Employing Indigenous methodologies to transform dental and medical education

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Indigenous people in Australia experience considerably more dental and medical ill-health than non-Indigenous people. Cultural competence of dental and medical teams is crucial in the delivery of services to address these health disparities. Traditionally, cultural training has been incorporated later in health education curricula, resulting in students perceiving Indigenous health to be less important, relevant or useful in their future careers. Higher education institutions struggle to incorporate Indigenous culture into curricula to improve educational outcomes for Indigenous peoples and to increase cultural competence of staff and students. This study explores how a team of Indigenous and non-Indigenous researchers navigated the cultural interface to develop an Indigenous curricula model for dental and, potentially, medical programs in Australia. A team of Indigenous and non-Indigenous oral health, dental and social science researchers, together with a Cultural Competence Curriculum Review Reference Group comprising Indigenous and non-Indigenous members, successfully navigated the cultural interface. Collaborations between the reference group and research team at each phase of this research ensured authentication and validity of the data. This study highlights the importance of employing Indigenous methodologies when conducting Indigenous research to improve dental and medical health outcomes for Indigenous peoples.

Keywords: Indigenous methodologies, dental, medical, Indigenous health outcomes

Introduction

Historical foundations of dental and medical education and research have been developed in accordance with Western philosophy. Non-Indigenous researchers have considered Indigenous (refers to Aboriginal and Torres Strait Islander) knowledges as second-rate, describing themselves as the producers of knowledge (Moreton-Robinson, 2004). Dental and medical sciences within universities have focused on modern and industrialised concepts based on assumptions about the superiority of Western culture, with the majority of historical social science publications focusing on ancient societies or remote Indigenous communities (Connell, 2007). Cultural training has traditionally been incorporated in the final stages of health education curricula, resulting in students perceiving Indigenous health to be less important, relevant or useful in their future careers (Chun, 2010). Universities Australia delivered several reviews, prompting higher education initiatives to improve the delivery of Indigenous curricula in all Australian universities (Universities Australia, 2011a; 2011b).

The Indigenous concept of health is holistic, with self-determination being central to the provision of Indigenous health services. Health care for Indigenous peoples should acknowledge that experiences of trauma and loss have greatly contributed to the impairment of Indigenous culture, health and wellbeing, and consequently shape provision of future Indigenous health care. Recognition of existing colonial ways, power imbalances and dominant or oppressive policies within the health care system aid in understanding Indigenous perspectives (Martin, 2003). University curricula, teaching methodologies and research endeavours have a history of development that contributed to the dispossession of Indigenous peoples (Williamson & Dalal, 2007).

Educational institutions, health care services and government departments have been established within colonial traditions, overtly and covertly supporting power, privilege and continuation of colonial ways, which has resulted in racial violence toward Indigenous people. Indigenous peoples are often viewed as being problematic and costly, with media and history books providing Eurocentric viewpoints, consequently resulting in oppression and continuation of poor health outcomes. It is paramount Indigenous peoples are engaged at the commencement of any Indigenous research project and should govern their own research, as Indigenous people have a level of experience and knowledge of colonisation and dispossession that a non-Indigenous person could not obtain (Esgin et al., 2018; Moreton-Robinson et al., 2008).

Complex issues surround the concept of cultural competence and the acute need for health practitioners to develop knowledge, skills, understandings and attributes to be responsive in diverse cultural settings. Cultural competence is a lifelong journey, requiring active participation, holding esteem for culture, knowing how to learn about individual and organisational culture, interacting effectively in a variety of cultural environments and implementing changes to improve services based on cultural needs to achieve cultural proficiency (National Center for Cultural Competence, 2004). Although cultural competence seeks to cultivate social and emotional wellbeing and to encourage critical self-reflection to challenge individual cultural attitudes, beliefs, and behaviours, Indigenous sovereignty is not the main focus in attaining cultural competence within Australian higher education. It is vital that higher education institutions gain a clear understanding of Indigenous sovereignty and national identity, informing individual and institutional cultural values to make respectful and insightful choices on the journey toward achieving cultural competence (Johnston, 2020). The human rights of Indigenous people must be recognised and enforced, with racism, adversity, stigma and social disadvantage being addressed in strategies aimed at improving Indigenous health. The centrality and strength of connection to country for Indigenous family and kinship must be understood, along with diversity of Indigenous people groups being recognised. We need to move beyond the traditional biomedical model of health care and embrace an Indigenous holistic model of care encompassing a more culturally responsive, client-centred, holistic model of care (Dudgeon et al., 2014).

In addition to contemplating multiple views on health concepts, academics ought to consider the best way to deliver dental and medical curricula. Western higher education theories and practices focus on why and how it is possible to deliver safe clinical practice or modify lifestyle habits to reduce disease in individuals and communities. Brookfield (1995), a Western scholar in adult education, proposes four lenses that can be engaged by teachers in a process of critical reflection. Adapting these lenses to dental or medical higher education, academics need to identify their own cultural nuances, the autobiographical, and share these with peers, gaining an understanding of colleagues' experiences, to develop a collaborative approach to health solutions in a safe way. Furthermore, academics ought to view content through the eyes of their students, encouraging students to reflect on their own world view and share how this impacts on delivery of dental or medical education, treatment and prevention

philosophies in preparation for their own practice. Finally, academics must incorporate a lifelong learning philosophy with their students to develop essential research skills to obtain relevant, evidence-based theoretical literature to guide lifelong learning and future practice (Brookfield, 1995). Deep approaches to learning, incorporating critical reflection, and active participation in the educational process, providing cultural immersion opportunities, result in better learning outcomes and increased cultural competence for students, especially regarding attitude, satisfaction and persistence (Ramsden, 2003).

The social determinants of health focus on culture, social connectedness, socio-economic position and environmental factors, recognising the relationship between the social determinants of health and health status (Wilkinson & Marmot, 2003). The unequal distribution of health experienced by Indigenous people is the result of a combination of poor social policies and economic arrangements (Watt, 2007). Unfortunately, many Indigenous peoples have not experienced basic human rights and continue to experience racism, which is recognised as a social determinant of health (Paradies et al., 2015). Limited attention has been paid to the ongoing experience of racial discrimination, poor housing and intergenerational trauma experienced by many Indigenous families. Viewing health through the lens of the social determinants of health assists in preventing disease and promoting health and wellbeing, with particular emphasis on sharing the responsibility for health, especially with vulnerable population groups, to make health more affordable and health care service delivery culturally safe. Change the social determinants of health and there will be dramatic improvements in health equity (World Health Organization, 2008).

