

Beyond the pipeline: a critique of the discourse surrounding the development of an Indigenous primary healthcare workforce in Australia

Chelsea Bond^{A,E}, Mark Brough^B, Jon Willis^A, Janet Stajic^A, Bryan Mukandi^D, Condy Canuto^A, Shannon Springer^C, Deborah Askew^D, Lynnell Angus^A and Tara Lewis^A

^AThe University of Queensland Poche Centre for Indigenous Health, Brisbane, Qld 4072, Australia.

^BQueensland University of Technology, GPO Box 2434, Brisbane, Qld 4001, Australia.

^CBond University, 14 University Drive, Robina, Qld 4226, Australia.

^DThe University of Queensland School of Medicine, Brisbane, Qld 4072, Australia.

^ECorresponding author. Email: c.bond3@uq.edu.au

Abstract. A central strategy in addressing health disparities experienced by Indigenous people has been based on a concern with workforce improvement. In this paper, the Indigenous Australian healthcare workforce literature since 1977 is reviewed and its scope of concern, as being often limited to questions of ‘supply’, is critiqued. The pipeline metaphor, whether used explicitly or implied, regularly focuses attention on closing the gap on Indigenous representation within the health workforce. The exception though is the discourse concerning Indigenous Health Workers (IHWs), where questions concerning the legitimacy of the role continue to abound within a workforce hierarchy where community knowledge, though shown to be crucial to culturally safe health service provision, is trumped by the other health professions whose knowledges and legitimacy are not in question. This contrast exemplifies the need to examine the working of power not just ‘supply’. The pipeline metaphor is disrupted with concerns about a range of other ‘gaps’ – gaps in the recognition of Indigenous knowledges, in organisational structures, in governance and in self-awareness by the health professions of their whiteness. As the health system continues to measure workforce development in terms of pipeline capacity, our study questions what happens beyond the pipeline.

Received 18 February 2019, accepted 11 July 2019, published online 17 October 2019

Introduction

Addressing the health inequality faced by Aboriginal and Torres Strait Islander people must involve ensuring the provision of an appropriate health workforce (National Aboriginal and Torres Strait Islander Health Workforce Working Group 2017). Paramount here is an accountability to ensure Aboriginal and Torres Strait Islander people are present in numbers across the health disciplines, that they are valued and supported to take on leadership roles within the health system. While workforce development has been a regular component of various national and state policies concerned with the health of Aboriginal and Torres Strait Islander people for some time – for example, National Aboriginal Health Strategy (National Aboriginal Health Strategy Working Party 1989), Deaths in Custody Report (Johnston 1991) – change remains slow. According to the 2016 census, 3.8% of non-Indigenous Australian workers were employed in the healthcare system, but only 2% of Indigenous workers were employed in health (Australian Bureau of Statistics (ABS) 2016). A recent national study of the Aboriginal and Torres Strait Islander Health Worker workforce between 2000 and 2016 (Wright *et al.* 2019) found overall growth was not commensurable with population growth and, in some regions, was on the decline.

Higher education has a significant role to play in health workforce supply, but there are few indications that it will be making a difference anytime soon. Although Aboriginal and Torres Strait Islander enrolments in tertiary health-related courses have been increasing since the early 2000s, lower than expected completion rates have meant that the number of Indigenous graduates entering the field has not increased significantly (National Aboriginal and Torres Strait Islander Health Workforce Working Group 2015). With this in mind, we seek here to provide an overview of the workforce literature to inform ways forward in this important area of Indigenous health. Our purpose is not to simply review the disparities in Indigenous health workforce participation, but to critically appraise how the barriers and enablers to Indigenous health workforce participation have been conceptualised within the published literature – and by extension, by the health system as a whole – to date.

The Aboriginal Health Worker

The starkest pattern within the workforce literature is the difference between the literature concerned with Aboriginal Health Workers and the literature reporting on those health disciplines situated more squarely within the academy of

What is known about the topic?

- There are several reviews of parts of the Indigenous health workforce development strategy, as well as numerous papers that examine the failures and successes of parts of the workforce pipeline.

What does this paper add?

- An understanding of the place of Indigenous health sovereignty and community capability in developing an appropriate primary healthcare workforce.

