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Navigating the Rural Clinical Education Pathway in the Time of a Pandemic: Opportunities and Challenges

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Abstract

The outbreak of the COVID-19 pandemic has changed everything about the world we live in, in 2020. It is having obvious impacts on the way we teach and the way we learn. In Victoria, Monash Rural Health Bendigo is one of the few places that has managed to continue clinical health education and clinical placements throughout 2020—albeit in modified forms. Monash Rural Health Bendigo provides clinical years education to a cohort of between 100 and 130 Third, Fourth- and Fifth-Year Monash Medical students in a rural setting. It is largely an 'apprentice based' model of learning where the students get access to rural clinical sites and rural health experts as well as a state-of-the-art clinical skills and simulation lab to undertake the clinical years of their medical degree. But what happens to this kind of model during a pandemic induced shut down such as was experienced in 2020? This paper explores the challenges but also opportunities for students pursuing a rural health pathway in the midst of a public health emergency. It examines the findings of the COVID-19 Educational Evaluation conducted in Bendigo throughout 2020 and reveals the advantages but also the unanticipated consequences of students choosing to study rurally in the midst of a global pandemic.

Keywords: Rural, clinical, health, education, pandemic, medical

Introduction

Monash Rural Health Bendigo, one of the main campuses of the Monash University School of Rural Health, provides clinical health education to a cohort of between 100 and 130 Third, Fourth- and Fifth-Year Monash Medical students in a rural setting. It is an 'apprentice based' model of learning where the students get access to rural clinical sites and rural health experts as well as a state-of-the-art clinical skills and simulation lab to undertake their clinical education.

As the full impact of the COVID-19 pandemic was being realised it became clear that Monash Rural Health Bendigo students were going to be able to continue several important aspects of their clinical education in Bendigo, that they would not have been able to continue in another setting—particularly in a metropolitan location. Based on this realisation it became important to collect some data about the experience of undertaking clinical education in a rural setting during this period.

This paper forms part of a larger COVID-19 Educational Evaluation Project (Ethics approval Project ID 24056, approved 9/4/20). It explores the benefits, opportunities, and challenges of studying medicine as part of a rural cohort during a global pandemic. It looks at student feedback about clinical education in a rural context in response to the first wave of the pandemic in Victoria. It

then examines the steps taken by Monash Rural Health Bendigo in response to this initial feedback. Finally, it examines the students' views at the end of 2020 in the wake of the second, more serious, COVID-19 outbreak in Victoria.

Context and History

Monash Rural Health is a multi-site school within the Faculty of Medicine, Nursing and Health Sciences of Monash University. The school is committed to improving rural health and developing a sustainable rural health workforce. One if its main aims is to make a difference to rural people and their communities, locally, nationally, and internationally through its commitment to excellence in education and research (Monash University 2020). The School of Rural Health at Monash University has its origins in the year 2000, when the then Commonwealth Department of Health and Ageing (now Department of Health) announced the establishment of a Rural Clinical School funding program and invited universities to deliver medical education in rural communities (Greenhill, Walker & Playford 2015). The footprint of Monash Rural Health now extends across Victoria from Mildura in the west to Bairnsdale in the east. It operates through two distinct hubs: one in the Loddon Mallee Region in north-west Victoria and one in the Gippsland region in south-east Victoria (Monash University 2020). Within the Loddon Mallee Region there are major campuses in Bendigo and Mildura as well as various smaller hubs and clinical teaching sites across the region. The research for this paper was conducted in the Bendigo region.

Literature Review

Early in 2020 medical education programs globally were faced with the challenge of a pandemic that posed significant challenges to clinical teaching and learning. These programs were uniquely affected as they sit at the nexus between the university system and the health system. The School of Rural Health at Monash University is one such program. In mid-March 2020 ABC news reported that "*Melbourne's biggest universities are moving away from face-to-face learning in preparation for potential campus shutdowns, after Victorian Premier Daniel Andrews declared a state of emergency over the coronavirus pandemic*". With "*all tutorials, workshops and practicals … suspended until the end of the week so staff can prepare for online learning*." (ABC News March 16 2020). Medical students in their clinical years were heavily impacted by this shift to online remote learning as so much of clinical education takes place in hospitals and community health settings. Globally, medical students lamented the cancelation of clinical rotations which resulted in the loss of essential learning opportunities (Li & Bailey 2020). This is not a new phenomenon with medical schools having faced the same dilemma during previous epidemics such as the SARS and influenza (Lim, Oh, Koh, & Seet, 2009). Very quickly medical education programs were reporting on their experiences of navigating this significant disruption in locations such as Singapore (Kanneganti, Sia, Ashokka, & Ooi, 2020), India (Sahi, Mishra & Singh 2020), the United Kingdom (Alsafi, Abbas, Hassan, & Ali, 2020) and the United States (Suh et al 2020). In Australia, there has also been considerable discussion of the impact of COVID-19 on medical education (Torda 2020; Pather et al. 2020). However, the relatively low case numbers in Australia, along with the significantly stricter lockdown experiences in metropolitan areas compared with regional and rural settings (Hurst & Taylor 2020), placed the Monash School of Rural Health in a unique position to be able to continue with clinical placements and rotations, albeit in modified forms. This paper provides and analysis of the continuing opportunity for medical education in the rural setting of Bendigo during this time.

Methodology

The findings contained in this paper come from the Monash Rural Health Bendigo COVID-19 Educational Evaluation Project conducted during 2020. The project was designed using an action

research model (Stringer & Aragon 2021). There are some examples of action research in health disciplines such as nursing (McDonnell & McNiff 2016; Munten, Van Den Bogaard, Cox, Garretsen, & Bongers, 2010) and allied health (Bennett et al., 2016, Delany & Golding 2014) but use of this methodology is less prevalent and viewed with some scepticism in medical education settings (Edler 2009). Action research was chosen for this study as the rapidly evolving pandemic response required a research methodology that involved a feedback loop to ensure that what was learned from the project could be implemented as change, quickly and effectively. The project was designed to be rolled out in three phases:

1. Orientation to a new reality, adaptation and ensuring continuity
2. Refinement of new ways of working through the use of a feedback loop and reflective practice
3. Program evaluation

The feedback loop in the second phase of the project provided staff with an opportunity to understand what was working and what needed further refinement as we continued to evolve our response and provide immediate benefits to current students. The results of the full evaluation would then benefit future cohorts of rural health students as new processes were documented and adapted based on what was learned in 2020.