In contrast to the social determinants of heath, a non-medical focus on health, Western scientific knowledge systems have historically dominated values, principles and ethics, guiding government policies and practices within health (Dudgeon et al., 2020). Several Indigenous academics suggest a shift in focus is required to improve the health of Indigenous peoples. This involves a shift from the Western, dominant health care approach to the decolonisation of health where Indigenous people can voice and action health care initiatives which reflect their holistic and diverse contexts (Moreton-Robinson, 2004; Nakata et al., 2012; Tuhiwai-Smith, 1999). Indigenous people's wellbeing is intensely connected to country. For Indigenous people, land is not only their mother, it is the foundation of their identity and spirituality; it is the context for human order and inquiry. Identity as human beings remains tied to their land, cultural practices, intellectual traditions, systems of authority, social control, and resource ownership and exchange (Ganesharajah, 2009).

Indigenous people's connection to country is an important issue that is not recognised in Indigenous health policy or practice. Power differentials continue to exist within the dominant health system that silence Indigenous voices and inhibit social justice being achieved. Critical issues that trigger the lack of improvement in Indigenous health are the continuation of colonisation and dominance of Western worldviews in health policy, planning and practice. Lack of recognition of Indigenous health models and dominance of the biomedical health model, in addition to individual and institutional racism, perpetuates poor health outcomes for Indigenous peoples (Sherwood & Edwards, 2006). Research is an important agent for change and can make a significant difference to Indigenous health outcomes if and when Indigenous people's knowledge and opinions inform the process. Decolonisation practices require all individuals to explore their own beliefs or assumptions and open the door to other ways of knowing, being and doing. Health sectors need to evaluate what is not working and be willing to accept change. This change needs to be informed by Indigenous people and Indigenous health agencies who are experts in Indigenous ways (Martin, 2003). Health agencies need to provide adequate and sustainable funding for comprehensive primary health care delivered by culturally safe health care providers. Non-

Indigenous Australian health practitioners need to be receptive to and culturally respectful toward Indigenous peoples, without expecting Indigenous peoples to constantly justify their need for basic human rights. It is only when Indigenous and non-Indigenous people participate in this process that we can work together for the good of all to achieve a healthy nation (Sherwood & Edwards, 2006).

Decolonisation requires all people to examine the impact colonisation has had upon the past and, in doing so, create a future that does not repeat the past. This can be attained by presenting an accurate and balanced history to aid in understanding the political and social context Indigenous peoples have experienced which has resulted in disadvantage, marginalisation and ill health (Sherwood, 2009). Health services must acknowledge that interpersonal and institutional racism exists within health care systems which impacts significantly on Indigenous people's health outcomes. An Indigenous health workforce is critical to improving the current health gap and increasing cultural sensitivity within health care services. In the same way health professionals are required to take a comprehensive medical history to determine the health needs of their clients, all health professionals should undertake an accurate colonial, political, social and economic history of Indigenous peoples worldwide to demonstrate the powerful relationship between social, political, and economic circumstances and health status (Sherwood, 2013).

Previous efforts to increase Indigenous cultural competence within health care in Australia have primarily been designed for specific situations, lacking a coherent approach to inclusion in curricula; therefore, the teaching of Indigenous cultural competence remains fragmented and inadequate (Downing et al., 2011). This study aims to explore how Indigenous and non-Indigenous dental and medical academics worked together to reform Indigenous curricula in a Western university within a traditionally biomedically focused faculty.

Method

Indigenous decolonisation methodologies and the principles of social justice, human rights, health equality and reconciliation were central to this research (Australian Human Rights Commission, n.d.; Reconciliation Australia, n.d.; Tuhiwai-Smith, 1999). As our team included Indigenous and non-Indigenous members, it was important that the Indigenous researchers in our team reframed and decolonised the research paradigm in bringing a worldview of long-standing socio-economic inequalities through an Indigenous cultural lens. It was imperative for the non-Indigenous researchers in our team to understand their impact and position in this research to explore their own beliefs, assumptions and stereotypes. In doing so, this opens the door to reconciliation, strengthening relationships between Indigenous and non-Indigenous peoples for the benefit of all Australians.

The chief investigator of this research is an Aboriginal (Yuin) social scientist specialising in Aboriginal disability and ageing research, and is a current Aboriginal Research Council Fellow. Our first author is a non-Aboriginal researcher who completed her Doctor of Philosophy in Indigenous cultural competence in dentistry education, supports Aboriginal and Torres Strait Islander dental and oral health students, worked with Aboriginal communities to strengthen student placement experiences for many years and developed a National Aboriginal and Torres Strait Islander Cultural Safety Curriculum for dental schools in Australia (Satur et al.,2021). The second author is an Aboriginal man (Wakka Wakka and Wuli Wuli), senior academic and researcher who positions their Indigenous epistemologies and pedagogies through their critical Indigenous standpoint in the application of public health research, medical education and health system design. Our third author is a non-Aboriginal health sociologist and professor, with extensive international research experience supporting Aboriginal governance, health care systems and

education in Australia. The fourth author is a non-Aboriginal health translational researcher who completed a Research Fellowship with the Poche Centre for Indigenous Health to improve oral health for Aboriginal communities in north-western New South Wales. Our fifth author is a non-Aboriginal researcher and has contributed for over a quarter of a century to addressing issues of Indigenous health and welfare. He is now recognised as a global leader driving reform in addressing health inequality, particularly among Aboriginal and Torres Strait Islander people in Australia. He was responsible for the original developments in integration of Indigenous affairs in dental education and is, by many, recognised as the father of modern research and innovation in the field.

A conceptual framework appropriate for Indigenous people was designed with a reference group led by Indigenous elders, Indigenous scholars and non-Indigenous scholars for this study. This framework employed Indigenous ways of knowing, ways of being and ways of doing (Martin, 2003). Current frameworks in dental and medical sciences were not appropriate for this study, as they fail to acknowledge diversity within Indigenous lands and cultures and maintain dominant colonial ways. Employing Indigenous decolonisation methodologies provides a better understanding of particular motivations and behaviours within Indigenous communities, unearthing aspects which have not previously been explored. Each Indigenous community must be understood in the context of their experience of colonisation, disadvantage and cultural heritage (Gilroy et al., 2013).

