ORIGINAL RESEARCH

A qualitative exploration of health student perspectives of rural and remote placements during the early stages of the COVID-19 pandemic

Lyndal Sheepway PhD[1] | Belinda Jessup PhD[2] | Tegan Podubinski DPsych(Clin)[3] | Susan Heaney PhD[4] | Jodie Bailie PhD[5] | Ha Hoang PhD[2] | Lisa Bourke PhD[3]

[1]La Trobe Rural Health School, La Trobe University, Wodonga, Victoria, Australia

[2]Centre for Rural Health, The University of Tasmania, Launceston, Tasmania, Australia

[3]Department of Rural Health, The University of Melbourne, Shepparton, Victoria, Australia

[4]The University of Newcastle Department of Rural Health, The University of Newcastle, Port Macquarie, New South Wales, Australia

[5]University Centre for Rural Health, The University of Sydney, Lismore, New South Wales, Australia

Correspondence
Lyndal Sheepway, La Trobe Rural Health School, La Trobe University, P.O. Box 821, Wodonga, Vic. 3689, Australia.
Email: l.sheepway@latrobe.edu.au

Abstract

Objective: To explore health student perspectives of rural and remote placements during the early stages of the COVID-19 pandemic.

Setting: Australia.

Participants: Allied health, nursing and medical students with a planned rural or remote placement between February and October 2020.

Design: Semi-structured interviews ($n = 29$) with data thematically analysed.

Results: Five main themes emerged from student experiences: (1) 'Do we go? Don't we go? Like how much risk is involved?' related to student concerns regarding acquiring and transmitting COVID-19 on placement; (2) 'We are sort of just standing at the door trying to watch' encompassed student perceptions of missed clinical learning opportunities in response to health and safety measures related to COVID-19; (3) 'I, as a student, sort of fell under the radar' related to student perceptions of suboptimal supervision; (4) 'It was a bit more difficult to engage with that wider community' recognised student feelings of social disconnection and their lack of opportunity for community immersion; and (5) 'We felt like we got something that is more than we expected' emerged from student reflections on training during the pandemic and alternative placements (virtual, simulated and non-clinical) that exceeded expectations for learning.

Conclusions: Although most students were willing and able to undertake their rural or remote placement in some form during the early stages of the pandemic and identified unanticipated learning benefits, students recognised lost opportunities to build clinical skills, become culturally aware and connect with rural communities. It remains unknown how these rural and remote placement experiences will impact rural intention and in turn, rural workforce development.

1 | INTRODUCTION

Recruitment and retention of a skilled medical, nursing and allied health workforce are essential for the health of rural and remote communities.[1] Quality rural and remote placements have been found to be an important conduit for recruitment to the rural health workforce.[2–6] University Departments of Rural Health (UDRHs) are funded through the Rural Health Multidisciplinary Training Program to facilitate rural and remote placements Australia wide. In 2019, UDRHs facilitated rural and remote placements for 16 500 nursing, medicine and allied health students, a notable 26% increase from the previous year.[7] Although further growth in placements was anticipated in 2020, the onset of the COVID-19 pandemic early in the year heralded immediate, widespread and unprecedented challenges to facilitating quality rural and remote student placements.[8] In a national study of UDRH-facilitated placements during the early stages of the pandemic, the vast majority (80%) of placements were found to have been able to continue in some format, on-site, virtually or through non-clinical or simulated placement experiences.[9] However, regardless of placement design, most students (80%) reported a raft of changes to their placements because of the pandemic restrictions, including changes in rural and remote locations, placement sites, methods of service delivery, supervision and community engagement.[9]

Although other research has examined rural placement changes during the pandemic, these studies have largely described strategies aimed at minimising disruption to student learning and the provision of services to rural and remote communities.[10–13] In particular, studies have focused on examining virtual placements and telehealth service delivery[11,13,14], with students largely achieving learning outcomes.[11] Medical student perspectives about changes to placements during the pandemic have been sought via survey with most students reporting negative impacts on the quality of their learning.[15] This included supervision and missed opportunities for clinical procedures and increased mental health challenges including isolation and reduced social support.[15] However, beyond Martin et al.'s study, research is lacking regarding broader, in-depth student perspectives about rural and remote placement experiences during the pandemic, including allied health and nursing student perspectives, and those from students fortunate to be able to continue

What is already known on this subject:

- Quality rural and remote placement experiences are key in facilitating graduate desire for employment in rural and remote areas of Australia
- Rural and remote placements were impacted by the COVID-19 pandemic, resulting in widespread cancellation and adaptation of placements to accommodate lockdown measures and health and safety considerations

What this study adds:

- Although students were concerned about contracting and transmitting COVID-19, students perceived rural and remote locations to be safe in the early stages of the pandemic and were, therefore, willing to attend placement sites
- Students perceived that opportunities for clinical and cultural learning were reduced by efforts to keep students and the community safe during the pandemic, together with reduced supervisory attention to student training
- Students reported feeling socially isolated and physically disconnected from fellow students and the rural and remote community
- Students identified the development of unexpected transferrable skills from alternative placement models including organisational and communication skills and technological literacy

on-site placements in rural and remote locations. In-depth understanding of students' perspectives is important to reflect upon, given the association between placement experiences and subsequent rural practice intention.[1,16]

This study, therefore, aims to present a qualitative exploration of health students' perceptions of rural and remote placements during the early stages of the pandemic. It further explores qualitative data from the national study of UDRH-facilitated placements, adding to the general findings presented previously by Hoang et al.[9] The findings are expected to further inform UDRHs, universities, health services, the Australian Rural Health Education Network (ARHEN) and governments about rural and

remote training considerations for health students during pandemic circumstances.

2 | METHODS

2.1 | Design

Semi-structured interviews were conducted as part of a convergent mixed-methods study that sought to understand the breadth and depth of experiences of nursing, allied health and medical students who had a scheduled rural or remote placement in 2020 (see Hoang et al., 2022).

2.2 | Recruitment

Recruitment methods have been previously described.[9] Briefly, students with a scheduled placement facilitated by one of the 16 UDRHs across Australia between February and October 2020 were emailed after the date of the scheduled placement to invite their participation in the study. Within the email invitation was a link to an online survey about the impact of COVID-19 on their rural and remote placement. As described by Hoang et al.,[9] a total of 1505 students completed the survey and 145 provided their contact details indicating they were interested in participating in a further interview.

2.3 | Data collection

Of the 145 interested students, 38 were randomly selected to be contacted to be interviewed, 6 of them did not respond and 3 declined to be interviewed. The remaining 29 students were interviewed individually via Zoom web conferencing by 1 of 5 members of the project team (BJ, BH, TP, LS and SH). Each of these team members attended a training session led by an experienced qualitative researcher (LB) prior to conducting interviews, which offered the opportunity to pilot the interview schedule and ensure consistency in interview techniques and questioning approaches. All members of the research team were employed by UDRHs across Australia and represented a wide range of health discipline backgrounds. Interviews were organised so that the interviewer was not affiliated with the UDRH which facilitated the student's placement. Students were asked about their planned rural and remote placement, the pandemic and other experiences relating to their study, work and life during 2020 (Appendix A). Interviews ranged from 40 to 60 min in length. No repeat interviews were conducted with individual interviewees. All interviews were audio-recorded and transcribed verbatim using on-line transcription software (Otter.ai). Transcripts were checked for accuracy by the interviewer and then deidentified by allocating a numeric code to denote participant numbers and removing the names of locations and placement facilities. Further review of the transcripts by interviewees was not conducted considering the potentially limited value added, and the increased possibility of losing valuable data captured at a specific point in time, given the rapidly evolving pandemic situation.[17]

2.4 | Data analysis

Interview data were subjected to an iterative process of thematic analysis as described by Braun & Clarke.[18] Familiarity with transcripts had already been achieved through the multiple readings by members of the research team together with inductive coding of the data using NVivo (version 12) as part of the initial qualitative analysis conducted for the larger mixed methods study.[9] Multiple members of the team read, reviewed and coded transcripts, discussing their approaches and findings. As initial codes had already been developed, the second author (BJ) subsequently reviewed all codes generated from this initial analysis and identified those which reflected student perspectives of rural and remote placements. Through regular reflexive discussions, relevant initial codes were collapsed into preliminary themes and subthemes, which were then modified and agreed upon through further iterative conversations, firstly between the first and second authors (LS and BJ), and then with the broader research team, to ensure they accurately reflected student perspectives.[19] Verbatim quotations were used to exemplify the themes and subthemes identified.

3 | RESULTS

Twenty-nine students were interviewed, with most students identifying as female (72%), studying allied health (52%) or nursing (48%), over 25 years of age (62%) and in their third or final year of study (69%) (Table 1). Students reported a range of placement changes in response to the pandemic, including cancellation of placements, changes to another location or health service, or redesign to a virtual, simulated or non-clinical placement experience (Table 1). Collectively, five themes and ten subthemes emerged from the interview data (Table 2).

