

‘It’s a different world out there’: Improving how academics prepare health science students for rural and Indigenous practice in Australia

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Rural and Aboriginal and Torres Strait Islander (Indigenous) health content in undergraduate health science curricula in Western Australia has been limited. In 2008, a three and a half day, rurally based, intercultural and interdisciplinary programme for academics from three universities aimed to improve how academics prepared health science students for work in this area. Situated learning theory underpinned the programme’s design that prioritised context and participation in the construction of knowledge: academics lived ‘on country’ and participated in the lived experience of a rural and Indigenous community. Semi-structured phone interviews with 21 academics four months later indicated this approach radically changed thinking, led to a desire to improve rural and Indigenous health and teaching practice. Targeting academics to learn about rural and Indigenous health in situ is one promising strategy for improving undergraduate health science education in this priority area.

Key words: health education, racism, rural, remote and Indigenous health, situated learning, teaching practice

Rural and Indigenous health is recognised as an international priority (Anderson et al., 2006). In many developed countries there is a gradient of ill health between urban and rural/remote communities and between Indigenous and non-Indigenous people (Australian Institute of Health and Welfare (AIHW), 2008a). Proportionately more Australians living in rural areas suffer serious illness and injury than those living in metropolitan areas (AIHW, 2005, 2008b) and it is often the sickest people, including those from low socio-economic groups, who most need medical care and who often have great difficulty accessing services (Boffa, 2002). Historic and contemporary legacies of colonisation persist, such as racial discrimination against Aboriginal or Torres Strait Islander (Indigenous) Australians, often unchallenged and unreported in health care settings (Johnstone & Kanitsaki, 2009). Racism can damage health and lead to a reluctance to access health services (Taylor et al., 2009). Mainstream health services need to become safe and enabling environments offering respectful, quality care that recognises the lived social and cultural experiences of Indigenous Australians (Thompson, Shahid, Bessarab, Durey, & Davidson, 2011).

Despite the need for comprehensive and well-resourced health care to address health disparities, attracting and retaining health professionals to work in remote, rural and Indigenous health contexts remains an ongoing challenge (O'Toole, Schoo, Stagnitti, & Cuss, 2008). Well recognized also is the need to build rural and Indigenous content in undergraduate health training (Goold & Usher, 2006) though barriers exist including pressures of crowded curricula and academic staff with poor understandings of rural and Indigenous health (Crosbie et al., 2002; Edwards, 2005). Inconsistent findings have slowed the development of effective strategies to change teachers' negative beliefs, attitudes and behaviours around culturally diverse students (McAllister & Irvine, 2000). Empirical evidence is limited on the long-term effectiveness of education and training in culturally safe or competent care in translating knowledge to improving practice (Downing, Kowal, &

Paradies, 2011; Durey, 2010; Hill & Augoustinos, 2001). Studies suggest that quality rural placements for students and positive experiences of Indigenous culture are significant predictors to working in these contexts (Playford, Larson, & Wheatland, 2006; Taylor, Blue, & Misan, 2001). Universities play a key role in preparing health science graduates to meet the challenges of working in these settings. The question remains whether educators are well prepared to provide students with skills and competencies to deliver quality care in these contexts?

This question led to the design and implementation of an inter-cultural, interdisciplinary, three and a half day programme located in a rural setting that aimed to educate academics about rural and Indigenous health and inform their teaching practice. Bush Camps for Academics (BCA) offered the opportunity to engage not only with local Indigenous and non- Indigenous residents and hear about experiences and understandings of health and health care, but also to place such experiences in context. The principles of situated learning, prioritising the role context and participation play in constructing knowledge (Lave & Wenger, 2009) informed the design of the programme. Other studies have applied situated learning theory in health education to improve clinical, research, and professional/ethical practices (Gieselman, Stark, & Farruggia, 2000; Kanter, Wimmers, & Levine, 2007; Lindquist, Engardt, Garnham, Poland, & Richardson, 2006), yet its application to rural and Indigenous health is under-developed.