Western health sciences. The critical role of Aboriginal health workers in the history of Indigenous health is evident in the workforce literature, where they embodied Indigenous-led health long before any of the ‘mainstream’ disciplines took up any interest in Aboriginal and Torres Strait Islander people occupying any roles in the health system other than the patient role. The pivotal contribution made by the *Aboriginal Health Worker Journal* from its first issue in March 1977 cannot be underestimated. It provided the first significant forum for the discussion of Indigenous health by Indigenous people, and remains a vital archive of that ongoing discussion. A short article in the second edition of the Journal by Kumunjayi Jakamarra (Jakamarra and Peile 1977) entitled *From Health Worker to Health Worker* subtitled, *A Ngangkari speaks*, led with the following words:

I have been working as a *Ngangkari* or Medicine Man for my people for a long time. It took many years to train for this vocation. I still continue to learn many things from the old people.

Like so many other health workers, Jakamarra was of the community rather than of a ‘discipline’. Knowledge of practice was held by the community and was passed down rather than learnt at University. Before non-Indigenous health sciences became concerned with the social epidemiology of Aboriginal and Torres Strait Islander health, a group of Aboriginal Health Workers from East Arnhem Land wrote a paper on *Our Social Environment* (Munungguritj *et al.* 1978). Among other social issues, they spoke of their own dilemmas as health workers:

Our new job as health workers isn’t an easy one in some communities. A lot of our people don’t trust us. If somebody dies in the hospital, they demand we close it down. We tell them to ask the Council, but they still threaten us. We don’t feel safe. Some people seem very jealous of us. Maybe they think we’re too European.

The history of the Aboriginal Health Worker role since this time deserves its own thorough articulation. It is evident that over the years, a significant literature has evolved, which has sought wide and institutional recognition of this role (Abbott *et al.* 2007; Hill *et al.* 2018), and has built the evidence base to demonstrate the importance of the health worker to health outcomes for Aboriginal and Torres Strait Islander people in a variety of areas including cardiovascular disease (Deshmukh *et al.* 2014),

maternity care (Stamp *et al.* 2008) cardiology (Taylor *et al.* 2009) sexual health (Templeton *et al.* 2010) and smoking cessation (Thompson 2011a). This literature could be valued for the evidence it provides of the ‘value’ of Aboriginal Health Workers and the authority it commands for this role, but it also indicates a hierarchy within health professions; it is unlikely that there is contemporaneous research seeking to validate the need for doctors, for example. Biomedical research is free to focus on the efficacy of particular practices rather than on establishing the validity of the practitioners. Much of the literature about and by health workers demonstrates that deep knowledge of community informs an Indigenous practice and cannot be simplistically tethered to a set of biomedical ‘competencies’.

Despite the crucial capacity of Indigenous Health Workers to provide leadership in culturally safe health service provision, the literature about them (rather than by them) emphasises the task of ‘upskilling’, ‘development’, ‘empowering’ and ‘enhancing’ the capabilities of the Indigenous Health Worker rather than reconfiguring the provision of health care. Here, our attention is drawn to the ‘challenges’ and ‘barriers’ to better health outcomes *because* of the Indigenous health worker workforce via high smoking rates, poor retention, lack of awareness of specialist expertise and poor numeracy and literacy levels (Hecker 1997; Pacza *et al.* 2001; Williams 2001; Mark *et al.* 2005; Bailey *et al.* 2006; Harris and Robinson 2007; McRae *et al.* 2008; Dawson *et al.* 2012a). The Indigenous health worker is rendered ‘part of the problem’ that the health system must remedy. This is exemplified in Indigenous smoking cessation literature, which concerns itself with the smoking habits of Indigenous health workers (Mark *et al.* 2005; Thompson 2011b; Dawson *et al.* 2012b) rather than the failure of mainstream approaches to smoking cessation. Would it be pertinent to consider the extent to which failures in the national effort to reduce obesity or cardiovascular risk can be blamed on the eating habits of nutritionists or the exercise routines of doctors?

Indigenous people in health professions

Outside of the Indigenous Health Worker role, the Indigenous health workforce literature is a phenomenon of the 2000s. Concerns about the substantial disparities in health outcomes for Aboriginal and Torres Strait Islander people became a feature of Australian health research in the 1990s, and it took a decade or more for a concern about workforce disparities to be attached to this research agenda. Despite the importance of national strategies to address health workforce disparities, the underpinning evidence to inform these strategies is piecemeal across health disciplines.