TABLE 1 Placement experiences of study participants (n = 29)

#	Age	Gender	Discipline of study	Year level	State	Did placement continue	Placement type	Placement details
1	<25	F	Nursing and midwifery	3	VIC	Cancelled	–	Student opted out of placement due to being unable to afford accommodation
2	>25	F	Nursing	3*	VIC	Yes	On-site (2 weeks)	Two rural placements; first, the student was unable to attend the final week due to schools shutting and being unable to access childcare; the second placement was cancelled entirely
3	>25	M	Nursing	3*	QLD	Yes	On-site (4 weeks)	No changes
4	>25	F	Nursing	3*	Vic	Cancelled	–	Placement cancelled by University
5	>25	M	Dietetics	1	VIC	Yes	On-site (9 weeks)	COVID hit the middle of placement, so last 4 weeks unable to interact with the community to complete project work
6	<25	F	Occupational therapy	4*	QLD	Yes	On-site (10 weeks)	Covid hit at the end of 6 weeks; remained on-site by choice to complete placement
7	<25	F	Occupational therapy	3	NSW	Yes	Virtual Placement (7 weeks)	Placement converted into a virtual experience as not allowed to travel
8	>25	F	Nursing	3*	QLD	Yes	On-site (4 weeks)	COVID hit at the commencement of placement, but placement went ahead unchanged
9	<25	F	Social work	3	WA	Yes	On-site (6 weeks) Virtual (10 weeks)	Placement organisation reverted to working from home arrangements; students had to return home to complete placements (project work) working from home after spending 6 weeks on-site
10	<25	F	Nursing	3*	WA	Cancelled	–	Placement cancelled by University and health service
11	>25	M	Health science	3*	WA	Yes	On-site (4 weeks)	Original rural/remote placement cancelled but was able to undertake a substitute placement shortly after at a different rural/remote location
12	>25	F	Pharmacy	3	NSW	Cancelled	–	Placement cancelled by the student due to financial hardship
13	>25	F	Speech pathology	4*	VIC	Yes	On-site (4 weeks)	Placement cancelled by University after 4 weeks; Student had to complete remaining 2 weeks at the internal university clinic
14	<25	M	Nursing	2	NSW	Yes	On-site (2 weeks)	Placement went ahead unchanged
15	>25	F	Nursing	2	NSW	Cancelled	–	University cancelled both rural placements
16	>25	F	Social work	4*	VIC	Cancelled	–	Rural placement cancelled and swapped with metropolitan research placement

TABLE 1 (Continued)

#	Age	Gender	Discipline of study	Year level	State	Did placement continue	Placement type	Placement details
17	>25	M	Nursing	2*	VIC	Yes	On-site (4 weeks)	No changes
18	<25	F	Nutrition and dietetics	4*	NSW	Yes	On-site (3 weeks) On-site (10 weeks)	First placement was cut short by 1 week; second placement moved to an alternative smaller hospital that would allow for social distancing adherence in office spaces
19	>25	F	Occupational therapy	1	NSW	Yes	Simulation (1 week)	Reduced from 2 weeks to 1 week
20	>25	F	Nursing	3*	SA	Yes	On-site (8 weeks)	No changes
21	>25	F	Podiatry	3*	NSW	Yes	On-site (4 weeks)	Placements went ahead as scheduled (these were second semester so later in the year)
22	>25	F	Nursing and paramedicine	4*	QLD	Cancelled	–	Remote placements in NT were cancelled due to border closures and community protections
23	<25	F	Medicine	3	ACT	Cancelled	–	University cancelled 6-week remote placement in NT – no alternatives provided
24	<25	F	Nursing	2	NSW	Cancelled	–	University cancelled remote placement and student was sent to metropolitan hospital instead
25	>25	M	Medicine	2	QLD	Yes	On-site (3 weeks)	Rural placement went ahead as planned at the last minute
26	>25	M	Nursing	2	QLD	Yes	On-site (3 weeks)	No changes
27	>25	F	Medicine	3	NT	Yes	On-site (5 months)	Communities were locked down; unable to travel in and out of location (or face quarantine)
28	<25	F	Nursing	1	NSW	Yes	On-site (2 weeks)	Rural placement offered after metropolitan placement was cancelled
29	<25	F	Nursing	3*	QLD	Yes	On-site (4 weeks) On-site (4 weeks)	Completed two rural/remote placements without any changes

*Final year of study.

TABLE 2 Themes and subthemes

Theme	Subtheme	Theme meaning
1) 'Do we go? Don't we go? Like how much risk is involved?'	(i) Contracting COVID-19 (ii) Transmission of COVID-19	Related to student concerns over the possibility of both contracting and transmitting COVID-19 within their rural and remote placement setting
2) 'We're sort of just standing at the door trying to watch'	(i) Low patient caseload (ii) Reduced opportunities to provide direct patient care (iii) Lost opportunities to become culturally aware	Related to student perspectives of lost clinical learning opportunities at the expense of health and safety considerations related to the pandemic
3) 'I, as a student, sort of fell under the radar'	(i) Suboptimal supervision	Encompassed student perceptions of being inadequately supported by supervisors on placements
4) 'It was a bit more difficult to engage with that wider community'	(i) Social disconnection (ii) Limited community engagement	Encompassed students' feelings of loneliness and isolation due to limited opportunities for social connection and community engagement while on placement
5) 'We felt like we got something that is more than we expected'	(i) Training in a pandemic (ii) Unanticipated learnings from alternative placements	Encompassed student reflections of gratitude for being able to continue with placements despite the pandemic and the value added by their unique training experiences

3.1 | 'Do we go? Don't we go? Like how much risk is involved?'