Reflecting Indigenous methodologies, an Indigenous research governance model was employed, with this research team establishing a Cultural Competence Curriculum Review Reference Group in mid-2015, comprising of Indigenous and non-Indigenous scholars and leaders. Collaborations between the reference group and our Indigenous and non-Indigenous dental, oral health and social scientific research team were ongoing. During development of the ethics application, our reference group was involved in ensuring all research conducted was in keeping with the National Health and Medical Research Council Guidelines (Aboriginal Health and Medical Research Council of New South Wales, 2013; National Health and Medical Research Council, 2003). At each phase of data collection and analysis, the reference group and research team met to discuss research findings, supporting verification of all data and maximising authenticity of all data. Indigenous methodologies informed this entire research process.

We adopted three fundamental principles when conducting this research. First, this research was counter-hegemonic to Western ideologies, moving away from the traditional political, social and economic structures previously established within universities, strengthening and supporting the fight to alleviate social conditions that result in poor quality of life for Indigenous people. Second, this research privileged the Indigenous voice to depict various experiences of Indigenous people and ensure non-Indigenous populations are aware of the concerns and ambitions of Indigenous spokespeople. Our research and reference team included an Indigenous sociologist, Indigenous health care worker, Indigenous dental clinician and Indigenous managing director, all from significantly different walks of life. Third, this research was conducted by Indigenous and non-Indigenous researchers (Foley, 2006; Rigney, 1999). The third point reinforces the notion that Indigenous people have a level of knowledge and experience that non-Indigenous researchers could not possibly acquire, hence, Indigenous people need to be explicitly involved in any Indigenous research. Gilroy, an Indigenous sociologist, developed criteria for use in working with Indigenous peoples with disabilities. This criterion assists researchers and policy advisors developing research for Indigenous peoples with disabilities (Gilroy et al., 2013).

This research team conducted four studies. First, a systematic search of the literature was undertaken to identify studies on cultural competence curriculum interventions in dentistry and oral health higher education. Qualitative analysis was undertaken to explore in detail participants' personal and

educational experiences with cultural competence curricula (Forsyth et al., 2016). Second, a survey involving all staff and students of the School of Dentistry's Doctor of Dental Medicine (DMD) and Bachelor of Oral Health (BOH) programs at the University of Sydney was conducted to gather a snapshot of current Indigenous curricula practices in the respective courses (Forsyth et al., 2017). Third, all School of Dentistry academics and students from the DMD and BOH programs were invited to participate in in-depth interviews to determine barriers and enablers to integrating Indigenous culture into dentistry and oral health curricula. Thematic analysis was performed using deductive and inductive processes. Our reference group collaborated at each phase of this research to discuss formulation of codes and themes and make sense of the data (Forsyth et al., 2018; 2019). Fourth, an Indigenous cultural curriculum model was developed to assist in the integration of Indigenous curricula for all dental and oral health schools in Australia (Forsyth et al., 2020).

Although these studies focused on dental education, it became apparent that the findings from these studies were applicable to Indigenous cultural curricula in dental and medical education in order to facilitate an improvement in the delivery of dental and medical care and have a positive impact on the general health of Indigenous peoples living in Australia (Forsyth et al., 2020).

Results

The conceptual framework for this collective research crossed several philosophical contexts, incorporating a biomedical model of health, higher education theories and practices, the social determinants of health and Indigenous methodologies. As this research explored Indigenous cultural competence within dental and medical education, it was vital that this research was conducted in collaboration with Indigenous academics and community members, as well as with dental, medical and social science academics.

A diagrammatical representation of the four conceptual frameworks utilised within these studies is displayed in Figure 1.

1. Dentistry and medicine is based on a biomedical model concentrating on the individual physical and biological components of the mouth and body, hence why this element forms the base of Figure 1. With increasing advances in technology, the biomedical model of care is helpful in treating many dental and medical conditions effectively and improving life quality for patients.

2. Higher education theories and practices assist in understanding how students learn, and contributes to developing effective teaching practices and designing valid assessments. This second element in Figure 1 is essential, with these studies being situated in a university setting. Dental and medical students require sufficient knowledge, skills and understanding to enable them to actively participate in disease prevention, health promotion and delivery of clinical care.

3. The social determinants of health, the third element of Figure 1, attempts to address the broader influences on health, recognising that development of dental and medical policy involves intersectoral collaboration, promoting actions to reduce social inequalities, enabling access to health care, and empowering individuals and communities to make positive changes to their overall health.

4. The fourth and final element of Figure 1 envelopes our research, enabling the research team to view the data through an Indigenous lens. Indigenous methodologies identify power imbalances that have existed since colonisation and examine dominant and oppressive policy. Indigenous methodologies

deconstruct myths or particular practices and respect Indigenous ways of knowing, being and doing, providing balanced views about Indigenous people's circumstances.