Situated Learning Theory

Situated learning theory critiques conventional views that classroom based learning is as effective as learning in context where novice learners participate in socio-cultural practices with communities to gain knowledge, skills and experience (Handley, Sturdy, Fincham, & Clark, 2006; Lave & Wenger, 2009). Key theoretical concepts underpinning situated learning include the intersection between 'legitimate peripheral participation', 'community of

practice' and identity development (Lave & Wenger, 2009). A novice learner involved in 'legitimate peripheral participation' starts, like an apprentice, on the periphery of knowledge, skills and understanding and, through 'on the job' learning and experience gradually gains mastery (Myers, 2011: 2). Building a relationship with the expert helps develop the novice's identity. The context where the individual develops such practices, including values, norms, relationships and identities fitting for that community, is explained as a community of practice (Handley et al., 2006). Academics in the BCA programme gradually built their knowledge and experience by relocating to a rural setting, interacting with the local Indigenous and non-Indigenous community, learning about what improved or undermined health from the 'experts', those in the community with lived experience and understanding of health. This approach led academics to reflect on the strengths and limitations of their own knowledge and experience, develop their identity in this field and consider how best to prepare their students to work in these settings.

Bush Camps for Academics (BCA) Programme

Academics stayed at Mount Magnet (pop 425), a remote Western Australian town 570 kilometres northeast of the state capital Perth. Mount Magnet is part of the arid Rangelands region of Western Australia characterized by low rainfall and extremes of temperature (Australian Government, 2009). Approximately one quarter of the population identify as Indigenous (Australian Bureau of Statistics, 2010) and the Indigenous language group of the region is Badimia (Tindale, 1974). Mount Magnet has an economic base of pastoralism, or raising and herding livestock, and mining. Pastoralist stations around Mount Magnet typically farm livestock such as sheep, cattle and goats over large pastoral leases. A single pastoral station is often greater than one hundred thousand acres in size.

The interdisciplinary research team coordinating the programme comprised five staff: two non-Indigenous and one Indigenous academic, one student support officer and one

Indigenous staff member, a highly respected Badimia elder from Mount Magnet, who acted as ‘cultural broker’ or bridge between the Indigenous community and the BCA team. He invited the community to participate in the project and facilitated engagement between the community and the BCA team and academics.

The research team spent several months planning the programme, visiting Mount Magnet, establishing and developing relationships with residents, health care and community service providers. The team directed the programme, provided learning opportunities for academics and co-participated in the inter-cultural learning-teaching process (Cobb & Bowers, 1999; McLellan, 1996).

Health science academics are required to teach students about values of equity and respect in Indigenous health care that include understanding the damaging trans-generational effects of colonisation on Indigenous peoples and their health and wellbeing (Tuhiwai Smith, 1999). During the BCA, academics were encouraged to critically reflect on their experience and interactions in this diverse community, compare their own pre-conceptions about rural and Indigenous health to their current experience and knowledge and consider its relevance to their teaching practice. By reviewing how their own cultural beliefs and practices about Indigenous people influenced interactions, academics developed their identity as learners in how to better prepare students to offer quality health care in these contexts. This included understanding the complexities of rural and Indigenous health practice by briefly experiencing the local environment or ‘place’ and participating with residents and health service providers in a range of activities, building relationships, learning about residents’ beliefs, norms, values, identities and practices and critically reflecting on and developing their own (Cox, 2005; Lave & Wenger, (1991) 2009 ; McLellan, 1996)

Participation in the programme was voluntary and invitations were sent by email to Heads of School in health science faculties at four universities in Perth who disseminated the

information to academic staff. Respondents self-selected with 24 acceptances and 21 participants attending (17 females and four males): two Professors/Heads of School, one Dean of Teaching and Learning, one Associate Professor, one Director of Clinical Education, three Clinical Coordinators, three Senior Lecturers, nine Lecturers and one Project Officer. Disciplines represented included nursing (4), physiotherapy (5), medical imaging (1), nutrition and dietetics (2), occupational therapy (2), speech pathology (1), Aboriginal studies (2), public health (1), health promotion (2) and international health (1).