3.1.1 | Contracting COVID-19

Students on placement when the pandemic began indicated that they felt safe in their rural or remote location due to their geographical isolation from the first confirmed cases. Students, therefore, expressed disappointment at the cancellation of placements when they believed they could have safely continued training at their rural or remote location.

> There were no confirmed cases in [location] ... just because everything was so chaotic on the east, we had to come home. We were given 24 h to pack our bags and get the next flight out. We felt so helpless and we just wanted to continue our work in [location] ... I felt safe the whole time.
>
> (#13, speech pathology)

As the pandemic progressed, students reported being willing to undertake their rural or remote placement because they perceived locations to be safe given the absence of locally acquired cases. One student described having their rural placement cancelled and replaced with another in a metropolitan hospital with a dedicated COVID-19 ward; this student felt that their rural placement would have been a safer option

given that there were no reported cases in that location, and they would not have had to use public transport to travel to and from the placement site.

> I was supposed to be going to a mental health inpatient facility in [rural location], instead I was sent to a [metropolitan city] hospital drug ward ... from a selfish perspective, it felt more at risk to myself being in this packed hospital in [metropolitan city]. Obviously, there are concerns for the patients in [rural location], like they should come first, really their health, but just thinking about me, technically, it's probably more risky to be in this [pandemic] in an urban city. I was taking the public transport daily.
>
> (#24, nursing)

Although students largely felt safe in their rural or remote locations, some recognised the risk of contracting COVID-19 given that procedures had not yet been introduced to manage potentially infectious people. Some placement settings could not properly accommodate COVID-19 cases, whereas other placements struggled to provide adequate personal protective equipment (PPE) and education to students regarding infectious disease management. Students also identified the inherent risk of contracting COVID-19 due to shared accommodation while they were on placement.

It was very concerning that we probably weren't changing our masks as often as we should and didn't really have the access to the amount or the proper PPE that we really needed ... At one stage, I wore I think an apron when I was going into like an isolation room because they just had no full sleeve gowns.

(#29, nursing)

3.1.2 | Transmission of COVID-19

Although students expressed concerns about contracting COVID-19 on placement, few described being worried about their own health. Rather, students were concerned that if they caught COVID-19, they could unknowingly transmit it to others upon returning home from their rural or remote locations. This was especially the case for students who lived in share houses or with their elderly parents or relatives. Equally, students were also worried about causing an outbreak of COVID-19 by travelling to their rural or remote placement site from an area with known community transmission.

I don't think we thought we were going to get sick. I think our main concern was catching it and transmitting it in the community.

(#27, medicine)

This was a particular concern for students who were working while studying in health care or retail settings, and who perceived they were at greater risk of exposure to COVID-19. This resulted in some students opting to cancel their placement, or alternatively, ceasing employment for a period prior to placement.

All three of us work in health care here, then we're going to go out there. How do we know that we're not carrying something that is going to make other people sick? So it's traveling out somewhere when we feel that we shouldn't travel, but also feeling like we have to do that because it's a requirement. So... Do we go? Don't we go? Like how much risk is involved? Because you just don't know.

(#12, pharmacy)

3.2 | 'We're sort of just standing at the door trying to watch'

3.2.1 | Low patient caseloads

Students described how placement sites reduced non-essential services to preserve resources for potential COVID-19 outbreaks, which saw the closure of beds and cancellation of elective surgeries. Students also described that outpatient clinics and community outreach programs were cancelled. Furthermore, students experienced widespread cancellation of appointments by members of the community who were seeking to limit their potential exposure to health facilities. Collectively, these health and safety measures directly impacted clinical learning by reducing the number of patients available for management.

I'd say we reduced the amount of people we were seeing ... it wasn't that we weren't wanting to see people, we were trying to get them in. It was the people themselves who were cautious and we had a couple of people who declined coming in to see us because of [the pandemic] ...

(#6, occupational therapy)

Although students recognised some benefits to low patient numbers, they were more concerned that they did not experience the reality of a busy clinical environment.

It was a lot quieter and there was a lot less going on than what would otherwise have been ... [My placement] was impacted in that you didn't get a true sense of what that ward would be like in normal circumstances, the pace, the variety, the patients.

(#2, nursing)

3.2.2 | Reduced opportunities to provide direct patient care

Students described that social distancing requirements were strictly adhered to at placement sites, which further reduced opportunities to provide direct patient care. When clinical rooms were unable to physically accommodate students in addition to supervisory staff, students reported being left to observe procedures from doorways.