The dominant consideration in the literature is about improving the supply chain of Indigenous health professionals. Murray and Wronski (2006) utilise a common metaphor for this in their concern for ‘the pipeline’. This metaphor is synonymous and performs a similar conceptual function as that of ‘the pathway’. Anderson (2011), for example, refers to ‘professional pipelines’, the ‘secondary school pipeline’ and the ‘VET sector and workforce pipelines’ throughout his ‘Indigenous Pathways into the Professions’ report. Goold (2006) does not use the metaphor, but addresses the pragmatics of ‘gettin em’ and

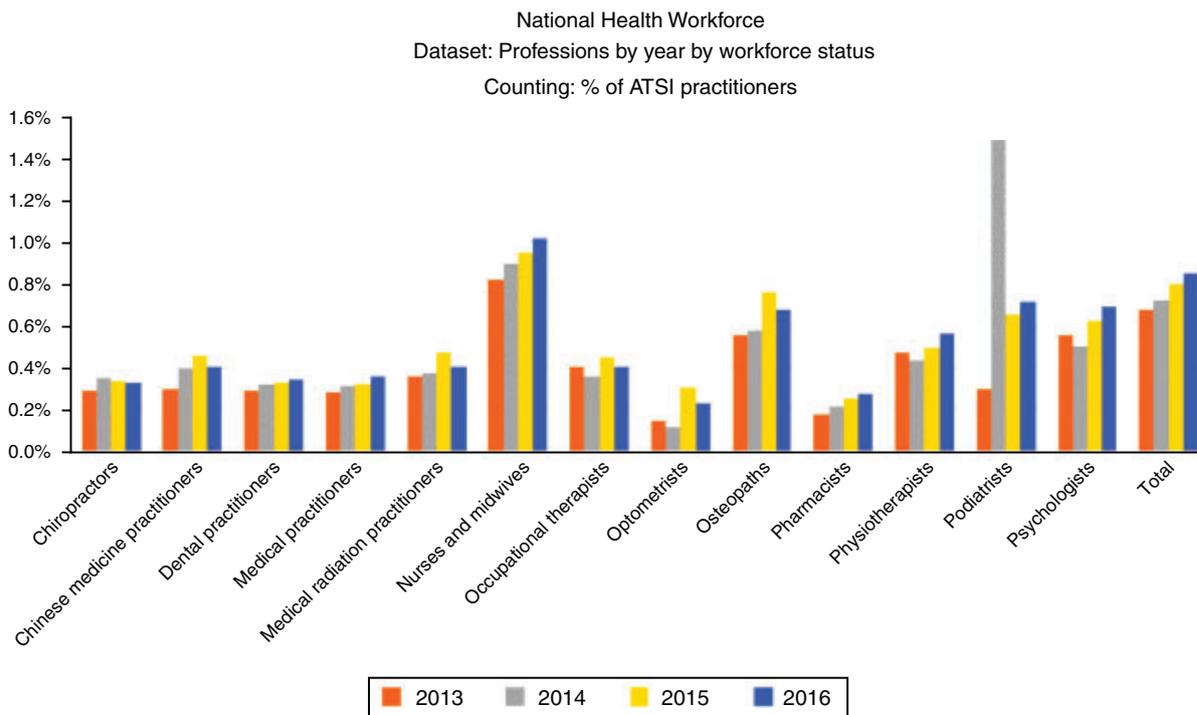


Fig. 1. Aboriginal and Torres Strait Islander registered health practitioners as a percentage of their respective professions, 2013–16. Source: National Health Workforce Datasets (ABS 2016, 2017; Australian Institute for Health and Welfare 2019).

‘keepin em’. Whether explicitly stated or implied, the notion of securing an adequate supply of workers to meet a chosen need is a common way in which workforce issues are considered. Ironically, this ostensibly pragmatic agenda rarely struggles with other genuinely pragmatic concerns, including most importantly, accountabilities for the ways in which the health system works for Aboriginal and Torres Strait Islander people.

