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Title:
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Date:
2021-04-01

Citation:
Harvey, P., Nightingale, C. & Kippen, R. (2021). Rural medical students' self-reported perceptions of preparedness to practice in the Aboriginal and Torres Strait Islander Health Context. Australian Journal of Rural Health, 29 (2), pp.261-266. https://doi.org/10.1111/ajr.12721.

Persistent Link:
https://hdl.handle.net/11343/298407

Rural Medical Students' Self-reported Perceptions of Preparedness to Practice in the Aboriginal and Torres Strait Islander Health Context

Short Report

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The authors declare there is no conflict of interest.

This is the author manuscript accepted for publication and has undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/AJR.12721

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Article type : Short Report

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Abstract

Objective: To investigate perceptions of rurally based medical students' preparedness to work clinically with Aboriginal and Torres Strait Islander peoples , and to understand which learning experiences were valued by students in this context.

Design: A self-administered online survey.

Setting: A Rural Health School educating medical students in Victoria, Australia

Participants: Students in the final three clinical years of a medical degree.

Outcome measure: A questionnaire was used to indicate self-perceived preparedness to work clinically with Aboriginal and Torres Strait Islander peoples. A mixture of multiple choice and 5-point Likert scale questions were used as well as open-ended questions to allow for extended responses.

Results: A total of 106 of 253 Rural Health School students participated in the survey. One in five students self-reported feeling 'very well' or 'well' prepared to work clinically with Aboriginal and Torres Strait Islander peoples. Students reported benefiting from personal interactions with, and teaching delivered by, Aboriginal and Torres Strait Islander peoples. They had also learned much from placements outside the formal university curriculum.

Conclusion: Although students valued direct clinical contact experiences with Aboriginal and Torres Strait Islander peoples, these opportunities are limited within their university course. Creating an academic and healthcare environment that embraces Aboriginal and Torres Strait Islander knowledges and practices may assist students to develop future enhanced ways of practising

healthcare. Researchers must also be aware of the colonial lens through which much health professional education is assessed.

What is already known on this subject?

- There are problematic historical relationships between medical practitioners and Aboriginal and Torres Strait Islander peoples
- Nearly half of Australia's 2019 medical graduates indicated that they would like to work in First Nations peoples' health
- 12% of medical graduates felt inadequately prepared for clinical work in this area

What this paper adds

- Medical students valued clinical and non-clinical encounters with Aboriginal and Torres Strait Islander teachers and patients
- Students value university teaching but also acknowledge that education outside formal curriculum is important
- Educational researchers should be aware of the settler-colonial cultural lens that is often applied in study conduct

Introduction

Australian Aboriginal and Torres Strait Islander peoples' health is affected by political, social and environmental issues that have occurred since colonisation. [1, 2] Australian medical schools recognise that there are problematic historical relationships between medical practitioners and Aboriginal and Torres Strait Islander people [3], and are working to address this through curriculum change. [4]

The '2019 Medical Schools Outcomes Database' report [5] stated that 44% of final year medical students were interested in Aboriginal and Torres Strait Islander health being part of their future career. The Medical Board of Australia's '2019 Intern Survey', however, indicated that 12% of interns felt inadequately prepared to treat Aboriginal and Torres Strait Islander patients. Teaching by

Aboriginal and Torres Strait Islander teachers and clinical interaction with Aboriginal and Torres Strait Islander patients were factors that could increase preparedness. [6]

Our study aimed to a) investigate a Rural Clinical School's medical students' perceptions of preparedness to work in the Aboriginal and Torres Strait Islander Health context; and b) explore their perceptions of what would improve preparedness.

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Methods

We conducted an online survey developed from a literature review of medical education practices about First Nations peoples' health and culture . The development of the survey was informed by a literature review of medical student practices about First Nations people's health and culture, and literature describing medical student and resident preparedness to practice in a cross-cultural setting.[7-9] As none of the published surveys were fit-for-purpose; they considered vastly different contexts or medical professionals at more advanced stages of their career. We adapted these surveys to be applicable to the setting we were aiming to assess and piloted the tool with research-focussed medical students. The final tool included questions about demographics; exposure to formal teaching about Aboriginal and Torres Strait Islander health; intention to practice rurally; and open-ended responses about what students think would prepare them for practice(for example, what teaching or experiences would assist students in feeling better prepared).