They're limiting the amount of people exposure into the rooms and things like that ... a nurse will go in and do a procedure ... [and] we're sort of just standing at the door trying to watch what they're doing but not getting real hands on experience. So that's a little bit of a hiccup.

(#17, nursing)

Almost all students reflected on the role of PPE in allowing physical patient interaction. However, even with PPE, efforts

to minimise student risk meant some patients were off limits for students, especially those with respiratory symptoms. One student emphasised that with the correct safety precautions, students could have engaged in more direct patient care which would have benefited both student learning and health care provision in rural and remote communities.

> There is really good experience that can come from having to be on that front line where you do have to do things that we would normally do. I'd like to learn how to do all those procedures and also some of the things that we cancelled are really important things for people's health ... I don't really want to sit on the sidelines and get through a placement and feel like I've learned less and also helped less which is sometimes the case.
>
> (#14, nursing)

Students who pivoted to virtual, simulated or non-clinical placements felt disadvantaged compared to students with on-site placements given their lack of real-world interaction with rural or remote patients.

> I wanted to build up my clinical skills ... that was the main thing that I missed out on.
>
> (#16, social work)

Although students on virtual placements felt fortunate to be able to interact with patients, they described the limitations of telehealth in developing their clinical assessment skills, supporting their ability to build relationships with clients and their families and allowing for naturalistic observation and engagement with clients and other professionals.

> There's a lot of components to a child's learning in the classroom and we weren't able to see that, so that's something that we definitely thought affected our therapy. And ... we weren't able to interact with the parents at all. Even with the teachers, we didn't see them as much, whereas if we went to the schools, we would see them every single day and interact with them every single day.
>
> (#7, occupational therapy)

3.2.3 | Lost opportunities to become culturally aware

Although students described an overall loss of patient interaction, several students raised specific concerns

regarding lost opportunities to provide health care to First Peoples. This resulted from the immediate restriction on engagement with Aboriginal and Torres Strait Islander people and communities to prevent COVID-19 transmission. Students also reported that scheduled cultural awareness activities were also abandoned.

> I was quite disappointed about the [cancellation of] homeland visits because they are really unique communities and it was a pretty special opportunity to be invited into that space and something I may not ever get to do again ... I didn't get kind of the depth of cultural [awareness] that we would have otherwise.
>
> (#27, medicine)

3.3 | 'I, as a student, sort of fell under the radar'

3.3.1 | Suboptimal supervision

Sudden staffing changes in response to the pandemic saw some students without a supervisor, and others with supervisors who were unprepared. Students perceived that supervisors, like most other health care workers at placement sites, were stressed and anxious in response to the unfolding pandemic. As described by one student:

> It was definitely an extremely tense environment because there was so much uncertainty.
>
> (#16, social work)

Changes to pandemic response measures compounded supervisors' workloads, resulting in their attention being diverted away from student training. Students subsequently reported failing to receive adequate placement orientation, direct supervision of clinical interactions as well as general support and attention to their learning needs.

> I didn't get a pretty thorough orientation. I guess it was sort of this is a quick little walk around of where things are, there is the fire exits, there's your buddy ... because there was so much happening and so many massive things that needed to be dealt with on that day ... it just meant that I, as a student, sort of fell under the radar a little bit ...
>
> (#3, nursing)

Students with virtual placements who received remote supervision also described supervisory concerns after

experiencing the inherent limitations of communicating with supervisors via email and the frustration of being unable to receive immediate feedback on their work. Importantly, students described the increased support they sought from fellow students to mitigate that supervisory gap.

> It was difficult trying to communicate to our [supervisor], making sure we were on the right track or [ask] questions ... just kind of like confirmation that you could easily get when you pass through the office which we weren't getting at home. And then our supervisor was really busy for a few weeks where we probably didn't have as much contact as we were meant to. It was just a really different style. I think the students who came home from [location] were a bit close afterwards ... [we] supported each other where we couldn't get that confirmation from our staff members.
>
> (#9, social work)

3.4 | 'It was a bit more difficult to engage with that wider community'

3.4.1 | Social disconnection

Being away from family and friends meant students relied on new relationships in the rural or remote community to support them. However, the enforcement of social distancing measures in both placement sites and accommodation facilities, combined with the lockdown, saw the loss of opportunities to foster social connections with other students and clinicians, which led to feelings of loneliness. Students in university-provided accommodation were often separated, lessening peer support and social connection with others on placement in the same town.

> The first couple of weeks before everything shut down, we were doing quite a lot out in the community ... we were getting together for meals, getting together down at the pub ... and when social distancing came in, that obviously all had to stop because... all of the pubs and the restaurants closed down which ordinarily wouldn't be a problem for a couple of weeks, but when you're away from everyone that you know, like that was a real comfort ... if you're feeling a little bit lonely or missing home, you can get together and do something socially with people that you've just met and are getting to know. And that was quite fun

in the first couple of weeks, so I sort of felt a little bit lonely after that.