Programme activities included:

- staying in two-person tents at a 152,000 acre working pastoral station, having flown to Mount Magnet by chartered plane from Perth (one hour) and returned via coach (eight hours) three days later
- a cultural orientation presentation on arrival by Indigenous and non-Indigenous programme facilitators about working respectfully in Indigenous health settings
- presentations and discussions with health care and community service providers on the challenges and rewards of delivering services in a rural and Indigenous community
- a barbecue lunch 'on country' for academics organized by the Indigenous community at a significant local cultural and recreation site outside town. Academics helped prepare food such as kangaroo and damper (bread) on a camp fire, discussed local events and health issues with Indigenous residents including priorities around health promotion and factors underpinning health care access. Following cultural protocol, the men talked about health issues with the male academics and the women to the female
- conversations with three pastoralist families at a remote pastoral station held on the lawn of the homestead. Family members discussed their understandings and

experiences of health and health care, how health needs were prioritised, health services accessed and social determinants of health managed, including threats to livelihood such as stock loss due to increased numbers of wild dogs.

Early in the programme academics considered how learning in situ about the health of the Mount Magnet community could inform training ‘rural ready’ graduates within their universities, thus affording a problem solving task and providing a platform to use cognitive processes and the social environment to co-construct knowledge (Billett, 1996). Through this means, knowledge gained in one social context was accessible to others; in this case to facilitate the transfer of learning from Mount Magnet to the academy. Daily debriefing sessions with small groups of academics reviewing activities and experiences facilitated collaborative learning. These sessions became a safe space to critically reflect on their responses to the environment, activities and encounters and to identify how new experiences and knowledge impacted on existing understandings of rural and Indigenous health. Academics described their responses, challenges, insights, surprises, difficulties and gaps in their knowledge. On the final morning, the research team led an extended whole group discussion in the shearing shed at the pastoral station. Academics reflected on their experiences, examined their preconceptions and their identity as learners in the area of rural and Indigenous health, and discussed the implications of what they had experienced for their teaching. Based on this discussion, plans to enhance their teaching practice were formulated.

Evaluation

Evaluation was multi-staged: a pre-programme questionnaire included demographic factors (academic position, faculty, university, gender), and open-ended questions about previous rural, remote or Indigenous health experience and programme expectations. Twenty academics completed the pre-programme survey which included questions about what they wanted to gain from attending BCA. Eighteen wanted more knowledge of Indigenous culture

and strategies to work effectively in Indigenous health, 14 wanted to know more about rural and remote issues. Nine had worked in rural or Indigenous health, four had limited experience and seven had none. Two academics identified as Indigenous.

A post-programme questionnaire was completed at the pastoral station before participants left for Perth and captured academics' responses to the BCA camp including reflections on what they learnt, enjoyed, the challenges and ideas for improvement. Twenty academics completed the post-programme survey with 17 indicating the BCA programme offered a deeper engagement with the environment and the community that augmented knowledge and understanding of rural and Indigenous health and culture, highlighted both disparities within the community related to accessing health services and the social determinants of health, including the benefits and challenges of remoteness and isolation. Four commented specifically that the experience taught them more about inter-cultural communication (for further information see Durey et al., 2009).

The research team was interested in the longer-term impact of the programme on teaching practice after academics had returned to their usual work environment. All academics attending BCA were invited to participate in semi-structured phone interviews four months later and 15 accepted. These interviews were conducted by a researcher on staff uninvolved with the BCA programme to reduce bias. All academics were asked the same questions: to reflect on the BCA experience, discuss its impact on their knowledge and understanding of rural and Indigenous health and identify any changes to teaching practice resulting from attending the programme. Interviews lasted from 20 minutes to two hours and were recorded and transcribed verbatim.

Academics were de-identified and coded as Academic 1-Academic 15 (A1-A15) to protect confidentiality. Interview transcripts were imported into a software programme (QSR NVIVO) and analysed independently by two researchers who attended the programme (AD

and IL). Information was coded into key themes and sub themes emerging from responses, noting whether the programme was effective in learning about rural and Indigenous health. The evaluation also identified the benefits and challenges of leaving the classroom and entering the 'field'. Regular meetings were held to compare findings, agree on themes and meanings attributed to academics' experiences, note similarities and differences in response patterns within and between academics, discuss and clarify discrepancies, identify subthemes, plan the next stage of analysis and interpretation. Data were regularly revisited, reviewed, summarised and interrogated whether they supported, refuted or extended situated learning theory.