The data presented in Figure 1, drawn from the National Health Workforce Dataset (ABS 2016, 2017; Australian Institute for Health and Welfare 2019), demonstrate that if such pipelines exist, someone has forgotten to turn on the tap. Other than an anomalous spike in podiatry in 2014, no discipline other than nursing and midwifery boasts a rate of Indigenous practitioners that exceeds 1% of their profession, and most disciplines languish below 0.5%. By comparison, Aboriginal and Torres Strait Islander people represented 2.8% of the general population in the 2016 census (ABS 2017). The largest Indigenous profession by numbers was Nursing and Midwifery, with 3202 registered practitioners in 2016, with Medical Practitioners coming in a distant second, with 329 registered practitioners in 2016. The rest of registered Indigenous practitioners combined would struggle to fill a lecture theatre. This is not a pipeline. This is a thin dribble.

Medicine and nursing are the most visible health disciplines in Indigenous workforce research. The medical workforce research deals mostly with issues in medical education: the role of pre-med programs (D’Antoine and Paul 2006); reasons for Indigenous students withdrawing from medical degrees (Ellender *et al.* 2008); Indigenous medical students’ perceptions of their training (Garvey *et al.* 2009); and reforming medical training (Mackean *et al.* 2007). The nursing workforce literature

is similarly focussed on training, with an emphasis on support strategies for nursing students (Usher *et al.* 2005a, 2005b, 2005c; Goold 2006; Cameron 2010; Stuart *et al.* 2010; Felton-Busch *et al.* 2013; Mills *et al.* 2014), as well as a variety of other issues: ‘reducing reality shock’ for Indigenous nursing graduates (Hinton and Chirgwin 2010); the factors shaping nursing experience (Martin and Kipling 2006); attracting and retaining Indigenous nursing students (Wollin *et al.* 2006); and the value of Aboriginal nurses for nursing Aboriginal patients (Stuart and Nielsen 2010; West *et al.* 2010).

Other health-related disciplines are much less represented in the literature; for example, psychology (Wainwright *et al.* 2012; Cameron and Robinson 2014), disability work (Gilroy *et al.* 2017) and social work (Walter *et al.* 2011). Many other allied health disciplines do not appear to have engaged with concerns about Indigenous representation within their ranks, at least in their respective workforce literatures, and accountabilities of professional bodies to strategise or even report on their Indigenous workforces are missing from available literature. These silences are echoed in the registration data presented in Figure 1.

Beyond the pipeline

Beyond the pipeline of Indigenous recruits into the health professions lie other concerns reflected; for example, in the consideration by Fredericks (2009) of the positioning of Aboriginal women working in health. When Walter *et al.* (2011) ask how white is social work, they are not asking about the numbers. Their consideration of the habitus of social work via whiteness theory asks how social work practice is entrenched

within a white habitus. When Kelaher *et al.* (2014) ask if more equitable governance leads to more equitable health care in Aboriginal health, they are questioning the contours of power not a simplistic enumeration of workforce management. When Whiteside *et al.* (2006) consider empowerment as a framework for Indigenous workforce development, they demonstrate that power operates for Indigenous workers within organisations in the same way as for Indigenous clients. When Humphreys *et al.* (2008) consider the needs of rural and remote health, they highlight systemic organisational structures not just pipelines of workers. These are all important papers for injecting alternate questions into the workforce literature, but they are few in number and may not represent all that happens beyond the pipeline. We are not suggesting that increasing the supply chain does not matter. Like Cannady *et al.* (2014), who critiqued the dominance of the 'pipeline' framework in Science, Technology, Engineering and Maths (STEM) efforts to improve workforce diversity, we worry about what else there is to consider.

We argue that we need to hear more from Indigenous health professionals who have made it through 'the pipeline', and how those individuals might have experienced their Indigenous 'selves' within disciplinary spaces that have excluded or marginalised Indigenous knowledges, perspectives and experiences. Such voices could inform the workforce agenda in a genuinely transformational way. We acknowledge the emergent literature of testimonies (in textbook case studies, online opinion pieces and reflective essays) from Indigenous health professionals speaking about the inadequacies of the health system, made more powerful by their location as members of the health workforce. Take for instance the writings of Best (2014), an Aboriginal nurse, and later Buzzacott (2018), an Aboriginal midwife, who both talk about their experiences of racism as recipients of care. It is via their knowledge of what constitutes 'clinical care' in a biomedical sense that they were able to illuminate more powerfully the mechanisms by which racism was so readily enacted, and they speak to its embodied consequences upon their health and that of others. Rallah-Baker (2018), the first (and only) Indigenous ophthalmologist most recently spoke back to his discipline:

My own dealings with blatant racism, degradation, training delays, bullying, harassment and racial vilification are unfortunately considered an unremarkable experience amongst my Indigenous medical brethren. To many of us, racially motivated workplace violence is the norm. Institutionalised racism, unconscious bias and cultural insensitivity might sound like buzzwords people kick around, but they are real and their impact is real.