In Phase 1 students completed a short (5 minute) online survey using the Qualtrics platform to evaluate the initial educational response. Separate surveys were designed for each of the three clinical year levels – Year 3, Year 4 and Year 5, as each year level has differing educational activities. At the end of the Phase 1 online survey, students were asked to self-select into a follow up one to one interview via Zoom. The purpose of these interviews was to further explore some of the findings from the survey responses. These interviews included an additional consent process seeking permission to record the interview. They were transcribed and analysed thematically along with the survey results. The findings from Phase 1 were reported to the faculty and staff of Monash Rural Health Bendigo with a view to discovering what, if anything, we could change or improve for Semester 2, 2020. These changes were implemented as Phase 2 of the project. Phase 3 then took place between September and October 2020 with individually designed end of year evaluation surveys being sent out to students in each of the three clinical year levels, again via the Qualtrics platform. Relevant staff were involved in developing suitable questions to elicit feedback on the program, unique to each year level and based on the responses to Phase 2.

Findings

This section will detail the findings in response to the Phase 1 surveys and follow up interviews. It will then look at the changes that were implemented to the program in response to the Phase 1 findings. Finally, the end of year evaluation findings from students will be examined to see how being part of a rural cohort helped or hindered student progress in their clinical education throughout 2020. It should be noted that the Monash Rural Health Bendigo COVID-19 Educational Evaluation Project explored a range of areas including ‘Online teaching and learning’, ‘Clinical placements’, ‘Clinical skills and simulation’, ‘Being part of a rural cohort’, ‘Perceptions of assessment, academic and clinical progress’ and ‘Perceptions of safety’. However, this paper will focus on the findings that relate to ‘Being part of a Rural Cohort’ as they are the most pertinent to the focus of this journal.

Phase 1 findings

As shown in Table 1, a total of 108 student surveys were sent out via email in early May 2020. Of those who clicked on the survey link 100% consented to participate. There were only two surveys commenced but not completed (both Year 4). The response rate for student interviews averaged 37% across all year levels.

Table 1: ***Phase 1 Student Survey Responses and Interview Participation***

	Year 3B	*Year 4C*	*Year 5D*	*Overall*
Surveys sent out	20	51	37	108
Surveys completed	9	14	17	40
Response rate	45%	27%	46%	37%
'Yes' to follow up interview	5	5	7	17 (16%)
Follow up interview conducted	3	2	3	8 (47%)

There was a fairly even spread to the students who self-selected to participate in a follow up interview across all three year levels, as well as those who followed through and participated in the interview. Each student interview went for about 30 minutes.

In Phase 1 students were asked 'How useful is it to be studying as part of a rural cohort during the COVID-19 outbreak?'. As illustrated in Figure 1, of the 40 students who completed the survey 60% of respondents thought it was extremely useful with a further 20% believing it was at least moderately useful to be in a rural setting during the pandemic.

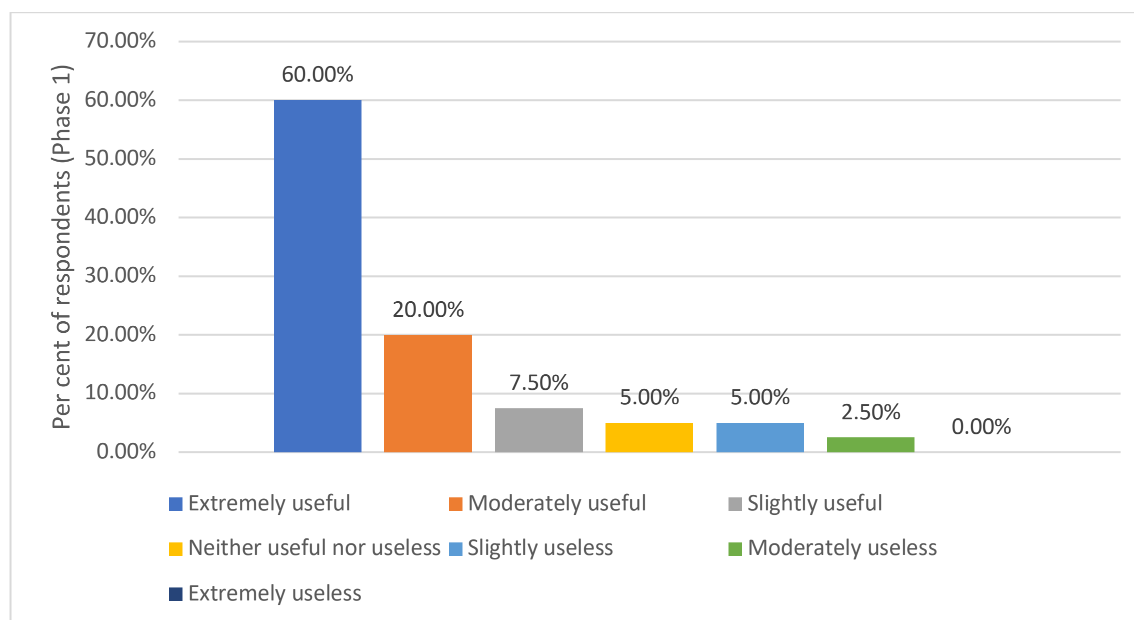

Figure 1: ***Usefulness of Being Part of a Rural Cohort During COVID-19—Student Responses (n=40)***

Their reasons for this can be broadly categorised under three themes: i) ability to continue clinical placements; ii) feeling safer from the pandemic itself in a rural context; and iii) the support of staff and peers in a smaller cohort.