Findings

Three key themes emerged from interviews: engaging 'place' and community; desire for change and translating knowledge to teaching practice.

Engaging 'place' and community

Responses showed how experiencing 'place' was a powerful factor in understanding 'a different world out there' (A11) and connecting with the concept of rural and Indigenous health:

Sometimes you read in the newspaper and go yeah yeah ... but just being there, you know, seeing and physically being able to feel the expanse of the area, the dryness and everything ... just living it, you know, breathing it and having knowledge of it. Doing a presentation is one thing but really being there is quite different, quite special and you tend to remember it more and better. (A11)

Academics strengthened this engagement by interacting with the community, participating in social activities on their country and listening to different experiences and interpretations of 'place'. It was here that academics established and built relations with local Indigenous people, pastoralists and service providers, heard their stories and the priorities and meanings they attributed to health care. This led some academics to critically reflect on their own

preconceptions of rural and Indigenous health in light of new experiences and knowledge gained from being 'on site'. Some noted similarities between Indigenous and pastoral groups in their strong connection to 'place' despite challenges of isolation, drought and distance from services. Differences between groups were also identified in the barriers attributed to accessing health care. Academics reflected on the symbolic boundaries between groups drawn by cultural and socioeconomic differences in the experiences and meanings attributed to health and wellbeing (see Cohen, 1998). They saw how each group prioritised different issues reflecting 'the nature of their social organisation and process' (Cohen, 1982: 2). Pastoralists discussed how the economic imperatives for survival in farming were compounded by reduced workforce, rising costs, outmigration, isolation, distance from health services, drought, and threats to livestock and livelihood. As their workload increased in the face of such challenges, accessing health services was often a low priority and frequently resulted in late presentation of symptoms for treatment:

They are living on the edge with very limited resources, financial and human resources. It's at breaking point, incredibly resilient people but it would take very little to fracture the system. The desperation ... I was absolutely stunned by it. I found it very challenging actually, very difficult. Emotionally challenging, ... the emotion of people and the rawness of it was what I found challenging. (A9)

The intercultural aspect of BCA added another layer to learning. Some academics found interactions with Indigenous residents enhanced and consolidated existing knowledge and understanding while for others it provided new knowledge of the social determinants of health between the two groups where cultural and socio-economic differences offered another layer of complexity.

What stood out for me was that people like the station owners can be a lot more articulate about what their issues are ... It seemed to me that Indigenous people were well and truly at the other end of the line ... it was very clear that they must be really hurting in different ways ... and I felt that for the station owners drought [was a big

factor] but I suspect for the Indigenous people the drought just adds to issues they already deal with. (A10)

An academic recently arrived in Australia with no experience in rural and Indigenous health was aware of the historical legacy of oppression left by colonisation and how negative stereotypes of Indigenous people were reinforced in the Australian media. Attending the BCA programme 'changed my perceptions, how I think' (A15) about Indigenous health and culture leading her to critically reflect on her current academic role and where she positions herself culturally when teaching her students.

Inter-cultural differences about meanings attributed to health were discussed at the community barbecue. Academics were confronted with difficult health issues facing Indigenous people, from social determinants to complex co-morbidities, access to services and slow progress in reducing health disparities between Indigenous and non-Indigenous Australians. For some, engaging with the issues this closely was 'not comfortable to ...hear people struggle ...and hear their pain ...but it's not a bad thing to hear about' and, 'was a valuable experience' (A5). The experience led this academic to reflect on the issue more deeply which resulted in rewriting the unit he was teaching on rural health.

Reducing rates of cardiovascular disease in Indigenous populations is a current national priority in health care. However, the priority for local Indigenous women was different as they discussed how the health of the local community was more important than individual needs, highlighting 'housing and jobs for our men' as integral to community health improvement. Some academics, when faced with social determinants of health, reflected on no 'quick fix' (A2) to addressing issues of health and social disadvantage. Engaging with people's stories about their experiences prompted a deeper sense of emotional connection where challenges faced by Indigenous Australians highlighted academics' frustrations, guilt and limitations to change the situation:

I think we were overwhelmed by the difficulties for the Aboriginal people in the community and then recognizing how many things were dreadful for them ...and the desire for things to change ... but as a system and as government and a nation we've failed them dismally. (A1)

Academics also heard firsthand how racist attitudes in health care delivery led to Indigenous residents not accessing services. This prompted discussion about their responsibility to better educate students about racism:

[Racism] certainly opens people's eyes and I would hope that it's something that participants have taken back with them into the classroom to actually get a conversation going with students so that if students come up against it, they can remember 'oh we talked about this and these are the things I could do' or 'this is something I need to talk about with my supervisor'. (A14)

Notwithstanding the contentious topic, many academics wanted to be agents for change despite being somewhat overwhelmed by the enormity of the problem.