Experiences like these disrupt paternalistic assumptions within the health system and higher education that focus attention on various ways the system might 'better support' Indigenous people either in training for the workforce or in the workforce, while at the same time never acknowledging the institutional abuses that lead to the need for that support.

Conclusion

It is not surprising that racism might be a central feature of the experiences of Indigenous health professionals, whether one is an 'untrained' health worker or a medical specialist. In fact,

racism remains the elephant in the room when it comes to the Indigenous health workforce literature – for it is racism that long prohibited Indigenous peoples' access to educational and employment opportunities within the health system. The recent emergence of an Indigenous health workforce has resulted in a richer understanding of the experiences of Indigenous health professionals, but this contribution still remains marginalised within health workforce literature. This is not to say that Indigenous people have not been theorising about racism. As Professor Aileen Moreton-Robinson (2015) states:

When Indigenous people raise issues of racism within the workforce, they are more often than not positioned as 'troublemakers' or are represented as being 'too sensitive.' What is often not understood by one's 'white workmates' is the way in which the work environment supports and normalises their behaviour and attitudes... Many of us work in white male-dominated environments, often belonging to the first generation of Indigenous professionals, and we have to manage and negotiate white systems, knowledges, practices, and people. The workforce can be a place of great stress and anxiety because of the added burden of being the known and knowing stranger in a space where we are both in and out of place... we also know that our knowledges about ourselves have very little impact on the work environment because we are not in control. Instead, we have to endure the white gaze in all its manifestations as we try to earn a living for our families (Moreton-Robinson 2015, p. 99).

This growing Indigenous health workforce can illuminate understandings of how race operates within the health system in far more sophisticated ways than the epidemiologist seeking to measure it. The real challenge in addressing the disparities of health workforce representation lies in a preparedness to consider how power operates in the production and maintenance of health inequalities.

In 1989, John Newfong wrote the forward to the National Aboriginal Health Strategy. He argued that any measure aimed to address Indigenous health could not dismiss the realities of Indigenous Australia. He observed that Aboriginal Australians were 'not even kept alive for their labour', and when they were, were underpaid and considered 'unreliable'. Thirty years on, we need to heed John's advice. Indigenous health workforce issues exist in the same realities. There's no pipeline we know of that lets Indigenous people escape them.

Conflicts of interest

The authors declare no conflicts of interest.

Acknowledgements

This research has been supported by the Lowitja Institute's 'health service and workforce' research program.

References

- Abbott P, Gordon E, Davison J (2007) Expanding roles of Aboriginal health workers in the primary care setting: seeking recognition *Contemporary Nurse* 26(1), 66–73. doi:10.5172/conu.2007.26.1.66
- Anderson I (2011) Indigenous pathways into the professions. Department of Health, Australian Government: Canberra, ACT, Australia.