> (#8, nursing)

3.4.2 | Limited community engagement

Limited engagement with rural and remote communities was a frequently mentioned disappointment among students who were able to continue with their placements after the onset of the pandemic. Where students had their placement adapted to a simulated or virtual experience, they lamented being unable to physically interact with or subsequently contextualise the rural or remote community they were working in. This proved disappointing to some students who had never experienced life in a rural community before.

> Did I feel like I was on a rural placement? No, I didn't ... I was here in the city and I was just accessing them from the computer. I wasn't able to see the how they live their life, how they interact with the community ... in terms of learning how to conduct therapy in a paediatric setting, I got all that. Yes. But interacting with a rural community? I didn't get that.
>
> (#7, occupational therapy)

Those students able to attend placement sites also reported being unable to immerse themselves in the local community given that local attractions were closed due to lockdown restrictions and travel being discouraged.

> That was probably one of my greatest disappointments going out there because I was really looking forward to that community engagement, but because of all the coronavirus stuff, everything was shut. [I] couldn't go to the pub which is where everyone is on every night in a rural community. So it was a bit more difficult to engage with that wider community outside of the hospital context ...
>
> (#3, nursing)

3.5 | 'We felt like we got something that is more than we expected'

3.5.1 | Training during a pandemic

Even though students were drawn to comment on the negative aspects of their rural and remote placements,

they also recognised the unprecedented and challenging situation for universities and health services to continue offering placements during the early stages of the pandemic. Students, therefore, expressed gratitude for still being able to attend rural and remote placement sites, with one student highlighting the unique learning opportunity of seeing how a rural health facility responded to a pandemic situation.

> It's not many placements you get to say you went on a placement and trained during a global pandemic so I thought of it as a learning opportunity ... it was good to see how a rural facility like that reacts to that kind of thing.
>
> (#3, nursing)

3.5.2 | Unanticipated learnings from alternative placements

Students with virtual, simulated or non-clinical placements also reported overcoming their initial disappointment at the loss of their on-site placement after recognising unexpected benefits to their learning from their alternative placement experiences. Following a simulated placement, one student described how they felt more confident and better prepared for future on-site placement experiences.

> It was all really relevant and really educational ... and we probably learned a lot of stuff that people didn't get to learn on placement ... we feel really confident to go on placement now.
>
> (#19, occupational therapy)

Other students on non-clinical and virtual placements also reported experiencing unanticipated improvement in their organisational and written communication skills which they ultimately felt would improve their employability. Furthermore, students acknowledged growth in their technological awareness and felt well-placed to use technology in their future work to improve productivity and support rural health service delivery. This led students to realise that their alternative placements had supported their professional development, despite their initial hesitations.

> At first I was like, 'what do you mean we're still doing this placement [virtually]?' and after I finished, I felt like I'd actually learned a lot of things ... I'm really familiar with zoom functions and organising my own schedule ... and [we] were actually interacting with clients

in a covid pandemic where [other] students were getting cancelled from their placement. We felt like we got something that is more than we expected.

> (#7, occupational therapy)

4 | DISCUSSION

Adding to the existing literature on rural and remote clinical training during the early stages of the pandemic, this study focused on the qualitative exploration of nursing, medicine and allied health student perspectives of rural and remote placement experiences. Positively, students viewed rural and remote locations as safe and were willing to continue their placement experience despite the pandemic. Students also recognised the inherent challenges of undertaking placements given pandemic circumstances and were therefore grateful for their learning experiences and the rural and remote services willing to host them. However, students did share concerns regarding the loss of opportunities to develop both clinical and cultural competency. Furthermore, students also felt they were unable to experience the social and community connections typical of rural and remote placements. Collectively, these perspectives raise concerns that aspects that define 'quality' rural placements may have been compromised.[20]

Not unexpectedly, students highlighted concerns about the possibility of either contracting or transmitting COVID-19 while on placement. For the most part, students felt rural and remote locations were safe during the early stages of the pandemic given the relatively low number of local cases. Hence, students tended to be more concerned about bringing COVID-19 with them to placement rather than contracting COVID-19 from placement experiences. Students also identified the irony of being disallowed from travelling to rural and remote locations without COVID-19 cases only to then complete a substitute placement in a metropolitan location with known outbreaks. These perceptions appear consistent with attitudes in regional and rural areas of the reduced likelihood of COVID-19 infection when compared to metropolitan areas.[21,22] The finding of the perceived relative safety of rural and remote placements is also consistent with other research about medical placements during the pandemic.[15] With health students reporting a willingness to travel to rural and remote locations,[23] a more flexible and nuanced approach to risk assessments for rural placements may be needed to allow students continued access to rural communities while still keeping students and communities safe. Due to the importance of continuing student training throughout the pandemic, it is recommended that where no immediate threat to the student or community is present, rural placements continue to be offered.