Recruitment: Medical students based in a Rural Clinical School in Victoria, Australia were invited to participate. Students were in the final three clinical years (3, 4, 5) of a five-year (undergraduate) or four-year (postgraduate) degree. An invitation to participate was sent via a web link/QR code in an email. Consent was implied if students completed the questionnaire and responses were anonymous.

Analysis: Analysi s was conducted using SPSS Statistics 26™. Percentage distributions were calculated of students' demographic characteristics, exposure to teaching about Aboriginal and Torres Strait Islander health, and self-reported preparedness to work clinically with Aboriginal and Torres Strait Islander people by degree year level. Multivariable logistic regression determined the relationship between self-reported preparedness, degree year level, and other characteristics.

The responses to the open-ended questions were coded into themes by two of the authors and emergent data categories refined through comparative analysis. The analysis used the principles of grounded theory, connecting coded categories to the emerging theory.[10]

Ethics approval was granted through the Monash University's Human Research Ethics Committee (2019-20434-32781).

Results

Demographic characteristics are shown in Table 1 of the 106 of 253 invited students who responded to the survey (42%) . Sixty per cent of the sample were female, 2% identified as being of Aboriginal or Torres Strait Islander origin, 87% spoke English at home, 76% entered the degree as an undergraduate, 34% planned to have a career in rural health, and those in years 3, 4 and 5 of their degree were respectively 42%, 39% and 19%. . One in eight students reported that they wanted to focus their career on the health of Aboriginal and Torres Strait Islander p eoples.

Teaching exposure and self-reported preparedness

Ninety per cent of students had received education about Aboriginal and Torres Strait Islander peoples' health during their degree, and 78 % of students had learnt something new. Fifty-two per cent wanted more training about Aboriginal and Torres Strait Islander peoples' health in the curriculum while 3 % wanted less. Seventy-one per cent of students reported teaching had definitely or probably made them more prepared for practice but 29% still felt unprepared (see Table 2).

Figure 1 shows the percentage distribution of self-perceived preparedness to work clinically with Aboriginal and Torres Strait Islander peoples, by year level of degree. Overall, 21% of students felt well or very well prepared, while 52% felt somewhat prepared, and 27% felt somewhat or very underprepared. Those in year 5 were the most likely to feel well or very well prepared (37%) and those in year 3 the least likely (12%).

Table 3 shows the results of the logistic regression analysis of the relationship between self-perceived preparedness to work clinically with Aboriginal and Torres Strait Islander peoples, and student characteristics. A dichotomous dependent variable was used with categories 'well prepared' (well prepared/very well prepared) vs 'not well prepared' (somewhat prepared/somewhat underprepared/very underprepared). Male students and year 5 students were statistically more likely ($p<0.05$) to feel 'well prepared' than were female students and year 3 students respectively. Undergraduate/postgraduate status was not statistically significant. Students exposed to teaching about Aboriginal and Torres Strait Islander health who felt this teaching made them more prepared for clinical practice (definitely yes/probably yes) were more likely to feel 'well prepared' than those who felt the teaching had not made them more prepared (might or might not/probably not) or who had not received such teaching (no teaching/can't remember). However this relationship was not

statistically significant. Based on median sample characteristics, predicted probabilities of feeling well prepared were 19% for female students and 43% for male students, and increased from 12% for year 3 to 46% for year 5 students.

Student reflections on preparedness to work with Aboriginal and/or Torres Strait Islander peoples

Thematic analysis of the open-ended responses identified four main categories which best prepared students for practice: (1) previous educational experience in pre-tertiary years, (2) clinical experience with Aboriginal and Torres Strait Islander people, (3) teaching by Aboriginal and Torres Strait Islander peoples, and (4) teaching directly delivered within the medical course.