- Australian Bureau of Statistics (ABS) (2016) 2016 Census - Employment, Income and Education (June 2016), TableBuilder. Findings based on use of ABS TableBuilder data. ABS: Canberra, ACT, Australia.
- Australian Bureau of Statistics (ABS) (2017) 2016 Census shows growing Aboriginal and Torres Strait Islander population. (ABS: Canberra, ACT, Australia) Available at <http://www.abs.gov.au/ausstats/abs@.nsf/MediaReleasesByCatalogue/02D50FAA9987D6B7CA25814800087E03> [Verified 19 August 2019]
- Australian Institute for Health and Welfare (2019) National Health Workforce Datasets. (AIHW: Canberra, ACT, Australia) Available at <https://www.aihw.gov.au/about-our-data/our-data-collections/national-health-workforce-dataset> [Verified 19 August 2019]
- Bailey J, Veitch C, Crossland L, Preston R (2006) Developing research capacity building for Aboriginal & Torres Strait Islander health workers in health service settings. *Rural and Remote Health* 6(4), 556.
- Best O (2014) The cultural safety journey: an Australian nursing context. In 'Yatdjulin: Aboriginal and Torres Strait Islander Nursing & Midwifery Care'. (Eds O Best, B Fredericks) pp. 51–79. (Cambridge University Press: London, UK)
- Buzzacott C (2018) I said 'I'm in labour' but no one listened. *IndigenousX*. Available at <https://indigenousx.com.au/i-said-im-in-labour-but-no-one-listened/> [Verified 19 August 2019]
- Cameron L (2010) Supporting Indigenous nursing students. *Australian Nursing Journal* 18(6), 39.
- Cameron S, Robinson K (2014) The experiences of Indigenous Australian psychologists at university. *Australian Psychologist* 49(1), 54–62. doi:10.1111/ap.12036
- Cannady M, Greenwald E, Harris K (2014) Problematizing the STEM pipeline metaphor: is the STEM pipeline metaphor serving our students and the STEM workforce? *Science Education* 98(3), 443–460.
- D'Antoine N, Paul D (2006) Pre-medicine and Pre-dentistry Program: creating opportunity for Indigenous students. *Aboriginal and Islander Health Worker Journal* 30(3), 6–8.
- Dawson AP, Cargo M, Stewart H, Chong A, Daniel M (2012a) Aboriginal health workers experience multilevel barriers to quitting smoking: a qualitative study. *International Journal for Equity in Health* 11, 27. doi:10.1186/1475-9276-11-27
- Dawson AP, Cargo M, Stewart H, Chong A, Daniel M (2012b) "I know it's bad for me and yet I do it": exploring the factors that perpetuate smoking in Aboriginal Health Workers – a qualitative study. *BMC Health Services Research* 12(1), 102. doi:10.1186/1472-6963-12-102
- Deshmukh T, Abbott P, Reath J (2014) 'It's got to be another approach': an Aboriginal health worker perspective on cardiovascular risk screening and education. *Australian Family Physician* 43(7), 475–478.
- Ellender I, Drysdale M, Chesters J, Faulkner S, Kelly H, Turnbull L (2008) When a dream becomes a nightmare: why do Indigenous Australian medical students withdraw from their courses? *The Australian Journal of Indigenous Education* 37, 40–47. doi:10.1017/S1326011100016070
- Felton-Busch C, Maza K, Ghee M, Mills F, Mills J, Hitchins M, Park T, Chamberlain-Salaun J (2013) Using mentoring circles to support Aboriginal and Torres Strait Islander nursing students: guidelines for sharing and learning. *Contemporary Nurse* 46(1), 135–138. doi:10.5172/conu.2013.46.1.135
- Fredericks B (2009) 'Getting a job': Aboriginal women's issues and experiences in the health sector. *International Journal of Critical Indigenous Studies* 2(1), 24–35. doi:10.5204/ijcis.v2i1.34
- Garvey G, Rolfé IE, Pearson SA, Treloar C (2009) Indigenous Australian medical students' perceptions of their medical school training. *Medical Education* 43(11), 1047–1055. doi:10.1111/j.1365-2923.2009.03519.x