Students also highlighted that there was an opportunity cost to their learning in being safe on placement due to social distancing requirements and the reallocation of resources to the pandemic response. Specifically, students raised concerns about low caseloads, reduced opportunities for engaging directly with rural and remote patients and missing out on opportunities for cultural learning. Students who had their placements adapted to virtual, simulated or non-clinical placements were particularly concerned about the lack of development of clinical skills, including assessment and management in a face-to-face setting; however, this was also seen in students who were on face-to-face placements. In part, student experiences were likely limited by a range of issues present in rural and remote health. Rural and remote health services are known to be under-resourced, and the lack of staff, supervisors and PPE, along with limited space, likely impacted student learning. Embedding and increasing the use of simulation and telehealth in health curricula and during placements may help to offset low patient presentations experienced during rural and remote placements in times of pandemic and other adverse events. In addition, opportunities for cultural learning should be offered to students outside of their clinical placements and throughout their training to ensure the development of cultural awareness.

Limited resourcing was also clear from students' perspectives of supervision during their placement, which was seen as less than optimal. This finding was not unexpected given the research emerging on the nature of supervision provided in rural and remote settings during the emergence of the pandemic.[24] As described by Martin et al.,[24] rural supervisors were experiencing high levels of stress due to a combination of changing health services and protocols, student supervision responsibilities and resource constraints due to the pandemic. Students on fully virtual placements also felt that supervision was affected, particularly around the lack of opportunity for ad hoc conversations and students needing to 'chase' their supervisors. Online and telesupervision have been features of rural placements for some time,[13] however, the pandemic saw quick pivoting to virtual placements without adequate structures already in place to support the placement. As blended and virtual models of working are likely to continue post-pandemic,[25] the use of virtual placements and remote supervision should be carefully considered to ensure a positive student and supervisor experience and understanding of rural settings. Supporting rural and remote placement supervisors to understand, and plan for, effective supervision during pandemic circumstances is recommended prior to placements commencing. Additional resourcing through remote supervision from university staff could also support both students and supervisors during rural and remote placements in times of adverse events.

Despite the lost opportunities, some students recognised the value added to their altered placement experiences. Some students saw the benefits of seeing a rural health facility responding to a global pandemic. Students with non-clinical, simulated and virtual experiences also recognised that these adapted placements resulted in an increase in skills desirable as graduate attributes and for employability. For example, students developed organisational skills, written communication skills, problem-solving skills and technological skills including telehealth.[14,25] Telehealth continues to grow as a model for health care delivery,[26] and the importance of including telehealth training in the curriculum has been recognised by medical students.[14] Therefore, while placement experiences may not have matched student expectations, they still provided learning and development of skills that are important for future rural practice. A focus on embedding telehealth into health curricula will ensure that all students are well-trained and prepared for the use of telehealth as a regular service delivery method in rural and remote practice, as well as non-rural contexts.

Finally, students emphasised a sense of loneliness and isolation brought on by social and community disconnection while on placement. Not only did students have limited opportunities to engage with other students and clinicians at placement sites and accommodation facilities, but they were also unable to immerse themselves in the local community and build physical connections with the local area, all of which are important for the development of a sense of place, rural practice and community engagement.[27,28] Importantly, this sense of disconnection between rural and remote communities was amplified for students who undertook a virtual rural or remote placement experience, where they remained at home and delivered services remotely via telehealth. This finding is similar to Mak et al.[11] who found that virtual placement experiences allow students to achieve clinical learning outcomes, but were not as effective in facilitating their affective and physical learning about the rural location. This reinforces that the physical and relational experiences on rural and remote placements are valued by students and important for their learning and enjoyment of their rural or remote placement.[29] Planning student connection with other students and the rural and remote community throughout placements is therefore important. This could be achieved through peer placements and embedding social and interprofessional learning activities into placement planning. Where students are not physically located in the rural or remote community or with each other, using teleconferencing to build connections is recommended.

Rural practice intention is in part developed through quality placement experiences which broaden students' understanding of rural practice and lifestyle.[30] Quality rural and remote placements encompass high-quality supervision, social opportunities, including community immersion and exploration of rural areas, and skill development involving a broad clinical caseload.[20] Students in this study identified that many of these features of quality placements were affected during their placement in the early stages of the pandemic. Students' perspectives of their placements during the pandemic have provided insight into aspects of rural placements that are valued by students. In particular, students were disappointed to miss out on the community and social experiences that are a hallmark feature of rural and remote placements. This, together with the loss of patient presentations, direct contact with patients, and supervision, therefore all likely impacted students' concept of rural and remote practice and lifestyle. Although students recognised the challenging and unprecedented circumstances of the pandemic, the potential for their experiences to have negatively influenced rural practice intention cannot be discounted. Further research into placement experiences during the early stages of the COVID-19 pandemic and the desire to work rurally is therefore needed.