Figure 1: Conceptual framework for Indigenous cultural competence in dental and medical education
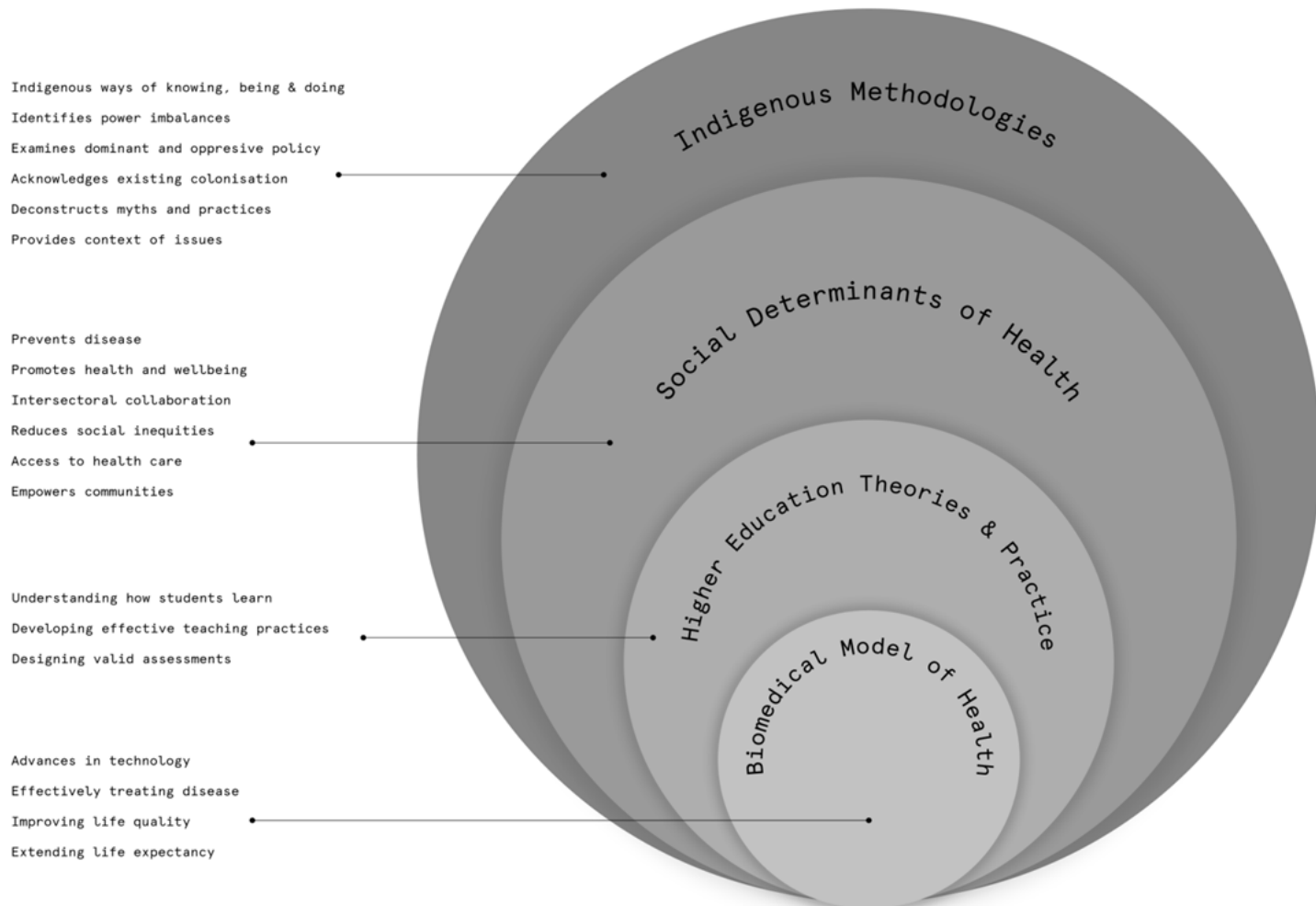
Our research team integrated Gilroy's criteria (Gilroy et al., 2013) throughout this research, emphasising the importance of (1) including Indigenous community within the research team to ensure equal distribution of power and responsibility, (2) recognising colonisation as a social determinant of health, (3) being well-informed of colonial influences and the historical dispossession of Indigenous land, traditions and culture, (4) acknowledging similarities and differences between Indigenous communities and understanding struggles faced by Indigenous communities to attain rights to be self-sustaining, and (5) Indigenous and non-Indigenous research team members meeting in this cultural interface, gaining a profound understanding of the issues at hand from each other.

The chief investigator of this research, an Indigenous academic, ensured Indigenous and non-Indigenous team members conducted themselves ethically and respectfully toward each other and that the Indigenous voice was clearly articulated. As a result, non-Indigenous research team members began to view the research data through the eyes of Indigenous research team members uncovering "us and them" language and realising the extent white privilege has impacted the way each viewed the world. These revelations highlighted the need to incorporate specific content of historical events which have impacted Indigenous health and access to services, the implications of building trust and relationships with individuals and communities in health practice, the importance of examining one's own positioning in

terms of white privilege and other social privileges, and the limitations of one's own worldview for delivering culturally safe health care service to Indigenous peoples.

Together these criteria have empowered our Indigenous research and reference group members, improving relationships between Indigenous and non-Indigenous researchers, which in turn informed our research outcomes to improve quality of life for Indigenous peoples.

Discussion

Emergence of Indigenous research methodologies

Only recently, in the late 1990s, was intellectual sovereignty of Indigenous research discussed within the social sciences (Nakata, 1998; Rigney, 1999). Indigenous research methods and methodologies centre the Indigenous voice and facilitate distinct ways of knowing and being, offering a viable basis from which to contemplate the historically, geographically and spiritually embedded nature of Indigenous self-determination, which is central to the study of Indigenous knowledge (Latulippe, 2015). Indigenous social and emotional wellbeing comprises seven inter-related domains: kinship or family, country, community, culture, body, mind or emotions, and spirituality. This emerging, multifaceted Indigenous health discourse is a holistic, strength-based discourse and framework becoming increasingly prominent within Australian mental health policy and practice (Dudgeon et al., 2017). The social and emotional wellbeing model includes risk factors associated with assimilation, forced removal from family and country, marginalisation, discrimination and racism. This model also includes protective factors, such as active engagement in cultural practices related to country and self-determination for individual and collective identity, which is a source of strength and resilience for Indigenous communities (Australian Health Ministers' Advisory Council, 2017; Salmon, 2018).

Indigenous research is a form of sovereignty of cultural practices and part of a much broader political, economic, cultural and spiritual project of Indigenous resurgence (Dudgeon et al., 2020). Ethical guidelines for Indigenous research in Australia were established in 2003 and have undergone regular reviews. Following extensive consultation and revision in 2017, the following six core values have been included: (1) spirit and integrity, (2) cultural continuity, (3) equity, (4) reciprocity, (5) respect, and (6) responsibility. These six core values aim to ensure all research undertaken with Indigenous people and communities respects the shared values of Indigenous peoples; is relevant for Indigenous priorities, needs and aspirations; develops long-term ethical relationships among researchers, institutions and sponsors; and develops best practice ethical standards of research (National Health and Medical Research Council, 2018).

Several Indigenous organisations have suggested that excluding non-Indigenous people from working in the Indigenous space is counter-productive in achieving authentic reconciliation between Indigenous and non-Indigenous people. Despite some differences, the general objective with Indigenous research is to utilise Indigenous reality and interpretations within the research process to break down the dominant position of Western sciences and enable emancipation for Indigenous people (Foley, 2006). Indigenous standpoint theory declares that there are other epistemologies through which Indigenous people come to know the world and from which Indigenous people understand and analyse Western knowledge, which is a recent movement over the last few centuries. In Australia, this assessment promotes Indigenous political resistance and principles of self-determination, as well as relations of solidarity with other Indigenous peoples internationally (Nakata et al., 2012).