Students felt that being part of a rural cohort was very helpful during the pandemic as they were able to continue their clinical placements almost uninterrupted. In the free text responses of the Phase 1 survey one student noted: "*we have been very fortunate to have been able to carry on placements with little/minimal disruption whilst our colleagues in certain metro hospitals have had their placements disrupted*". Other students observed the advantages in similar ways:

> *Placements are still going on with ample opportunities to perform clinical assessments before presenting to a senior doctor.*

> *We actually stayed on placement, the hospital actually wants us around and we actually feel useful.*

Student survey responses also suggested that they felt safer being in a rural area during the pandemic because there was: *"less exposure, fewer cases, less restrictions, less worry of contracting the virus".* Other students commented:

> *I think there is a lower risk of getting COVID in a rural area so I feel safer going to the shopping market or hospital.*

> *I feel safer exercising and going to the supermarket in a rural town as it is less crowded.*

This feeling of safety from being in a rural setting was reinforced in the student interview responses as well, for example:

> *Being in a rural town has been a real advantage. Even when the mania was happening and people were buying up things, at the supermarkets here there was maybe a period of two weeks where things were a bit iffy but then it was back to normal and fine. Even now the avocados are back and that was the only thing I was missing before then! So, it's been a real positive.*

Finally, the survey responses identified that a big advantage of studying in a rural area during the pandemic was the ongoing support that came from being part of a smaller academic cohort:

> *We have kind, supportive staff, supervisors and tutors who know us and appreciate us.*

> *Tutors knowing us by name makes us accountable to attending tutorials.*

> *I still get to live with other students in Lister House which promotes study and mental health by having friends to talk to.*

> *…living rurally I've been able to make a lot of new friends here and living with other medical students helps me be motivated to study more.*

This was again reinforced by the student interview responses:

> *I think our housing situation was also good. Obviously being rural we're all placed with other medical students and I think that makes it easier because we're all in the exact same boat. Like if I was in Melbourne, for example last year I was living with all non-med people and so when Monash Uni went all online for first semester all my housemates would have moved out and I would have been by myself. So being with other medical students is helpful, especially being at the same hospital. We're all exactly in the same boat and not alone.*

Interestingly the student interviews revealed the significance of the peer mentoring and support that has emerged as a support structure for students during this time. This was not something that was asked about in the initial student survey but was mentioned repeatedly in the student interviews:

> *I've found that the 5th Years have been really, really valuable in terms of a lot of the learning we have been doing up here.*

> *The 5th Years have had a change to their program. They are all up here for a longer time now and that's actually been really nice. We've had a few 5th Years who have been really generous and have given us little tutes here at Lister [student accommodation] so that has been really nice and helpful.*

Students who were interviewed also offered greater detail about the benefits of studying in a rural location where the health services work closely with the clinical school:

> *I think there has been more support from the health services and hospitals to keep us in placements too. So, I don't think it is just an issue of coronavirus more severely affecting the city or being at a higher risk there. There has also been the attitude of the services, the staff and the university that has supported that… the health services and they work closer*

together. I think it's also just the attitude of being rural and the perceived benefits of having extra hands on deck and I think we are valued a bit more by the rural services.

Big city hospitals couldn't obviously… they were always going to kick students out because they were the ones that were going to be hardest hit by this. Bendigo can afford to keep us there and they might even need us there if their staffing levels get too low. So, I was really lucky to be here and it really helped, I think.

Students also identified some disadvantages to being in a rural setting during the pandemic with the main hardship being isolation from family and friends as well as the impact on mental health and wellbeing. In the surveys the students said:

It's been a very stressful and anxious time for everyone, and it's isolating to not have anyone in my position to talk about it. I am absolutely exhausted and no one seems to think of the anxiety and emotional toll of keeping students on placement when all their supports are taken away.

Being unable to travel it is more isolating to be in a rural area away from family and friends.

Being told that we weren't able to go back and visit our families was very difficult for me.

However, there was a level of understanding about the necessity for these measures:

Not being able to see family back in Melbourne does make things hard, but I understand that this is a necessity.

The interviews also identified some challenges of being in a rural context during this first wave of the pandemic in Victoria, specifically around isolation from family and support structures:

I completely understood why it had to happen, but that 7-week period at the start when there was no leaving the Bendigo area was difficult in terms of stress and mental health wise, it makes things harder.

Other students who were interviewed identified some challenges and anxieties associated with rural student housing as the public health advice was changing:

Living with a large number of people means that if one person gets COVID, it's likely to spread quickly.

It has been hard with people continuing to travel to Melbourne, despite electing to be in Bendigo. This has caused tension among students while not being socially responsible.

Other challenges related to the studies themselves and the level of uncertainty about the constant changes to academic rules and placement or patient related guidance. The survey respondents acknowledged that these challenges didn't directly relate to being in a rural context:

The patient load has been slightly on the lower side the past few weeks, but this may not solely be due to the fact that we are in a rural hospital but may also be attributed to the current pandemic situation resulting in more people opting to stay at home rather than be admitted.

So, some of my friends in metro might not have a lot of clinical exposure but they have a lot of time to study from a textbook. I have literally no time to study.

I am not sure that being on placement now is going to have any benefit in terms of progression compared to those without placement. I might just be burnt out this year from continuing placement and then my next year will be extended with everyone else and I'll get no break.

Overwhelmingly the students who were interviewed identified that, in spite of any challenges faced, they would prefer to be rural rather than metropolitan:

I think with Bendigo we got lucky, I think we are the least impacted of all the med students who are at our year level. We were taken off placements much later than metro students and we were also put back on placements earlier than the metro students

I still think we are better off for having that clinical experience because there is only so much you can understand from a textbook. All else being equal I'd rather be in Bendigo than metro. Some of my friends in metro they do worry about the lack of clinical exposure due to COVID.

When students were asked at this stage of the pandemic how positively or negatively they felt being part of a rural cohort would impact on their academic and clinical progress, they overwhelmingly felt that it would be positive to a certain degree. In fact, more than 50% felt that it would impact moderately or extremely positively, as shown in Figure 2.