4.1 | Limitations

This study was implemented rapidly during the early stages of the COVID-19 pandemic in 2020, and interview questions were designed to gather general perspectives and experiences of students' rural and remote placements during that time. The research, therefore, presents a snapshot in time and the impact on placements may have changed as the pandemic has progressed and responses to it have evolved. Furthermore, the amount of time between the placement and interview differed between participants (some a few weeks later and others several months), potentially impacting on students' recollections. Student self-selection for the research is also likely to reflect a particular sample, possibly with students whose placements were most impacted by COVID-19 being more motivated to participate.

5 | CONCLUSION

Student perspectives of rural and remote placements during the early stages of the pandemic have revealed rural locations were perceived as safe, and students were willing to attend their rural placements. While students experienced unanticipated skill development from placement experiences, they also described lost opportunities in relation to clinical learning and the development of cultural awareness. Students also described their disappointment about limited opportunities for social connection and community engagement while on their placement. This suggests rural and remote placements are well known for their opportunities for social and community connection, in addition to cultural and clinical learning. Given the importance of rural placements for developing the future rural workforce, strategies to enable the delivery of 'quality' placements under pandemic circumstances are needed. This would include preserving cultural experiences, social connection, community engagement, patient interaction and supervision.

CONFLICT OF INTEREST
The authors declare no conflict of interest.

ETHICAL APPROVAL
Ethics approval was obtained principally from the University of Melbourne (2056941.1), and other participating universities as necessary (University of Tasmania, University of Newcastle, La Trobe University, The

University of Queensland, University of Western Australia, Flinders University and James Cook University).

ORCID

Lyndal Sheepway https://orcid.org/0000-0001-5133-5714

Belinda Jessup https://orcid.org/0000-0001-9712-1703

Tegan Podubinski https://orcid.org/0000-0002-3288-3720

Susan Heaney https://orcid.org/0000-0001-8206-4080

Jodie Bailie https://orcid.org/0000-0003-4393-5773

Ha Hoang https://orcid.org/0000-0001-5116-9947

Lisa Bourke https://orcid.org/0000-0003-0411-6193

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APPENDIX A

A.1 │ Interview questions and prompts

1. COVID-19 has resulted in a range of changes. Can you tell me about how COVID-19 has impacted you and your study?
   a. Has anything changed for you due to COVID-19?
   b. What is your experience of the physical distancing and essential travel only requirements?
   c. Has this impacted on you socially?
   d. Has this impacted on you financially?
   e. Has this impacted on your studies?
2. I understand that you were scheduled to undertake a rural or remote placement during COVID-19. Can you tell me about that placement and how it came about?
   a. How far away was the placement from where you live while you study?
   b. What sort of placement was it? (i.e. hospital based, service learning, area of study, etc.)
   c. Did you choose the placement?
   d. Did you choose to go to a rural or remote location?
3. Did you go on the rural/remote placement?
   a. Was it your choice to (not) go on placement during COVID-19? Why/why not?
   b. Were you happy to (not) go on placement during COVID-19? Why/why not?
   c. Can you describe your experience of the decision to (not) go on this placement?
   d. What are the implications for you resulting from (not) going on this placement?

If the student did not do any placement, skip to Q. 6

4. Did COVID-19 change your placement in any ways? If so, in what ways? If not, why not?
   a. where placement was located?
   b. tasks undertaken?
   c. supervision?
   d. contact with patients/clients?
   e. contact with students?
   f. use of technology?
   g. accommodation?
   h. support provided?
   i. what did you think of these changes?
5. Can you tell me about your experience of undertaking a placement during COVID-19?
   a. What was the placement like?
   b. Was the placement what you expected?
   c. Did you get out of the placement what you wanted?
   d. Did you learn new skills?
   e. Can you describe the accommodation you stayed in?
   f. Can you tell me about the supervision you received?
   g. Did you have any connection with the rural/remote community where your placement was based?
   h. Did you feel supported during placement?
   i. Did you feel safe during the placement?
6. Did you have any concerns about your safety during COVID-19? Can you tell me about these concerns?
   a. During placement?
   b. During employment?
   c. Did you feel at risk at any time?
   d. Did you feel that your safety was well considered?
   e. Did you feel that you would have liked to have taken more risks?
7. Do you have any concerns about your study at the moment?
   a. About your learning?
   b. About your progress in your course?
   c. About your safety?
   d. For the support you are receiving?
   e. About the future?
8. Is there anything else you would like to add about your experiences over the past few months?
   a. Your general wellbeing?
   b. Your studies?
   c. Your relationships?
   d. Anything else?
   Demographic questions:
   a. What is your discipline of study?
   b. What year of study are you in?
   c. Do you normally live in a rural or remote location while studying?
   d. What is your gender?
   e. Are you under or over 25 years of age?