Indigenous standpoint theory is an ontological and epistemological approach to learning within research that enables the Indigenous person to maintain, regain or learn their own epistemological standpoint that has been lost due to colonisation and the adoption of Western approaches to knowledge. The conceptual framework presented in this study introduces a model that incorporates cultural knowledges within Western curricula and pedagogy. Indigenous standpoint theory is an element to Indigenous pedagogy, focusing on the Indigenous researcher's personal experiences drawing attention to aspects of the research enquiry that might not have been uncovered. This approach establishes a position within ancestral culture and knowledge to ensure the research process is culturally responsive and serves the interest of Indigenous people. Knowledge to Indigenous people is continuous, evolving and adapting to change. Numerous Indigenous scholars have challenged the mind-set of non-Indigenous and Indigenous people to define Indigenous people as both producers and participants in the production of knowledge. As Indigenous and non-Indigenous researchers have opened dialogue and exchanged skills and knowledge, research concepts and epistemologies have developed to be more culturally appropriate for Indigenous peoples at a local level. Indigenous standpoint theory is not an Indigenous way of doing research; it is a philosophical position situated in the Indigenous person's ancestry, which informs the methodology of science that has been around for tens of thousands of years (Tuhiwai-Smith, 1999).

Indigenous people are entwined within this much-contested knowledge space referred to as the "cultural interface". This cultural interface is the sphere where two different histories, cultures, philosophies and practices intersect, creating environments that influence the way Indigenous peoples make sense of and participate in society. As Indigenous and non-Indigenous people socialise within this interface, a greater level of understanding of Indigenous issues results. The theory of the cultural interface illuminates difficulties in sharing and interpreting knowledge between Indigenous and non-Indigenous people. This is often due to a focus on difference, rather than facilitating an understanding of the meaning of knowledges from both sides. Navigating the cultural interface requires breaking away from "us" and "them" and critiquing how interactions at the cultural interface reinforce non-Indigenous culture as dominant in the Australian political system and, hence, in the health care system. Indigenous people distrust institutions managed by non-Indigenous people due to past experiences of forced removal of children and Indigenous assimilation policies (Nakata, 2004).

Non-Indigenous people argue that Indigenous people should forget the past and reconcile differences. Indigenous leaders argue that the aim of reconciliation must not be to forget the past, but to acknowledge that being placed in institutions and utilised as domestics and farm hands, while being deprived of their culture and family support, are part of Indigenous people's life experiences. Many non-Indigenous people hold an inaccurate stereotype that Indigenous people are dysfunctional and dangerous (Gilroy & Donelly, 2016). Indigenous people are fed up with these inaccurate perceptions and want to maintain sovereignty over their knowledge and health care system, as sovereignty was never ceded. As Indigenous and non-Indigenous people interact in positive relationships and share these success stories with mainstream society, we can dispel myths, break down barriers and practice the spirit of reconciliation. The cultural interface is a place where Indigenous and non-Indigenous people constantly move within, interacting, debating and negotiating the past, present and future of Indigenous peoples (Gilroy, 2009). Consequently, in researching Indigenous cultural competence in dentistry education over past years, our team has sought to identify how individual experiences at the cultural interface function, what impact this tension has in the context of dentistry and oral health, and why Indigenous people resist approaching non-Indigenous dental and oral health care facilities. Exploring the cultural interface provides insight into some of the historical and cultural tensions in the provision of dental and oral health services, providing essential information to enable culturally appropriate delivery of dental, medical and health services.

Implications for health and medical education

The concept of cultural competence in health care emerged in the United States in the 1980s with a focus on improving the accessibility and effectiveness of health care delivery for people from racial or ethnic minority groups. Cultural competency is defined as those "congruent behaviors, attitudes and policies that come together in a system, agency or among professionals and enable that system, agency or those professionals to work effectively in cross cultural situations" (Cross et al., 1989, p. 13). The goal of cultural competence is to create health care systems and workforces that are proficient at delivering high quality care for all patients regardless of race, ethnicity, culture, gender or language. Cultural competence is required at all levels, from organisational to individual, as clinicians will increasingly see patients from different cultural backgrounds. Cultural competence is emerging as an important approach in addressing health care disparities and will, accordingly, need to be addressed in organisational, systemic and clinical spaces (Betancourt et al., 2003).

Australia is a multicultural society with many ethnic minority groups requiring provision of culturally appropriate dental and oral health care. This study focuses on cultural competence applying to Indigenous people in Australia, as multicultural dental and oral health care is being addressed in other forums (Marino et al., 2012). Racism is a major factor contributing to poor health of Indigenous Australians, with interpersonal and institutional racist attitudes and behaviours being embedded in social, structural and political contexts contributing to the dental and oral health gap experienced by Indigenous people in Australia (Larson et al., 2007).

Downing et al. (2011) highlight six main models through which cultural training is conceptualised. Each model is characterised according to its emphasis on individual versus systemic behavioural change and the extent to which they include reflection on one's own culture as a basis for understanding other cultures. Cultural awareness aims to increase awareness of cultural, social and historical factors relevant to Indigenous peoples, groups, and communities and to promote self-reflection on one's own culture and tendency to stereotype. This has been the main model used in Australia focusing on Indigenous culture with little consideration of the broader health service or system. Cultural competence focuses on a set of associated behaviours, attitudes and policies that can prevent the negative effects that may arise from disregarding culture in the provision of health care services. Every level of policy making, administration and service delivery must be involved in implementing and sustaining cultural competence, including all key stakeholders and communities with which the institution is involved. Cultural competence is a developmental process that evolves over an extended period of time. Individuals and institutions initially have varied levels of awareness, knowledge and skills. Successful integration of cultural competence within institutions results in positive progression along the cultural competence continuum (Goode et al., 2009). Critics of cultural competency argue the exclusion of reflexivity; however, contemporary culturally competent institutions value diversity, conduct self-assessment, manage the dynamics of difference, acquire cultural knowledge, and adapt to diversity and the cultural contexts of the communities they serve. Cultural safety addresses the ways in which colonial processes and structures shape and negatively impact health, with specific focus on the experiences of individuals seeking health care. This requires health care professionals and organisations to address their own biases and stereotypes that may affect the quality of care provided. Accordingly, cultural safety encompasses a critical consciousness whereby health care professionals and organisations engage in ongoing self-reflection, holding them accountable for providing culturally safe care, as defined by the patient and their communities, and as measured through progress towards achieving health equity. Cultural safety is the preferred model for health care currently in Australia. Cultural security refers to the impact of culture on access to health services and aims to help the health system and its workers to incorporate culture in their