- Gilroy J, Dew A, Lincoln M, Hines M (2017) Need for an Australian Indigenous disability workforce strategy: review of the literature. *Disability and Rehabilitation* 39(16), 1664–1673. doi:10.1080/09638288.2016.1201151
- Gould S (2006) 'Getting em n keepin em': Indigenous issues in nursing education. *Australian Aboriginal Studies* 2, 57–61.
- Harris A, Robinson G (2007) The Aboriginal Mental Health Worker Program: the challenge of supporting Aboriginal involvement in mental health care in the remote community context *Australian e-Journal for the Advancement of Mental Health* 6(1), 15–25. doi:10.5172/jamh.6.1.15
- Hecker R (1997) Participatory action research as a strategy for empowering Aboriginal health workers. *Australian and New Zealand Journal of Public Health* 21(7), 784–788. doi:10.1111/j.1467-842X.1997.tb01795.x
- Hill K, Harvey N, Felton-Busch C, Hoskins J, Rasalam R, Malouf P, Knight S (2018) The road to registration: Aboriginal and Torres Strait Islander health practitioner training in North Queensland *Rural and Remote Health* 18, 3899. doi:10.22605/RRH3899
- Hinton A, Chirgwin S (2010) Nursing education: reducing reality shock for graduate Indigenous nurses – it's all about time. *The Australian Journal of Advanced Nursing* 28(1), 60–66.
- Humphreys JS, Wakeman J, Wells R, Kuipers P, Jones JA, Entwistle P (2008) "Beyond workforce": a systemic solution for health service provision in small rural and remote communities *The Medical Journal of Australia* 188(8), S77–S80.
- Johnston E (1991) Royal Commission into the Aboriginal Deaths in Custody: National Report. Australian Government Printing Services: Canberra, ACT, Australia.
- Jakamarra K, Peile A (1977) Across Australia ... from Health Worker to Health Worker. *Aboriginal and Islander Health Worker Journal* 1(2), 19–21.
- Kelaher M, Sabanovic H, La Brooy C, Lock M, Lusher D, Brown L (2014) Does more equitable governance lead to more equitable health care? A case study based on the implementation of health reform in Aboriginal health Australia. *Social Science & Medicine* 123, 278–286. doi:10.1016/j.socscimed.2014.07.032
- Mackean T, Mokak R, Carmichael A, Phillips GL, Prideaux D, Walters TR (2007) Reform in Australian medical schools: a collaborative approach to realising Indigenous health potential. *The Medical Journal of Australia* 186(10), 544–546.
- Mark A, McLeod I, Booker J, Ardler C (2005) Aboriginal health worker smoking: a barrier to lower community smoking rates? *Aboriginal and Islander Health Worker Journal* 29(5), 22–26.
- Martin DE, Kipling A (2006) Factors shaping Aboriginal nursing students' experiences. *Nurse Education Today* 26, 688–696. doi:10.1016/j.nedt.2006.07.013
- McRae M, Taylor SJ, Swain L, Sheldrake C (2008) Evaluation of a pharmacist-led, medicines education program for Aboriginal health workers. *Rural and Remote Health* 8(4), 946.
- Mills J, Felton-Busch C, Park T, Maza K, Mills F, Ghee M, Hitchins M, Chamberlain-Salaun J, Neundorff N (2014) Supporting Australian Torres Strait Islander and Aboriginal nursing students using mentoring circles: an action research study. *Higher Education Research & Development* 33(6), 1136–1149. doi:10.1080/07294360.2014.911262
- Moreton-Robinson A (2015) 'The White Possessive: property, power and Indigenous sovereignty.' (University of Minnesota Press: Minneapolis, MS, USA)
- Mununggurij N, Burray Purray J, Gemuluwuy D, Bara P, Mamarika E (1978) Our social environment: views from health workers. *Aboriginal and Islander Health Worker Journal* 2(1), 4–8.
- Murray RB, Wronski I (2006) When the tide goes out: health workforce in rural, remote and Indigenous communities. *The Medical Journal of Australia* 185(1), 37–38.
- National Aboriginal and Torres Strait Islander Health Workforce Working Group (2015) Annual Report to the Health Workforce Principal Committee. Australian Health Ministers' Advisory Council: Canberra, ACT, Australia.