1. *Previous educational experience in pre-tertiary years*

Students reported studying Aboriginal and Torres Strait Islander history and culture in their pre-tertiary education if they had gone to school in Australia. Some had also spent time in Aboriginal and Torres Strait Islander communities with school or family, or through volunteering.

2. *Clinical experience during placements*

Depending on their placement, students reported having some clinical encounters with Aboriginal and/or Torres Strait Islander peoples which made them feel better prepared for practice.

> *I've done a clinical placement in an (Aboriginal Health Service) and I think it highlighted issues that arise more commonly in Aboriginal and Torres Strait Islander communities and with health care.*

The John Flynn Placement Program, a rural immersion program offered to medical students and organised through rural workforce agencies, was mentioned as a rich learning opportunity [7].

> *Eight weeks of placement at (Aboriginal medical services) via John Flynn placement program, learnt at least 95% of what I know about Aboriginal and Torres Strait Islander health.*

Students stated that they would appreciate more clinical and personal opportunities to work with Aboriginal and Torres Strait Islander peoples:

> *(We need) more clinical or practical experience possibly doing a placement at some point, rather than a lecture style presentation.*

3. *Teaching by Aboriginal and Torres Strait peoples*

Students expressed the need to have more teaching, clinical and non-clinical, directly from Aboriginal and Torres Strait Islander peoples:

> *It'd be beneficial to get a patient's perspective of their experience with the healthcare system (good and bad) and what future doctors should work on.*

4. *University teaching*

Many students appreciated the cultural awareness educational sessions and other non-clinical curricula delivered from the university.

> *…there can often be fear of hospitals and western medicine, as many Aboriginal and Torres Strait Islander people (sic) have associated hospitals with dying*

Some students stated that these educational sessions plus their own experiences outside of university made them adequately prepared for work with Aboriginal and Torres Strait Islander peoples, and that that more education about Aboriginal and Torres Strait Islander health and culture isn't needed.

> *Honestly with the way medicine is taught it would be very difficult to get people to care more … other than to increase its weightage in assessments.*

> *… students should be encouraged to speak to (Aboriginal and Torres Strait Islander peoples) outside of medicine in order to be able to ask questions and better educate themselves*

There were remaining areas of student concern: (1) practising in a culturally safe way, (2) appropriate communication, and (3) clinical care of Aboriginal and Torres Strait Islander peoples.

1. *Cultural Safety concerns*

Many students stated concerns they would be culturally insensitive in their encounters with Aboriginal and Torres Strait Islander peoples, causing offence.

> *I feel unprepared for clinical interaction with people of Aboriginal and Torres Strait Islander background who are suspicious of, or untrusting of, the medical profession.*

They also stated that they were unsure about the role of the Aboriginal Health Liaison Officer.

2. *Communication*

Linked with participants' concerns about providing culturally safe care were apprehensions about appropriate communication:

> *(Knowing) correct ways to address patients and being mindful of cultural aspects that I may not even be aware of due to lack of training.*

3. *Clinical Care*

Many participants were concerned about aspects of clinical care for Aboriginal and Torres Strait Islander peoples, and the influence of social and behavioural determinants of health.

Discussion

Results showed that self-reported preparedness to work clinically with Aboriginal and Torres Strait Islander peoples increases as students progress through their clinical years and is influenced by previous learning history, encounters with Aboriginal and Torres Strait Islander peoples outside of formal education, and clinical experience with Aboriginal and Torres Strait Islander peoples.

Students wanted increased placements with Aboriginal and Torres Strait Islander peoples. While studies have shown that placements focussed on Aboriginal health increased understanding of appropriate healthcare [1], and that cultural immersion enhances cultural awareness [12] placement opportunities remain limited. Students also wanted more educational time with Aboriginal and Torres Strait Islander academics, yet in 2020 there were only 480 Aboriginal and Torres Strait Islander academics across Australian universities. [13]