delivery of services. With a greater focus on systemic change, cultural security seeks to create interactions between health workers and health service users that do not compromise the legitimate rights, values and expectations of Indigenous people; however, there is currently minimal guidance on how the cultural security model can be achieved. Cultural respect seeks to develop health services that are more accessible and to uphold the rights of Indigenous peoples to maintain, protect and develop their culture and achieve equitable health outcomes; however, cultural respect literature lacks direction on how cultural training will achieve this goal. Transcultural care highlights formal areas of study and practice in the cultural beliefs, values and lifestyles of diverse cultures, with focus on power relationships, racism and the conceptualisation of identities. Emphasis on the individual is helpful, yet strategies for improvements in the wider health care system are missing (Downing et al., 2011). Reducing health disparities and confronting the effects of racism require a multi-tiered commitment to action and the political will to eliminate race-based inequities in the health care system (Brondolo et al., 2009; Durey, 2012).

Effective cultural training requires a commitment to achieving culturally appropriate service delivery and a culturally appropriate workplace environments through incorporation of cultural knowledge into policy, infrastructure and practice. Cultural competence embraces the principles of equal access and non-discriminatory practices in service delivery and is achieved by identifying and understanding the needs and specific behaviours of individuals and communities. An advisory team should be established to steer the development, implementation and evaluation of cultural competence training within an organisation, with membership including Indigenous staff and Indigenous community representatives (Farrelly & Carlson, 2011; Farrelly & Lumby, 2009).

Culturally competent institutions design and implement services that are tailored to the unique needs of the individuals and communities they serve. Culturally competent institutions have a service delivery model that recognises mental health and wellbeing as an integral and inseparable aspect of primary health care. A culturally competent service that understands the impact of history and contemporary cultural practice and protocols will deliver better client outcomes. Cultural competence extends the concept of self-determination to the community and involves working in culturally diverse communities to determine their needs, working in partnership in decision-making and ensuring communities benefit economically from collaborations that are established. Engagement with communities should result in the reciprocal transfer of knowledge and skills among all collaborators and partners (Farrelly & Carlson, 2011; Farrelly & Lumby, 2009).

Stakeholders in health care, government and academia view cultural competence as an important strategy in addressing health care disparities. In higher education, cultural competence is an educational strategy to prepare the future health workforce to care for diverse patient populations, with a particular focus on the development of a skill set for more effective patient–provider communication. Health care workers need to understand the relationship between cultural beliefs and behaviour and develop skills to improve quality of care to diverse populations. Concern has been expressed about teaching strategies that promote stereotypes of particular cultures, highlighting issues that may be relatively neglected, such as empathy, socio-economic factors and prejudice or discrimination in the clinical encounter. Emerging regulatory and accreditation pressures, societal pressures, funding opportunities, and the increasing diversity of patients, students and faculty are key drivers of a focus on cultural competence. There is pressing need for a unified cultural competence conceptual teaching framework, as there is currently great variability in the availability and quality of training programs and specific training for faculty members (Betancourt et al., 2005).

Significant progress has been achieved in recent years, with the national Aboriginal and Torres Strait Islander Health Curriculum Framework being an excellent contemporary resource to support Indigenous curricula reform (Australian Government, 2016). Additionally, an Indigenous cultural curriculum model (Forsyth et al., 2020) has informed Australian dental schools of the need to develop specific Indigenous curricula for all dental schools in Australia. Unfortunately, due to existing tight curricula, dental and medical programs would struggle to integrate the Health Curriculum Framework in its entirety. Fortunately, pressures from regulatory and accreditation bodies have produced grant funding to develop tailored curricula for dental and medical schools in Australia.

Cultural competence strategies aim to make health services more accessible for patients from diverse cultural backgrounds. Recent strategies have focused on specific groups, particularly Indigenous Australians, where services have failed to address large disparities in health outcomes. Currently their development has been hampered by a lack of clarity around how the concept of culture is used in health and the scarcity of outcomes-based research that provides evidence of the efficacy of cultural competence strategies. A limited conceptualisation of culture often conflates culture with race and ethnicity, thereby failing to capture diversity within groups, reducing the effectiveness of cultural competence strategies and impeding the search for evidence linking cultural competence to a reduction in health disparities. Attention to cultural complexity, structural determinants of inequality and power differentials within health care settings not only provides a more comprehensive notion of cultural competence and a refined understanding of the role of culture in the clinic, but may also help to determine the contribution that cultural competence strategies can make to a reduction in health disparities (Thackrah & Thompson, 2013).

Conclusion

Indigenous research conducted by Indigenous and non-Indigenous researchers is effective in building positive relationships to navigate the cultural interface. This research team established a Cultural Competence Curriculum Review Reference Group comprising Indigenous and non-Indigenous members. Collaborations between the reference group and research team at each phase of this research resulted in authentication and validity of the data to develop several studies to inform integration of Indigenous culture into dentistry and, potentially, medical curricula. Historically, dental and medical programs focused on the biomedical; however, contemporary integration of higher education theories and practices, and acknowledgements of the social determinants of health, has resulted in a dynamic shift in dental and medical education. As Indigenous curricula are integrated into all dental and medical schools in Australia, an overarching lens is required to view dental and medical curricula through Indigenous ways of knowing, being and doing. As Indigenous and non-Indigenous researchers functioned together to achieve significant research outcomes, a greater respect for one another was achieved, facilitating reconciliation between Indigenous and non-Indigenous team members.

