is required to determine the amount of time to spend on cultural competence as well as when to incorporate this in the curriculum. One study suggested that cultural competence be taught earlier in the curriculum to enable the application of cultural competency information throughout all clinical experiences and not just the final year of school.[41] Other studies have indicated that a full-day cultural competence seminar was too long. Multiple one- or two-hour sessions spread throughout the curriculum, were the preferred mode of delivery, ensuring that students had sufficient time to reflect on content.[42,43] A number of resources are available to assist with Indigenous curriculum development in higher education; for example, a "Health Curriculum Framework" has been developed to assist universities, health service providers and accreditation bodies with Indigenous cultural competence curricula.[44] The "LIME Network" has been dedicated to ensuring quality and effective teaching and learning of Indigenous culture in medical education, as well as best practice recruitment and retention of Indigenous medical students.[45] The "Getting it Right Teaching and Learning Framework" provides guidelines to equip higher education providers within Social Work to be informed by Indigenous knowledge in all of areas of practice.[46]

The "cultural competence continuum" formulated by Cross in 1989 and further developed by Goode in 2004 is helpful in determining the cultural climate of an institution, recognising six levels of cultural competence to describe how an individual or organisation responds to cultural differences.[47] Positive movement along the "cultural competence continuum" requires recognition of one's own prejudices which can lead to acknowledgement of the need to change followed by long-term behaviour change.[48] Both academics and students' alike need to be actively involved in this transformative experience. Reflective practice within dentistry and oral health educational settings encourages individual students to consider their own worldview and identify stereotypes and biases that may affect the delivery of dental clinical care.[49] Academics responsible for the development of cultural competence curricula gain personal insights through analysing student's reflections on their interactions with diverse patients and communities. This in turn assists academics in recognising "teachable moments" that occur in the clinical setting, providing opportunities to discuss student experiences to enhance the learning process.[50] Increasing the number of Indigenous academics and students within dental schools afford opportunities to enhance cultural competence of academics and students. As Indigenous academics and students participate in cultural exchange, significant transformation transpires dispelling previous held stereotypes, enriching academics and students.[51]

The recruitment process for academic participants is recognised as a limitation within this study. Academics who volunteered for this study may be more zealous about Indigenous issues; therefore, the sample may not be representative of all academics. A successive paper will explore student perspectives to provide a more comprehensive analysis of barriers and enablers to assist in developing future Indigenous curricula.

5 | CONCLUSION

Increasing Indigenous cultural competence of dental students requires an educational and philosophical shift that incorporates the social determinants of health into curricula, whilst maintaining the strengths of the biomedical foundations of dental care. It requires the inclusion of an informed history of Indigenous Australians with Indigenous peoples sharing their experiences, immersion within Indigenous communities to gain insight into diversity within Indigenous culture and reflection upon these experiences to identify inaccurate stereotypes and increase cultural competence of academics and students. Recruitment and retention of Indigenous academics and students are necessary to facilitate culturally appropriate ways to improve the provision of dentistry and oral health for Indigenous peoples.

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ORCID

Cathryn Forsyth http://orcid.org/0000-0002-6673-9639

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APPENDIX 1: SEMI-STRUCTURED INTERVIEW SCHEDULE FOR DENTISTRY ACADEMICS

1. What is your current role in the School of Dentistry? If you are involved in teaching, what do you teach?
2. What does Indigenous Cultural Competence mean to you?
3. What does it take for a student to become culturally competent?
4. Do you incorporate any Indigenous content in the course/s you currently teach? If so, how is the Indigenous content currently been taught?
5. Where about is the Indigenous content positioned in the curriculum?
6. Do you know of any other Indigenous content included in School of Dentistry curriculum?
7. Do you feel the students have adequate Indigenous content within their current curriculum to be deemed culturally competent in Indigenous culture?
8. Are there areas within your curriculum that could support additional Indigenous cultural content?
9. Can you suggest any particular curriculum areas that would be suitable in promoting Indigenous culture?
10. Are there any particular barriers you are aware of that would make it difficult to include more Indigenous cultural competence into dentistry/oral health curriculum?
11. Are you willing to develop & support additional Indigenous cultural competence within the current curriculum?
12. Is there anything you would like to add in support of strengthening Indigenous cultural competence in the current curriculum?