Understanding the healthcare needs of Aboriginal and Torres Strait Islander peoples depends on realising the multigenerational impact of colonisation, and post-colonisation effects. [14] Our study is limited in that it did not explore the extent to which colonial discourse and other bias is addressed in the current curriculum. [15] Incorporating Aboriginal and Torres Strait Islander pedagogies into curricula, actively examining conceptual frameworks of education and healthcare, and applying scrutiny of the cultural filters within which medical education is taught will assist in broadening cultural perspectives. [16] This may assist in alleviating the perception reflected in the data that Aboroginal and Torres Strait peoples' health is a topic to be taught rather than an educational opportunity to shift the colonial framework lens through which healthcare is often regarded, and increase understanding of the impact of bias. This research joins other papers that investigate medical student self-rated knowledge about their learning. [17-20] This project uniquely focuses on a

Victorian cohort of medical students within a Rural Clinical School (and so results may not be generalisable) but was conducted with students in the position of 'knower'[15], that is, assuming students *know* whether they were prepared for practice. Wilson et al (2020) state that the student as 'knower' places Indigenous people as 'known'.[15] Researchers into health professional education (including the authors) need to be aware of these settler-colonial cultural concepts through which much research is completed.

Conclusion

Medical student perceptions of preparedness to provide culturally safe care for Aboriginal and Torres Strait Islander peoples is influenced by previous and current education about culture, history, and experiences of healthcare for Indigenous people. While cultural and clinical immersion is preferred, practicalities limit opportunities for students. Creating an academic environment that embraces Aboriginal and Torres Strait Islander knowledges and practices, and ensuring research with Aboriginal and Torres Strait Islander peoples is underpinned by Indigenous knowledges , may develop enhanced ways of educating medical students.

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Table 1. Logistic regression: How prepared do you feel to work clinically with Aboriginal and Torres Strait Islander peoples? (well prepared [21] VS not well prepared [81]) by student characteristics, n=102

Student characteristics	Odds ratio	Confidence interval	p-value	Predicted probability*	n
Female (ref)	1.00			0.187	40
Male	3.32	(1.06 - 10.41)	0.040	0.433	61
Non-binary^	--	-- --	--	--	1
Year 3 (ref)	1.00			0.124	42
Year 4	1.62	(0.45 - 5.80)	0.457	0.187	41
Year 5	5.96	(1.27 - 28.06)	0.024	0.458	19
Postgraduate student (ref)	1.00			0.072	25
Undergraduate student	2.96	(0.57 - 15.22)	0.195	0.187	77
Teaching made you feel more prepared: yes (ref)	1.00			0.187	65
Teaching made you feel more prepared: no	0.34	(0.09 - 1.33)	0.122	0.073	27
No teaching/can't remember	0.28	(0.03 - 2.56)	0.260	0.061	10

*Based on median sample characteristics: year 4, undergraduate student, female, teaching made you feel more prepared

ref: reference category

^Values not reported.

Table 2: Exposure to teaching about Aboriginal and Torres Strait Islander Health

Questions	**N (%)**	**Total responses**
Have you been exposed to any teaching about Aboriginal and Torres Strait Islander Health in your current degree?		
Yes	95 (90.5)	105
No	4 (3.8)	
I can't remember	6 (5.7)	
What format did this teaching take (multiple answers allowed)?		
Knowledge/history online at University	2	
Knowledge/history sessions at University	8	
Within a PBL/ICL	2	
Training other than at University	27	
Did this exposure teach you anything new?		
Yes	72 (78.3)	92
No	20 (21.7)	
Do you feel that this teaching has made you feel more prepared for clinical practice?		
Definitely Yes	21 (22.8)	92
Probably yes	44 (47.8)	

Might or might not	20 (21.7)	
Probably not	7 (7.6)	
Do you think that there should be more teaching about Aboriginal and Torres Strait Islander Health?		
Yes	53 (52.0)	102
It's about right	46 (45.1)	
I think there should be less	3 (2.9)	
Have you had experiences outside the University that have helped you learn about Aboriginal and Torres Strait Islander health?		
Yes	43 (42.6)	
No	58 (57.4)	101

Figure 1. Percentage distribution of students by year level and self-perceived preparedness to work clinically with Aboriginal and Torres Strait Islander people, n=102