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References

Aboriginal Health and Medical Research Council of New South Wales. (2013). *AH&MRC guidelines for research into Aboriginal health: Key principles*. https://www.ahmrc.org.au/wp-content/uploads/2019/07/AHMRCGuidelinesforResearchKeyPrinciples.pdf

Australian Government. (2016). *Aboriginal and Torres Strait Islander health curriculum framework*. Department of Health. https://www1.health.gov.au/internet/main/publishing.nsf/Content/aboriginal-torres-strait-islander-health-curriculum-framework

Australian Health Ministers' Advisory Council. (2017). *National strategic framework for Aboriginal and Torres Strait Islander peoples' mental health and social and emotional wellbeing 2017–2023*. Department of the Prime Minister and Cabinet. https://www.niaa.gov.au/sites/default/files/publications/mhsewb-framework_0.pdf

Australian Human Rights Commission. (n.d.). *Aboriginal and Torres Strait Islander social justice*. https://www.humanrights.gov.au/our-work/aboriginal-and-torres-strait-islander-social-justice

Betancourt, J. R., Green A. R., Carrillo J. E., & Ananeh-Firempong II, O. (2003). Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Reports*, *118*(4), 293–302.

Betancourt, J. R., Green A. R., Carrillo J. E., & Park E. R. (2005). Cultural competence and health care disparities: Key perspectives and trends. *Health Affairs*, *24*(2), 499–505.

Brondolo, E., Gallo, L., & Myers, H. (2009). Race, racism and health: Disparities, mechanisms and interventions. *Journal of Behavioral Medicine*, *32*(1), 1–8.

Brookfield, S. (1995). *Becoming a critically reflective teacher*. Jossey-Bass Inc.

Chun, M. (2010). Pitfalls to avoid when introducing a cultural competence training initiative. *Medical Education*, *44*, 613–620.

Connell, R. (2007). Southern theory: The global dynamics of knowledge in the social sciences. Allen & Unwin.

Cross, T., Bazron, B., Dennis, K., & Isaacs, M. (1989). *Towards a culturally competent system of care: A monograph on effective services for minority children who are severely emotionally disturbed*. Georgetown University Child Development Center. https://spu.edu/-/media/academics/school-of-education/Cultural-Diversity/Towards-a-Culturally-Competent-System-of-Care-Abridged.ashx

Downing, R., Kowal, E., & Paradies, Y. (2011). Indigenous cultural training for health workers in Australia. *International Journal for Quality in Health Care*, *23*(3), 247–57.

Dudgeon, P., Bray, A., Darlaston-Jones, D., & Walker, R. (2020). *Aboriginal participatory action research: An Indigenous research methodology strengthening decolonisation and social and emotional wellbeing* [Discussion paper]. The Lowitja Institute. https://www.lowitja.org.au/page/services/resources/Cultural-and-social-determinants/mental-health/aboriginal-participatory-action-research-an-indigenous-research-methodology-strengthening-decolonisation-and-social-and-emotional-wellbeing

Dudgeon, P., Bray A., D'Costa, B., & Walker, R. (2017). Decolonising psychology: Validating social and emotional wellbeing. *Australian Psychologist*, *52*(4), 316–325.

Dudgeon, P., Milroy, H., & Walker, R. (2014). *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice* (2nd ed.). Commonwealth of Australia. https://www.telethonkids.org.au/globalassets/media/documents/aboriginal-health/working-together-second-edition/working-together-aboriginal-and-wellbeing-2014.pdf

Durey, A. (2010). Reducing racism in Aboriginal health care in Australia: Where does cultural education fit? *Australia and New Zealand Journal of Public Health*, 34(S1), S87–92. https://doi:10.1111/j.1753-6405.2010.00560.x

Esgin, T., Hersh, D., Rowley, K., Gilroy, J., & Newton, R. (2018). Indigenous research methodologies: Decolonizing the Australian sports sciences. *Health Promotion International*, 34(6), 1231–1240.

Farrelly, T., & Carlson, B. (2011). *Towards cultural competence in the justice sector* [Current initiatives paper 3]. Indigenous Justice Clearinghouse.

Farrelly, T., & Lumby, B. (2009). A best practice approach to cultural competence training. *Aboriginal and Islander Health Worker Journal*, 33(5), 14–22.

Foley, D. (2006). Indigenous standpoint theory: An acceptable academic research process for Indigenous academics. *International Journal of the Humanities, 3*(4), 25–36.

Forsyth, C. J., Irving, M. J., Short, S. D., Tennant, M., & Gilroy, J. A. (2018). Strengthening Indigenous cultural competence in dentistry and oral health education: Academic perspectives. *European Journal of Dental Education*, 23(1). https://doi.org/10.1111/eje.12398

Forsyth, C. J., Irving, M. J., Short, S. D., Tennant, M., & Gilroy, J. A. (2019). Students don't know what they don't know: Dental and oral health students' perspectives on developing cultural competence regarding Indigenous peoples. *Journal of Dental Education*, 83(6), 679–686.

Forsyth, C. J., Irving, M. J., Tennant, M., Short, S. D., & Gilroy, J. A. (2016). Teaching cultural competence in dental education: A systematic review and exploration of implications for Indigenous populations in Australia. *Journal of Dental Education*, 81(8), 956–968.

Forsyth, C. J., Irving, M. J., Tennant, M., Short, S. D., & Gilroy, J. A. (2017). Indigenous cultural competence: A dental faculty curriculum review. *European Journal of Dental Education*, 23(1). https://doi.org/10.1111/eje.12320

Forsyth, C. J., Short, S. D., Gilroy, J. A., Tennant, M., & Irving, M. J. (2020). An Indigenous cultural competence model for dentistry education. *British Dental Journal*, 228(9), 719–725.

Ganesharajah, C. (2009). *Indigenous health and wellbeing: The importance of country.* Australian Institute of Aboriginal and Torres Strait Islander Studies. https://aiatsis.gov.au/sites/default/files/research_pub/ganesharajah-2009-indigenous-health-wellbeing-importance-country_3.pdf

Gilroy, J. (2009). The theory of the cultural interface and Indigenous people with a disability in NSW. *Balayi: Culture, Law and Colonialism*, 10, 44–59.

Gilroy, J., & Donelly, M. (2016). Australian Indigenous people with disability: Ethics and standpoint theory. In S. Grech & K. Soldatic (Eds.), *Disability in the global south: The critical handbook* (pp. 545–566). Springer.

Gilroy, J., Donelly, M., Colmar, S., & Parmenter, T. (2013). Conceptual framework for policy and research development with Indigenous people with disabilities. *Australian Aboriginal Studies*, 2, 42–58.