Desire for change

By engaging in the physical and social world of an inter-cultural community and developing their identity as learners in rural and Indigenous health, many academics wanted to improve the situation, at the same time realizing their limitations.

All the way home in the bus we were saying 'how can we make this better' and we didn't come up with any answers. (A1)

Staying with feelings of powerlessness and frustration that 'nothing may change' created space for the group to consider the complexity of the problem and reflect on their roles and responsibilities to engage with the issue realising their limitations in providing solutions:

I think one of the positives on the last day was to see a bunch of city dwellers **not** sit around the table and say 'these are the answers'. At the last session we didn't have the answers. I suppose that is an important outcome ... the understanding that was obtained was deeper, because if you think you can come up with the answers then you've only dealt with the problem superficially. (A2)

Such responses suggest that learning about rural and Indigenous health in situ increased a sense of connection to that community, offered a realistic, more nuanced understanding of their lived experience and led to ethical questions about academics' responsibilities in this context. Hearing stories first-hand enriched academics' understanding so they were better able to grasp the multi-layered complexity of issues, see the dangers of offering quick fix solutions, become aware of tensions between different groups in the community and hear how meanings about health were understood and negotiated.

Translating knowledge to practice

Over half the academics had instigated changes to their teaching practice as a result of attending BCA including increasing rural and Indigenous health curriculum content, a commitment to 'prioritising Indigenous health and rural and remote issues in my professional programme', to making teaching units 'less conceptual --- and more practically oriented' to rewriting an undergraduate rural health unit.

(I changed) everything! To the assessments yeah, the week to week lecture format.

The structure of the guest lecturer spots, yeah. I would have liked to run it in a rural area so I would have liked to change it wholesale, but that kind of proved a little impractical with accommodation and those aspects. (A5)

Some academics acknowledged how the programme highlighted gaps in their knowledge and experience with intentions of further professional development before embarking on effectively preparing students to work in rural, remote and Indigenous health:

I wouldn't have a clue where to start to design a unit [on remote and Aboriginal health]...I think what this showed me was that I didn't have any real in-depth understanding of the issues ... It was enough to make me aware of the fact that we needed to work in this area a lot more. (A10)

Most participants who had not made changes to their teaching described how BCA validated their existing teaching practices in rural and Indigenous health.

I think I always have incorporated that into my teaching (rural and Indigenous health) but it just reinforces it, how important it is. (A12)

BCA also offered academics, some of whom had never met before, opportunities to establish relationships with colleagues, engage in cross-institutional and inter-disciplinary discussions, develop a sense of collegiality and discuss the need to want to ‘do something’:

...part of lecturers’ responsibility is to teach upcoming health professionals, students, about practice in remote areas... Exposure to [rural and Indigenous health] was quite a shock ... [it] created a lot of very vigorous conversations, some for and some against, some polarized views, ... and behind all the conversations was ‘what shall we do about this?’ (A14)

Some relationships established on the programme were ongoing four months later with social/professional meetings organised between academics to build capacity in rural and Indigenous health. Other outcomes included submitting two cross-institutional collaborative research proposals to national funding bodies to improve Indigenous health education in undergraduate health science teaching. One involving three cross-institutional health science faculties was successful and is in progress, the project focusing on collecting stories from Indigenous people about their experiences of mainstream health services to use as educational resources for students. A significant longer-term outcome in one university has been to use the BCA model to implement a programme for academics - heads of school to first year lecturers - as a strategy to address equity and diversity and promote rural and Indigenous health. The programme is now in its third year.