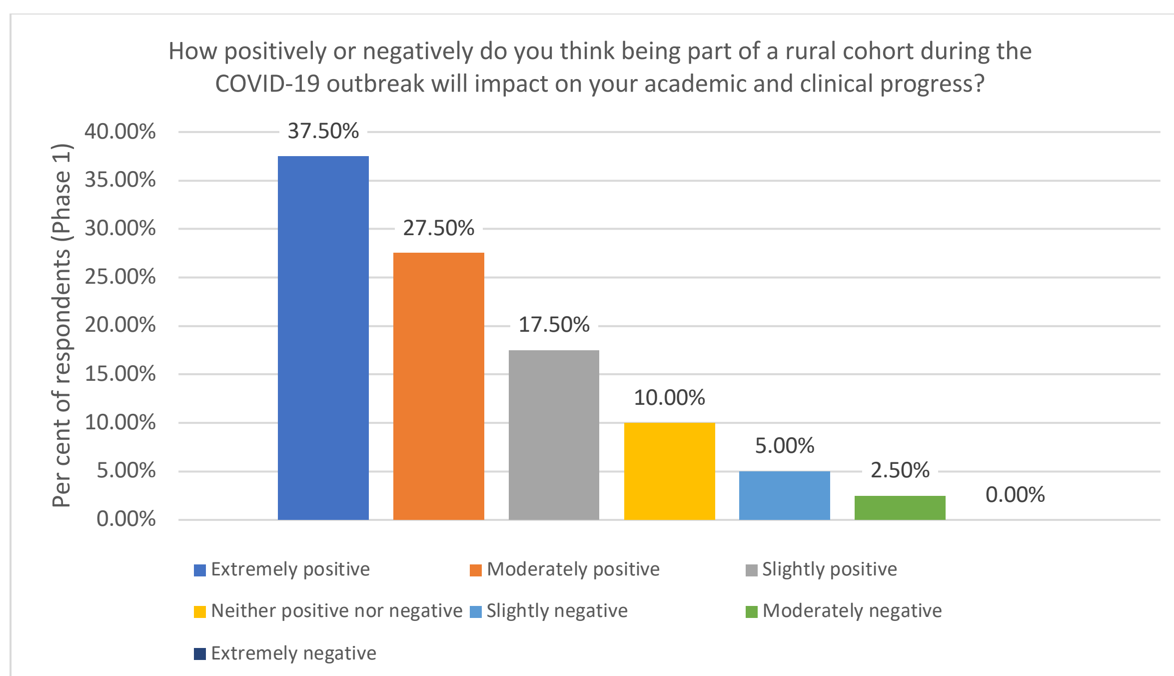

Figure 2: *Student Perception of Impact of Rural Cohort on Academic and Clinical Progress*

One Year 5 student who was interviewed made the following observation:

I feel ready right now to be an intern and I think a big reason for that is my ability to be here consistently. Talking to my colleagues in Melbourne I don't think any of them have even come close to my experience, and normally they don't come close to the rural experiences because of the way that the metro rotations work, but even more so now. I think it's definitely paid off.

Several Year 5 students made strong recommendations about how the COVID response had shown it was more than possible for students to complete their clinical education fully in a rural setting and this would be preferable for many, especially those within the Monash Extended Rural Cohort (ERC) who are normally required to spend time in metropolitan rotations in their final year. One Year 5 interviewee said:

The objective benefits for me of being in Bendigo were just logistics. As a rural student they make you go metro, you don't get to choose, you have to do some and I don't have accommodation there. So logistically coming to Bendigo has been excellent, I am in one site the whole time, all my friends are here, I know the hospital, I want to work here next year, so it has been excellent for me logistically.

Another Year 5 student made the following observation in their survey response:

> *One thing I'd really like to see out of this is the opportunity to do final year in one site. I just don't understand why the Faculty makes ERC students go metro … I feel really lucky that in the end I didn't have to go metro. I'd really like to see if they can do that in the future. The opportunity to be in one site continuously would be good.*

The findings from Phase 1 gave rise to several next steps and corresponding actions, explored in Phase 2.

Phase 2 responses

At the completion of Phase 1 of the project the findings were compiled into a report that went out to the faculty and staff of Monash Rural Health Bendigo. Changes in response to these findings were implemented as Phase 2 of the project with a view to improving the student experience in Semester 2, 2020 and beyond. The following steps and corresponding actions, contained in Table 2, were taken with regard to being part of a rural cohort during Phase 2.

Table 2: Being Part of a Rural Cohort- Phase 2 Next Steps and Actions Taken

Next steps identified	*Actions taken*
Look at the support services available to students.	A number of mental health and counselling options were already available to students including: • Wildfires Rural and Indigenous health club providing mental health and counselling support (contacts on the Moodle site) • Peer mentoring in accommodation sites • Student well-being officer who spoke to every student personally throughout the year • RUOK Day • Academic and personal follow up by Clinical Site Administrators and Academic Leads at each year level • Reminders about these services communicated to students throughout Semester 2.
Explore possibilities of expanding the Y3/Y5 peer mentoring program.	No specific action was taken during Phase 2, but this will be a focus of the end of year evaluations and will feed into 2021 planning.
Explore new ways of communicating information to students to avoid email overload.	The Moodle page for Bendigo students has been completely redeveloped with dedicated pages for each year level and dedicated student accommodation and student wellbeing pages in development. The aim of this is to make important information available to students without needing to email constantly.
Explore the feasibility and desirability of Y5 being completed fully in a rural setting into the future.	Information from the Faculty indicates that at least Semester 1, 2021 will be conducted as a single site placement, meaning that Y5D students will spend at least one full semester only in Bendigo, with the possibility of staying for the full year.
Provide feedback and thanks to the clinical partner sites about the student experience during COVID.	This information has been fed back through the Academic Leads for each year level who deal directly with the clinical education placement sites and through the Director or Monash Rural Health Bendigo.

Phase 3 Findings - End of Year Evaluations

Commencing in September 2020 a series of end of year evaluation surveys were sent out to students in all three clinical year levels. Again, students were informed that these anonymous surveys would form part of the broader COVID-19 Educational Evaluation Project and were directed to the explanatory statement. The survey response rate for the end of year surveys, outlined in Table 3, was significantly higher than for the Phase 1 surveys.

Table 3: End of year evaluation student survey responses

	Year 3B	Year 4C	Year 5D	Overall
Surveys sent out	20	49	36	105
Surveys completed	12	26	24	62
Response rate	60%	53%	67%	59%

This section of the findings again focuses on the advantages and challenges of being part of a rural cohort during a pandemic. A number of student survey responses specifically mentioned the value of *being in a well-supported centre "like Bendigo Health,* as well as the *good support from the School of Rural Health"* and the significance of the "*School of Rural Health's dedication to keeping placements available".*

Students felt grateful to have had continuing placements through the year even with the interruptions posed by the COVID-19 pandemic. One Year 5 student commented on the value of "*moving to placements in Bendigo from metro sites given the impact on clinical placements due to the COVID-19 pandemic".* Another reinforced this saying they valued "*being able to stay on placement and still have exposure to patients throughout 2020 despite COVID".*

A Year 4 student noted: "*I am grateful to have continued placement for most of the year. It has significantly contributed to my learning".* A Year 3 student commented: "*I think the Bendigo faculty has done a great job keeping us on placement this year and I appreciate that we were lucky enough to remain on placement throughout the entire year".*

However, the decision to ensure continued placement, while appreciated by students was not without consequence for them. An executive decision was made to prioritise the clinical placements of the Year 5 students so that they would be in the best position to graduate and start their intern year in 2021. The result of this was a very strong affirmation of 'readiness' by the Year 5 students. When asked to respond to the statement 'I feel ready to be a doctor', all respondents said that statement described them well to some degree. As Figure 3 shows, more than 40% of respondents said that statement described them 'very well' or 'extremely well'. The majority of the other respondents said it described them 'moderately well'.