Goode, T., Haywood, S., Wells, N., & Rhee, K. (2009). Family-centered, culturally, and linguistically competent care: Essential components of the medical home. *Pediatric Annals*, 38(9). https://doi.org/10.3928/00904481-20090820-04

Johnston, M. (2020). Locating Human Rights in the Cultural Competence Context. In: Frawley et al., (eds.), *Cultural Competence and the Higher Education Sector*. Springer, Singapore. https://doi.org/10.1007/978-981-15-5362-2_4

Larson, A., Coffin, J., Gilles, M., & Howard, P. (2007). It's enough to make you sick: The impact of racism on the health of Aboriginal Australians. *Australia and New Zealand Journal of Public Health, 31*(4), 322–328.

Latulippe, N. (2015). Bridging parallel rows: Epistemic difference and relational accountability in cross-cultural research. *International Indigenous Policy Journal*, 6(2).

Marino, R., Morgan, M., & Hopcraft, M. (2012). Transcultural dental training: Addressing the oral health care needs of people from culturally diverse backgrounds. *Community Dentistry and Oral Epidemiology*, *40*(S2), 134–140.

Martin, K. (2003). Ways of knowing, being and doing: A theoretical framework and methods for Indigenous and Indigenist re-search. *Journal of Australian Studies*, *27*(76), 203–214.

Moreton-Robinson, A. (2004). Whiteness, epistemology and Indigenous representation. In A. Moreton-Robinson (Ed.), *Whitening race: Essays in social and cultural criticism* (pp. 75–88). Aboriginal Studies Press.

Moreton-Robinson, A., Casey, M., & Nicoll, F. (2008). *Transnational whiteness matters*. Lexington Books.

Nakata, M. (1998). Anthropological texts and Indigenous standpoints. *Australian Aboriginal Studies*, *2*, 3–12.

Nakata, M. (2004). *Indigenous knowledge and the cultural interface: Underlying issues at the intersection of knowledge and information systems*. Post Press.

Nakata, M., Nakata, V., Keech, S., & Bolt, R. (2012). Decolonial goals and pedagogies for Indigenous studies. *Decolonization: Indigeneity, Education & Society*, *1*(1), 120–140.

National Center for Cultural Competence. (2004). *A guide to infusing cultural & linguistic competence in health promotion training*. Georgetown University Center for Child & Human Development. https://nccc.georgetown.edu/video-infusing-clc/continuum.pdf

National Health and Medical Research Council. (2003). *Values and ethics: Guidelines for ethical conduct in Aboriginal and Torres Strait Islander health research.* Australian Government Publishing. https://www.nhmrc.gov.au/about-us/publications/values-and-ethics-guidelines-ethical-conduct-aboriginal-and-torres-strait-islander-health-research

National Health and Medical Research Council. (2018). *Ethical conduct in research with Aboriginal and Torres Strait Islander peoples and communities: Guidelines for researchers and stakeholders*. Commonwealth of Australia. https://www.nhmrc.gov.au/about-us/resources/ethical-conduct-research-aboriginal-and-torres-strait-islander-peoples-and-communities

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., Gupta, A., Kelaher M., & Gee, G. (2015). Racism as a determinant of health: A systematic review and meta-analysis. *PLoS ONE*, *10*(9). https://doi.org/10.1371/journal.pone.0138511

Ramsden, P. (2003). *Learning to teach in higher education* (2nd ed.). Routledge Falmer.

Reconciliation Australia. (n.d.). *What is reconciliation?* https://www.reconciliation.org.au/what-is-reconciliation/

Rigney, L-I. (1999). Internationalization of an Indigenous anticolonial cultural critique of research methodologies: A guide to Indigenist research methodology and its principles. *Wicazo Sa Review*, *14*(2), 109–121.

Salmon, M., Doery, K., Dance, P., Chapman, J., Gilbert, R., Williams, R., & Lovett, R. (2018). *Defining the undefinable: Descriptors of Aboriginal and Torres Strait Islander peoples' cultures and their links to health and wellbeing.* Aboriginal and Torres Strait Islander Health Team, Research School of Population Health, Australian National University. https://www.lowitja.org.au/page/services/resources/Cultural-and-social-determinants/culture-for-health-and-wellbeing/defining-the-indefinable-descriptors-of-aboriginal-and-torres-strait-islander-peoples'-cultures-and-their-links-to-health-and-wellbeing

Satur, J., Forsyth, C., Bolton, J. (2021). *Joining the dots: A dental Aboriginal and Torres Strait Islander cultural safety curriculum*, The University of Melbourne Dental School for the Australasian Council of Dental Schools.

Sherwood, J. (2009). Who is not coping with colonization? Laying out the map for decolonization. *Australasian Psychiatry*, *17*(S1), s24–s27.

Sherwood, J. (2013). Colonisation – It's bad for your health: The context of Aboriginal health. *Contemporary Nurse*, *46*(1), 28–40.

Sherwood, J., & Edwards, T. (2006). Decolonisation: A critical step for improving Aboriginal health. *Contemporary Nurse*, *22*(2), 178–190.

Thackrah, R., & Thompson, S. (2013). Refining the concept of cultural competence: Building on decades of progress. *Medical Journal of Australia*, *199*(1), 35–38.

Tuhiwai-Smith, L. (1999). *Decolonising methodologies: Research and Indigenous peoples.* University of Otago Press.

Universities Australia. (2011a). *Guiding principles for developing Indigenous cultural competence in Australian universities.* https://www.universitiesaustralia.edu.au/wp-content/uploads/2019/06/Guiding-Principles-for-Developing-Indigenous-Cultural-Competency-in-Australian-Universities.pdf

Universities Australia. (2011b). *National best practice framework for Indigenous cultural competence in Australian universities.* https://www.universitiesaustralia.edu.au/wp-content/uploads/2019/06/National-Best-Practice-Framework-for-Indigenous-Cultural-Competency-in-Australian-Universities.pdf

Watt, R. (2007). From victim blaming to upstream action: Tackling the social determinants of oral health inequalities. *Community Dentistry and Oral Epidemiology*, *35*(1), 1–11.

Wilkinson, R., & Marmot, M. (2003). *Social determinants of health: The solid facts*. World Health Organization Regional Office for Europe. https://apps.who.int/iris/handle/10665/326568

Williamson, J., & Dalal, P. (2007). Indigenising the curriculum or negotiating the tensions at the cultural interface? Embedding Indigenous perspectives and pedagogies in a university curriculum. *The Australian Journal of Indigenous Education*, *36*(S1), 51–58.

World Health Organization. (2008). *Closing the gap in a generation: Commission on social determinants of health final report*. https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1

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