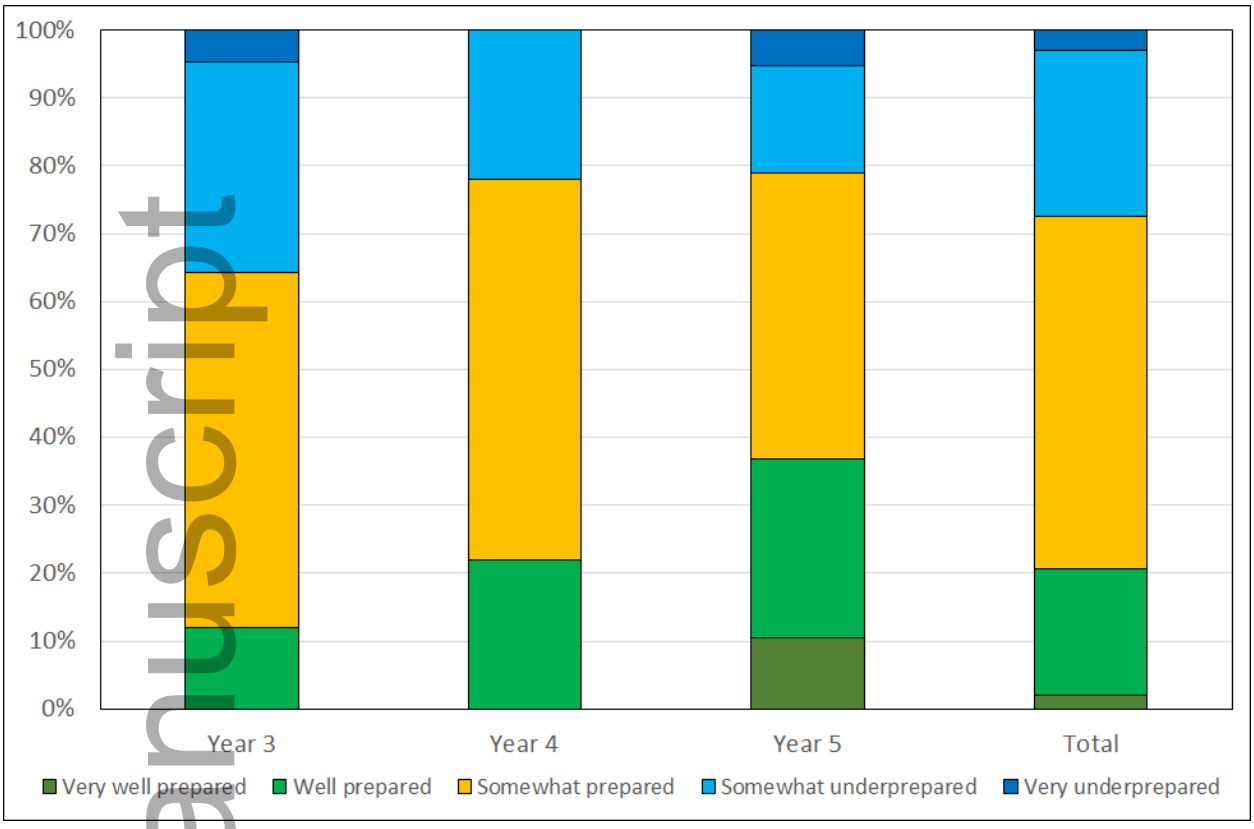

Table 3. Logistic regression: How prepared do you feel to work clinically with Aboriginal and Torres Strait Islander people? (well prepared [21] VS not well prepared [81]) by student characteristics, n=102

Student characteristics	Odds ratio	Confidence interval	p-value	Predicted probability*	n
Year 3 (ref)	1.00			0.099	42
Year 4	1.76	(0.51 - 6.10)	0.373	0.162	41
Year 5	4.67	(1.08 - 20.18)	0.039	0.339	19
Postgraduate student (ref)	1.00				25
Undergraduate student	2.89	(0.58 - 14.39)	0.195		77
Male (ref)	1.00				40
Female	0.36	(0.12 - 1.07)	0.067		61
Non-binary^	--	-- --	--		1

*Based on modal characteristics of the sample: undergraduate student and female

ref: reference category

^Values not reported.