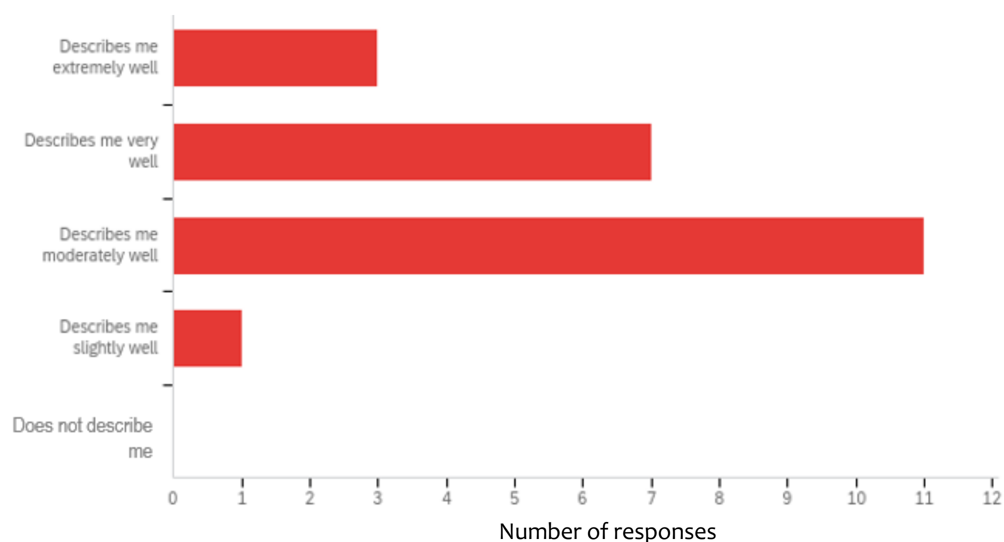

Figure 3: ***Year 5 Responses to the Statement 'I Feel Ready to be a Doctor' (n=24)***

The prioritisation of the Year 5 students to ensure they felt ready to graduate as doctors, combined with the fact that many community placements were shut down and students had to be moved onto hospital-based placements, had a ripple effect on the other year levels. This was noted by the Year 5 students:

> *It felt like there were even more students than normal on the wards which became complex, and sometimes (students) felt pretty unwanted or a burden which is understandable given the COVID scenario but challenging, nonetheless.*

> *Honestly, the third years have been pretty screwed over this year which was really hard to watch. They weren't able/allowed to come into placement that often because of number restrictions on ward rounds where final years were the 'priority'.*

The impact was also felt by the Year 3 and 4 students who spent time in hospital wards:

> *Placements, due to COVID, were very limited, made it very difficult that only one student could be on the wards and we are not allowed to see patients by ourselves.*

> *Many clinics could not have all the students that were assigned (due to room capacity limits) and reduced ward time due to the 5th year also being placed on paeds.*

> *We spent a lot of time waiting outside the ED and ICU while the teams saw patients which is disappointing as this is where most of the high yield and assessable presentations are.*

There was however, some acknowledgement that the restrictions were a product of circumstances due to the pandemic: *"The restrictions on ward visits did make it difficult, but I know that the Monash SRH (School of Rural Health) faculty is not at fault for this".*

In a 'normal' year the rural Year 5 students would move between rural and urban sites for their clinical rotations. Due to the nature of the COVID-19 pandemic in 2020 the decision was made for Year 5 students to remain in one place and complete all of their placements from that location. This opportunity was noted as being particularly helpful by the Year 5 students with majority of rating being based in one rural location for their final clinical year as either Excellent or Good. These results are shown in Figure 4.

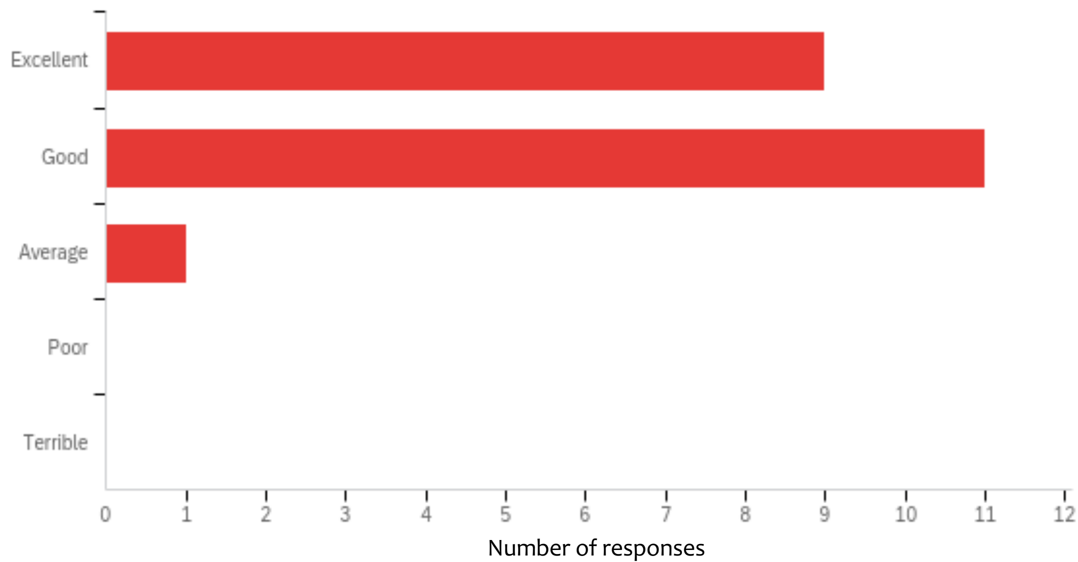

Figure 4: ***Year 5 Responses to the Question— 'How Would you Rate the Opportunity of Being Based in one Location for Your Final Year?' (n=24)***

This change meant that the Year 5 and the Year 3 students have been together for most of the year in 2020 which has resulted in increased interaction and peer mentoring between year levels. Both the senior (see Figure 5) and the junior (see Figure 6) students saw this as something very valuable that was possible in a rural cohort and helped them a great deal in 2020.