- National Aboriginal and Torres Strait Islander Health Workforce Working Group (2017) National Aboriginal and Torres Strait Islander health workforce strategic framework 2016–2023. Australian Health Ministers' Advisory Council: Canberra, ACT, Australia.
- National Aboriginal Health Strategy Working Party (1989) A national Aboriginal health strategy. National Aboriginal Health Strategy Working Party: Canberra, ACT, Australia.
- Pacza T, Steele L, Tennant M (2001) Development of oral health training for rural and remote Aboriginal health workers. *The Australian Journal of Rural Health* **9**(3), 105–110. doi:10.1046/j.1440-1584.2001.00294.x
- Rallah-Baker K (2018) Closing the gap from both sides. Insight: Australia's newspaper of ophthalmic optics. (Gunnamatta Media Pty Ltd: Melbourne, Vic., Australia) Available at <https://www.insightnews.com.au/Article3/1819/Closing-the-gap-from-both-sides> [Verified 19 August 2019]
- Stamp G, Champion S, Anderson G, Warren B, Stuart-Butler D, Doolan J, Boles C, Callaghan L, Foale A, Muyambi C (2008) Aboriginal maternal and infant care workers: partners in caring for Aboriginal mothers and babies. *Rural and Remote Health* **8**(3), 883.
- Stuart L, Nielsen AM (2010) Two Aboriginal registered nurses show us why Black nurses caring for Black patients is good medicine. *Contemporary Nurse* **37**(1), 96–101. doi:10.5172/conu.2010.37.1.096
- Stuart L, Nielsen AM, Horner VE (2010) Support strategies that graduate Indigenous nurses – a dreaming journey. *Journal of Australian Indigenous Issues* **13**(3), 95–100.
- Taylor KP, Thompson SC, Smith JS, Dimer L, Ali M (2009) Exploring the impact of an Aboriginal health workers on hospitalised Aboriginal experiences: lessons from cardiology. *Australian Health Review* **33**(4), 549–557. doi:10.1071/AH090549
- Templeton DJ, Tyson BA, Meharg JP, Habgood KE, Bullen PM, Malek S, McLean R (2010) Aboriginal health worker screening for sexually transmissible infections and blood-borne viruses in a rural Australian juvenile correctional facility. *Sexual Health* **7**(1), 44–48. doi:10.1071/SH09035
- Thompson M (2011a) A review of the barriers preventing Indigenous health workers delivering tobacco interventions to their communities. *Australian and New Zealand Journal of Public Health* **35**(1), 47–53. doi:10.1111/j.1753-6405.2010.00632.x
- Thompson M (2011b) 'The best bang for our buck': recommendations for the provision of training for tobacco action workers and Indigenous health workers. *Contemporary Nurse* **37**(1), 90–91. doi:10.5172/conu.2011.37.1.090
- Usher K, Lindsay D, Mackay W (2005a) An innovative nurse education program in the Torres Strait Islands. *Nurse Education Today* **25**(6), 437–441. doi:10.1016/j.nedt.2005.04.003
- Usher K, Lindsay D, Miller M, Miller A (2005b) Challenges faced by Indigenous nursing students and strategies that aided their progress in the course: a descriptive study. *Contemporary Nurse* **19**(1–2), 17–31. doi:10.5172/conu.19.1-2.17
- Usher K, Miller M, Turale S, Goold S (2005c) Meeting the challenges of recruitment and retention of Indigenous people into nursing: outcomes of the Indigenous Nurse Education Working Group. *Collegian (Royal College of Nursing, Australia)* **12**(3), 27–31. doi:10.1016/S1322-7696(08)60498-9
- Wainwright J, Gridley H, Sampson E (2012) Facing a world of NO: how accessible is a career in psychology for Aboriginal and Torres Strait Islander Australians? *The Australian Community Psychologist* **24**(2), 143–151.
- Walter M, Taylor S, Habibis D (2011) How White is social work in Australia? *Australian Social Work* **64**(1), 6–19. doi:10.1080/0312407X.2010.510892
- West R, Usher K, Foster K (2010) Increased numbers of Australian Indigenous nurses would make a significant contribution to 'closing the gap' in Indigenous health: what is getting in the way? *Contemporary Nurse* **36**(1–2), 121–130. doi:10.5172/conu.2010.36.1-2.121
- Whiteside M, Tsey K, Cadet-James Y, Wilson A (2006) Empowerment as a framework for Indigenous workforce development and organisational change. *Australian Social Work* **59**(4), 422–434. doi:10.1080/03124070600985996
- Williams S (2001) The Indigenous Australian health worker: can research enhance their development as health and community development professionals? *Aboriginal and Islander Health Worker Journal* **25**(1), 9–15.
- Wollin J, Cannon C, Douglas H, Fairweather C, Perrett S, Ingamells A, Purcell C (2006) Attracting and retaining Indigenous students to university for nursing education. *Australian Vocational Educational Review* **13**(1), 1–5.
- Wright A, Briscoe K, Lovett R (2019) A national profile of Aboriginal and Torres Strait Islander health workers, 2000–2016. *Australian and New Zealand Journal of Public Health* **43**(1), 24–26. doi:10.1111/1753-6405.12864