Discussion and conclusion

The post-programme questionnaire following BCA highlighted how a three and a half day learning experience in Mount Magnet increased academics’ knowledge of rural and Indigenous health. However, positive evaluations immediately following educational programmes are not unusual and longer term evaluations are needed to see if positive

feedback translates to practice (Durey, 2010). Findings from interviews four months later supported earlier results and reiterated the effectiveness of situated learning in this context. Taking academics out of their familiar academic environment for a short time to learn about health in the lived in social world of a rural and Indigenous community and encourage critical reflection led to a multi-faceted, inter-cultural engagement that increased knowledge, developed their identity as learners and led to changes to teaching practice.

Academics in this community of practice progressed from 'legitimate peripheral participation' - being on the periphery of knowledge about rural and Indigenous health - to a deeper, more textured understanding of residents' lived experience of health. However, our findings also support Handley et al (2006) who argued against legitimate peripheral participation automatically leading to full participation in a community of practice. Instead they asserted people bring different experiences and histories of participating in social groups that led to varied interpretations of norms in a community of practice that can complement or conflict with one another and need to be negotiated for the individual to gain a 'coherent sense of self' (Handley et al., 2006: 642). Academics interacted with residents, listened to their stories and learnt how pastoralists viewed health within a social context that encompassed the challenges of distance, isolation and limited services. Discussions about health with Indigenous residents led academics to examine diverse meanings attributed to health that affirmed, challenged or extended their own knowledge as (predominantly) non-Indigenous academics teaching Indigenous health. They heard how Indigenous residents avoided accessing health care they considered racist and prioritised preventing ill health in the community by addressing social and cultural determinants thereby disrupting the dominant biomedical approach (see Moreton Robinson, 2009) to health care focusing on treating individual illness.

Academics became aware of their own cultural filter informing how they communicated with Indigenous people, leading them to interrogate assumptions about rural and Indigenous health and confront their limitations. Decolonising or decentring hegemonic western¹ understandings (Moreton Robison, 2009) and critically reflecting on the intersection between the meanings community residents attributed to health in their narratives and academics' own western trained knowledge and experience identified the cultural filter through which rural and Indigenous health was often viewed. These findings extend situated learning theory by raising ethical questions in an inter-cultural setting about the construction and application of Indigenous knowledge through a western filter or frame of reference. Given the power differentials in the academy where academics rather than the community are considered experts, how was that knowledge represented, whose knowledge and understandings about health were privileged and how would the Indigenous communities benefit from disclosing their knowledge to academics? Were academics held to account to translate that knowledge into practice in ways that benefited the community – and their students? Extending Handley et al's (2006) argument highlights that the BCA experience challenges rather than reinforces negative stereotypes of rural and Indigenous communities. While situated learning has been used in health education to prepare graduates for real world practice in nursing (Gieselman et al., 2000), physiotherapy (Lindquist et al., 2006) and medicine (Kanter et al., 2007), a deeper engagement with the notion of respect and reciprocity in inter-cultural settings is warranted. This could be demonstrated by academics better preparing rural graduates for rural practice.

A potential limitation to our findings relates to participants' self-selection to attend BCA where it is likely they had a pre-existing interest in this area. However, subsequent programmes with senior academic staff which were non-voluntary also demonstrated similar positive responses from participants (Lin et al., 2010).

The summation of the BCA programme suggests that the principles of situated learning suit situations where complex, multi-layered levels of learning and understanding are needed. As a strategy, the BCA programme targets academics in order to improve education for students in this area and produce 'rural ready' health graduates. Learning was enhanced by academics building relationships established during the programme that offered support and cross-institutional collaboration in furthering rural and Indigenous health education. Targeting academics can sensitise hundreds of health science students annually to the realities of rural and Indigenous health and better prepare them for practice in these contexts. We contend that rural and Indigenous health education for academics is best conducted in situ. Suggested priorities for future research to prepare health science students for practice are to compare the effectiveness of conventional versus situated learning in rural and Indigenous contexts and critically examine how the higher resource needs of learning in situ (e.g. costs associated with travel and accommodation) compare with educational, and ultimately health practice, outcomes.

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Notes

¹ While the authors use the term 'western' in reference to the dominant cultural paradigm in Australia they acknowledge its contested nature in relation to other world views and its geographic anomaly in terms of 'west of what'?

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