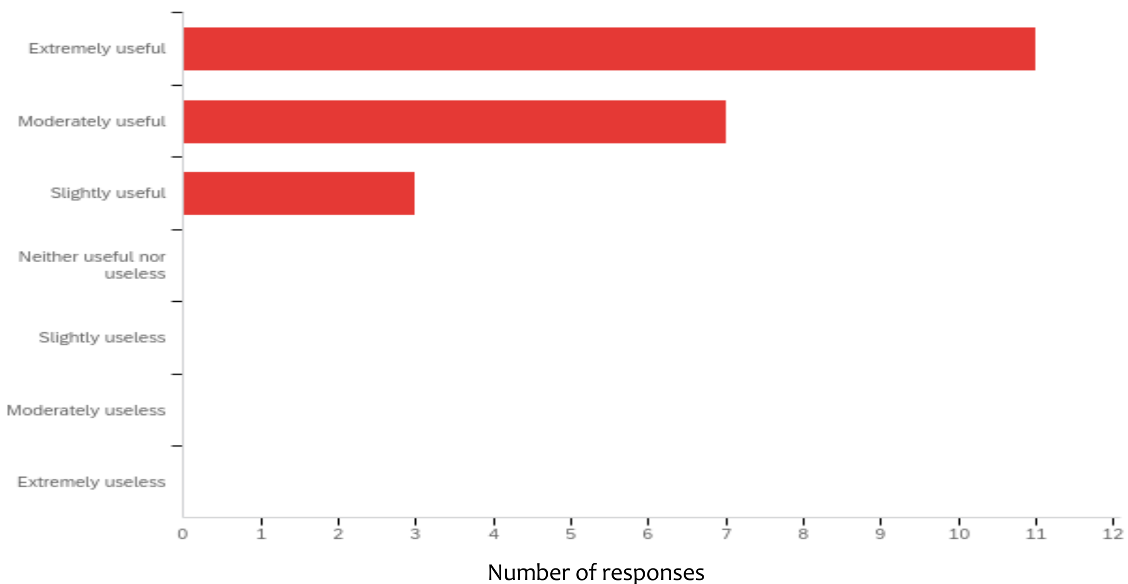

Figure 5: ***Year 5 Responses to the Question – 'How Useful do you Think Peer Mentoring is for Junior Students?' (n=24)***

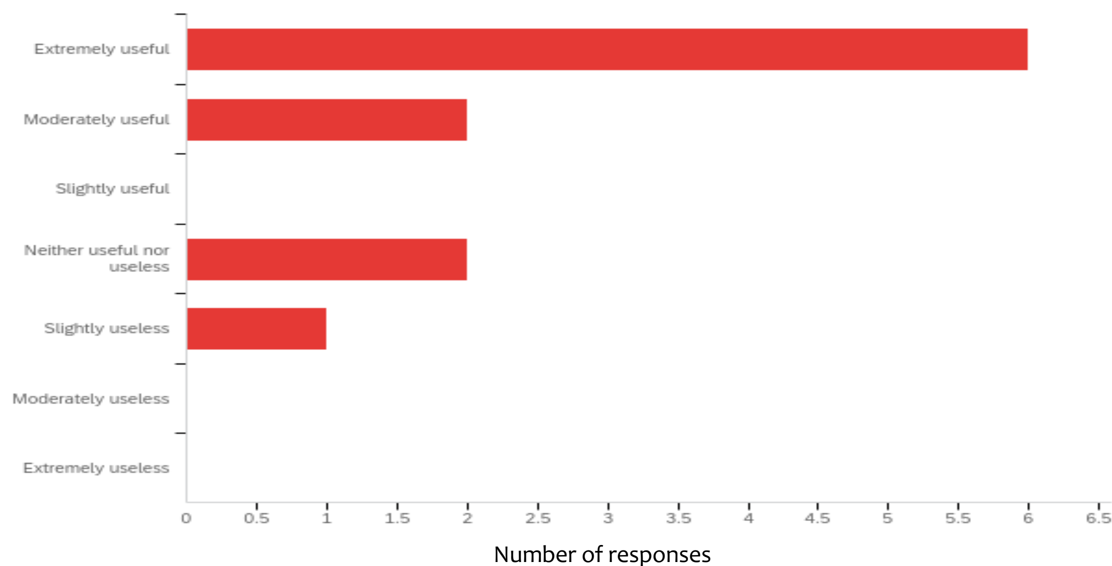

Figure 6: ***Year 3 Responses to the Question – 'How Useful has Peer Mentoring Been for you This Year?' (n=12)***

Eight out of 12 Year 3 respondents, representing over 60%, found peer mentoring extremely or moderately useful. Peer mentoring happened in a number of ways through both formal mentoring programs and informal sessions that were still resourced in some ways by the Monash Rural Health staff. The informal sessions worked best according to the Year 3 respondents:

> *The 5th Years are an incredible resource and have been amazing to work with. A lot of what I know comes from their experience, and I owe them greatly.*

> *The informal sessions at Lister House were great. I would suggest encouraging students to continue this next year.*

The Year 5 students saw this as both something they could do to pay back the help they themselves received when they were in Third Year: *"as a Third Year it was instrumental in my marks. Feedback from Third Years says that tutes, especially in the first half of the year [are] very, very useful".* And something that supports their own learning: *"One of the best ways to solidify knowledge, and I love teaching and mentoring!".*

By the end of the year the stress of all of the disruptions of 2020 and the impact on students was much more evident. All year levels identified the disruption of COVID-19 as the most difficult thing about 2020. Mental health was also a common response when students were asked what they found most difficult about the year. This was often linked to the added stress of students not being able to go home and have the support of family during stressful times. One Year 3 student mentioned that *"(n)ot being able to go home to family was difficult and stressful at times".* Another student was very honest about the additional stresses brought by the pandemic on top of the usual stressors for a medical student:

> *I have lost two close family members, I have been unable to support or grieve with my family, I have had everything I normally do to get through the year—things I look forward to stripped away from me, I have lived every day feeling very anxious about "the numbers", entering the hospital, constant rule changes, placement/course requirements/exam changes just to name a few...*

Other students linked mental health to a perceived lack of support from faculty, and this was also strongly linked to the isolation of being in a rural location away from family support:

> *Not receiving any, if not very minimal, support from faculty in terms of mental health.*

> *I would have found more support, empathy, and understanding from the faculty more helpful. Being away from home/family can be a very difficult time for many people, however, it felt as though concerns about well-being were being quickly dismissed and inadequately followed up.*

> *I felt like there was a good majority of students whose mental health suffered significantly with being separated from their support networks back home and it was either ignored or we were encouraged to push through it.*

Another Year 3 student said they would have liked "*people to talk to when you are feeling upset or under a lot of pressure*". One Year 4 student also drew attention to the vulnerability some students felt continuing with placements during a pandemic and the impact of this on mental health:

> *Telling us we are "so lucky" to be on placement is also emotional(ly) manipulative when so many faculty staff are not at work because they are worried about COVID risk—but [you're] sending us into a hospital which puts us at high risk? As well as being exposed to a number of emotionally distressing things on a daily basis—women in labour calling out for their mother who can't be there because they can only have one support person, seeing the destructive impact of COVID on every psychiatric patient... Kindness and compassion would have gone a long way.*

Communication was also something identified by students as making the year harder. One Year 3 student commented: "*Communication occasionally fell short, however the weekly (online) catch-ups plus the ability to contact staff made the communication better*". A Year 4 student suggested that: "*more compassion, communication, and support from (staff) would have made a significant difference*".

Another Year 4 student drew attention to the increased use of email for communication:

> *Receiving emails all the time about you must attend, you must have your camera on in zoom meetings, you must still complete your logbook and then being told that if we don't it is a professional behaviour matter or we will have to do catch up placement has been an unnecessary cause of stress and anxiety at an already overwhelmingly anxious time when we have had all our usual supports and coping strategies stripped away from us. It would have been lovely to receive emails that showed a genuine understanding of the challenges we face this year, and that it is hard.*

The significant shift to online teaching and electronic communication was clearly felt by students, particularly in a year where so much changed and needed to be communicated. Without diminishing the significance of the obvious stress and distress experienced by some students in 2020, it is none the less encouraging that even in the Year 3 and Year 4 cohorts, the majority of students still felt that what they had achieved in 2020 meant they felt ready to move on to their

next clinical year, as shown in Figures 7 and 8.

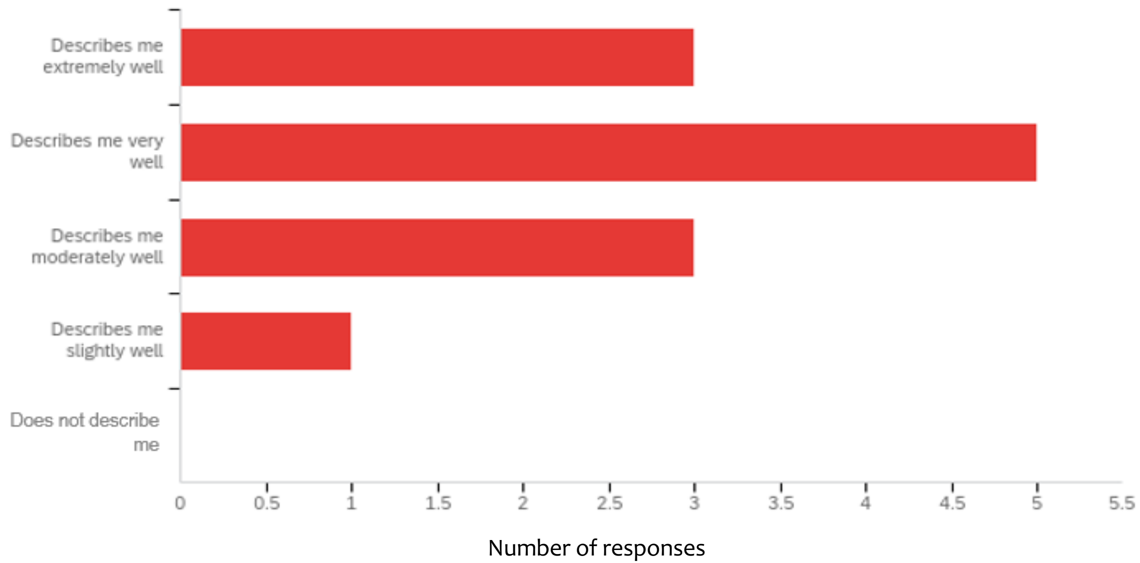

Figure 7: ***Year 3 Students' Responses to the Statement 'I Feel Confident to Move into my Next Clinical Year' (n=12)***

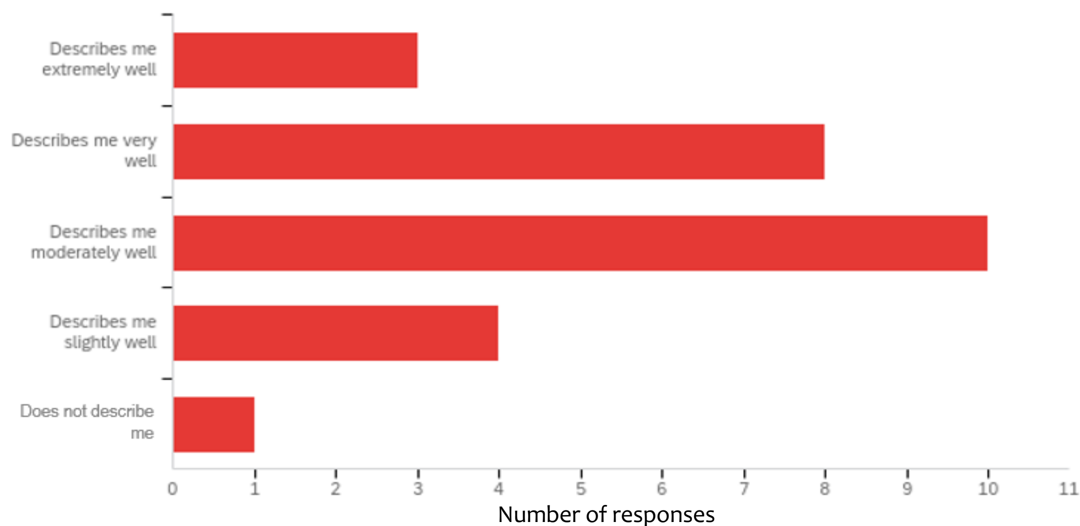

Figure 8: ***Year 4 Students' Responses to the Statement 'I Feel Confident to Move into my Final Year of Clinical Education' (n=26)***

Perhaps even more encouragingly, a majority of students at the Year 3 and Year 4 levels expressed strong interest in working rurally once they completed their clinical years. In the Year 4 responses more than 60% of students who completed the survey said that they would 'probably' or 'definitely' want to work rurally. In the Year 3 cohort almost half of students who responded to this question said 'probably' or 'definitely'. Another third of students said they might or might not and a small proportion said probably not. Interestingly, no students responded 'definitely not' which is a strong indication that at the very least spending 2020 in Bendigo had not turned anyone off working rurally and instead had possibly strengthened the idea for some.

Discussion

There is no question that being in a rural location contributed significantly to the ability to keep clinical education going at Monash Rural Health Bendigo during the coronavirus pandemic in 2020. Some of the key reasons for this were good relationships between the clinical school and

the clinical teaching sites, especially the hospital, which ensured continuation of clinical placements; the lower COVID case numbers in a rural setting and the subsequent feeling of safety; the smaller cohort of students in a rural setting ensuring more personalised support; and the possibility of peer mentoring across year levels—both planned and informal. Rurality also poses unique challenges to medical students when the studying landscape shifts unexpectedly and introduces stressors that were previously unforeseen or became heightened.

The last two decades of delivering clinical education for medical students in rural locations has meant that sites such as Monash Rural Health Bendigo are well placed to respond to significant disruptions when they occur. In large part this is due to the close working relationships that have been cultivated between the clinical school and the local clinical education sites. It was largely these relationships that enabled staff across all sites to navigate the myriad new rules and restrictions imposed by the public health response and state of emergency in Victoria during 2020 and still find a way for students to continue their clinical placements. Clinical teaching sites honored their commitment to the education of the students, understood the value of this cohort of students being part of a health service during a pandemic, and also valued the students as a potential surge workforce if it came to that.

One of the reasons that clinical sites were more able to provide this continuity of placement and education was also the different experience of regional and rural locations in terms of the spread of the virus. For example, the City of Greater Bendigo only recorded a total of 99 COVID-19 cases throughout 2020, compared to 20,345 statewide in Victoria (DHHS as at 2 December, 2020). These low case numbers, the low levels of community transmission and low hospital admissions (Gibson, Kerr & Dalton 2020) combined with the establishment of local testing sites (Croxon 2020) and the deployment of a local public health team to undertake contact tracing (Dalton & Kerr 2020), all served to create a feeling of increased public safety in the region and ensured that the spread of the virus was contained. These local responses, that work so well in rural areas where people know and understand the people and the context, allowed regional and rural areas of Victoria to be much less impacted by the pandemic and enabled more activities such as clinical education to continue, albeit in modified forms in line with the public health advice.

The smaller cohort of clinical students on site in Bendigo was also a factor in ensuring the continuity of education during the COVID-19 pandemic. Personalised communication and one to one follow up was more possible and this was noted, especially in the first months of the pandemic, where "*tutors knowing us by name*" made a difference to the students. As the year and the pandemic wore on the constancy of the changes being implemented and the stress of the academic pressure became more evident. Coupled with this, Monash Rural Health Bendigo students were often cut off from seeing their family and friends for months on end and found this to be an additional stress associated with being in a rural location that they had not anticipated. In the end of year evaluations there was a far greater number of students who identified their mental health struggles and their feeling of isolation and linked their frustrations to a perceived lack of communication, empathy and support from staff.

One of the aspects that perhaps could not have been anticipated when so many aspects of learning moved online, was the significance of increasing reliance on email communication and removing the incidental conversations and non-verbal affirmations that occur during face-to-face learning. With the students not having the quick chat with the tutor on the way in or out of a tutorial, or not having the chats over coffee with peers, or not being able to pop in to see staff in the office, they were denied these important emotional release valves on a regular basis throughout the year. Then when they were invited to give formal feedback, several months' worth of pressure was released all at once, and in many cases directed at staff. Finding a balanced model for communication and support is definitely something that needs to be addressed in future models of online learning and student well-being, with a view to helping students manage this stress better throughout the year.

Finally, a happy accident of the changes forced into place by the pandemic in 2020 was the requirement for the Year 5 students to be in one location for the whole year and that many of them chose to stay rural. This enabled strong bonds to form between the junior and senior students, that served as one of the most important support structures and touch stones for many students throughout the year. Strengthening and supporting these peer-to-peer relationships in Bendigo will be another important action to come out of this evaluation.

Conclusion

The pandemic response has required significant change in the Monash University School of Rural Health program.but the overall conclusion of the evaluation findings presented here, is that these changes have been very successful. Students have acknowledged how fortunate they have been to continue their clinical placements, at a time when many medical students in metropolitan locations have not been given the same opportunity. There were a number of reasons that can be directly linked to the rural location that ensured this continuity of educational provision in 2020 including the good working relationships that can develop between clinical schools and clinical teaching sites in a regional centre, the relative safety of a rural and regional area in terms of virus spread, the targeted and personalised support available with a smaller cohort in a rural clinical school, and the greater possibility of peer to peer support available in a rural program.

The choice to pursue a rural clinical pathway also comes with challenges. Clinical schools remain beholden to not only the university guidelines but to the public health response and restrictions and this subjects students and staff to layers of constant rule changes and a subsequent bombardment of electronic communication. In the absence of family and friends' support, students look to staff to take on a far greater role in their emotional wellbeing, and in a busy year where everyone has been reacting and responding, sometimes this was not seen until it was too late. Nevertheless, the benefits of undertaking clinical years in a rural setting have been evident for the students in 2020 and the majority of students feel not only ready for their next step but also remain committed to working rurally in the future.

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