









1. Changing landscape of rural general practices

The coronavirus pandemic has initiated significant changes that have the potential to transform how general practitioners and trainees work and learn in the longer term. The interactional and relational qualities of patient consultations have been modified by the introduction of consultations at a physical distance, the enhanced use of electronic technology (e.g., tele-medicine, referrals and prescriptions), tighter management of face-to-face patient attendance, and fluctuating patient loads. If there are ongoing changes in the kinds of interactions and activities that comprise the daily work of rural general practices, there will be consequences for the professional development of general practitioners and their staff, but also the kinds of training that will be afforded trainees (including students, junior doctors and GP registrars) during their time in these practices.

Consequently, the trainees' learning landscape has been disrupted and 'tried and tested' strategies supporting learning through practice may no longer be the most appropriate approaches for supporting learning in these practices. For example, in future there may be fewer opportunities for face-to-face engagement with supervisors and patients, and the potential for an increased sense of isolation (Cantillon et al., 2016). Whilst not intended, these changes have provided a dress rehearsal for how rural general practice and training might be reconstituted and re-imagined in the future. We now have a unique opportunity to review and reappraise the activities, interactions and pressure points of work, learning and supervision in rural training practices. This includes appraising the opportunities to apply the learnings from remote supervision models (Wearne et al., 2013, 2015) more broadly and extend the roles of other members of the practice team (e.g., practice manager, receptionists, nursing staff) in supporting and sustaining effective trainee learning in rural general practice.

2. The project

This bulletin presents the research questions, provides an overview of the processes and refers to some findings from the first and second phases of a project – Reimaging and reconstituting training for rural general practice in a changing landscape – funded by Rural Medical Education Australia (RMEA). The project's aims are to: i) learn what changes to practice have arisen through the recent pandemic, ii) identify which new capacities are required, and iii) identify and appraise existing and new workplace training strategies that can be adopted to sustain meaningful learning through practice.

3. Research questions

What kind of changes in work and training practices were brought about through the recent pandemic and what new capacities are required to enact these practices optimally?

Of those changes, which present the greatest challenges for rural medical practitioners and other practice staff and why?

What strategies were or should be enacted to address these challenges and develop these capacities within the existing general practice workforce and for trainees?

How can those strategies best be developed and broadly enacted within rural general practice?

4. Phases of project

The project has three phases:

Phase 1 – Exploring the practices adopted in four selected rural general practices during the pandemic period

An ethnographic investigation of four rural practices through conducting individual interviews with the practice team (i.e., general practitioners, practice manager, receptionists, practice nurse, and registrars and students) about their experiences during the pandemic and how these might influence the development of registrar and medical student capacities in the future.

Phase 2 – Assessing the transferability of the findings from the four case studies through a survey

A survey developed to assess the findings from the four case studies to evaluate how the practices adopted in the four cases can be adopted more widely

Phase 3 – Development of models for general practice work and for approaches to learning to effectively adapt the model and procedures used in rural general practice settings and locations

Draft models of practice developed and shared with rural general practices to inform and secure wider validation of their utility and applicability and gauge the educational implications as well as disseminating the findings and models/tools/guidelines to support trainee learning

5. Initial findings

Changes in roles and activity of practice staff brought about by COVID-19

Prior to the interviews, informants (n=18) were asked to gauge the extent of the changes brought about by COVID-19 in general practice, the roles of the practice team, patient engagement and care, and teaching processes and outcomes. Most informants (11 out of 18) responded that there had been significant or major changes to their roles. In the interviews, these changes were elaborated. The informants indicated that these changes were initiated primarily by enhanced infection control measures, including the rapid expansion of telehealth. The key changes to the roles of the practice teams are presented in Table 1.

Table 1 Key changes to the roles of practice staff

Roles	Key Changes
General practitioners	enhanced focus on infection control stronger focus on information management and communication enhanced focus on team well-being greater effort required to facilitate registrar and student learning
Practice managers	practice re-organisation stronger focus on co-ordination of the practice team stronger focus on maintaining team morale stronger focus on information management and communication increased anxiety about practice income

Roles	Key Changes
Receptionists	greater engagement in health-related roles
	stronger focus on patient care and interaction
	stronger focus on patients' mental health and well-being triaging of patients
	stronger focus on addressing patient concerns
	reassuring and addressing patient concerns about infection
	greater communication by phone
	increased challenges communicating with older patients
Practice nurses	stronger focus on practice workflow and logistics
	stronger focus on patient triage
	stronger focus on patients' mental health and well-being
	greater focus on operational
	decision-making as compared to clinical decision-making
Registrars	telehealth becoming more difficult when the doctor has no pre-existing knowledge of the patient
	reduced socialisation and interactions with peers and colleagues resulting in an increase sense of isolation
	limited opportunistic teaching and supervision opportunities
	greater access to online education
	reduced patient consultations
	threats to progression of training
	greater autonomy
Medical students and junior doctors	learning to adjust to telehealth limited opportunities to perform physical examinations
	greater access to online education
	increased sense of camaraderie amongst medical student peers
	think increased awareness of value of peer learning e.g., practicing physical examinations
	increased sense of isolation



Changes in practice and learning arising

Findings from the interview analyses suggest that there had been significant changes within these four rural general practices in how the practice operates, and processes of patient engagement and care, because of the coronavirus pandemic and that these changes offer significant learning opportunities.

Findings reported in the following section relate to changes in practice including i) changes associated with the introduction of telehealth, and ii) changes in interactions with others (i.e., with patients and between practice team). The changes associated with telehealth are presented in Table 2.

Table 2 Challenges associated with telehealth

Examples
Challenges with technology for elderly patients
Challenges with poor internet access
Challenges with phone only consultations (absence of non-verbal cues etc)
Patient concerns about quality of care provided by telehealth management and communication
Unable to do physical examinations and/ or observations
Different appointment bookings – reception staff had to get used to triaging and booking different types of appointments - F2F, telehealth, video, carpark, hybrid
Several changes in terms of the Medicare requirements for how to bill telehealth
Purchasing additional equipment such as dongles, headsets, webcams and speakers
Installing systems for the doctors to access and wifi in the practice
Operation of HealthDirect platform Internet Connection

In response to COVID-19, additional infection control measures such as social distancing were introduced thus generating changes to the interactions with patients and those between the practice team. The primary concern reported by all practice staff was patient engagement and care associated with the introduction of telehealth. This issue was particularly critical with elderly patients. This involves elderly patients' readiness to learn and adapt to these new health services. From clinical point of view, it is challenging to make clinical decision via telehealth technologies. This potentially affects the quality of patient care.

On the operational side, changes in the appointment system generated by telehealth services (i.e., engaging with patients remotely or through electronic or phone consultations) require new ways of working and the learning of new concepts, procedures, and dispositions. For clinical practitioners (i.e., general practitioners and registrars), that conceptual development includes understanding how to effectively integrate increased telehealth technology usage into day-to-day practice.

Procedural development includes how to engage with patients remotely or through electronic or phone consultations, developing the kinds of fundamental capacities to conduct that work and to allow them to perform these tasks through remote means over sustained periods of time. Dispositionally, these practitioners need to be open to and come to value the worth of this technology and how it can assist them effectively in managing patients remotely. Yet, these capacities have been learnt and these procedures have evolved through practitioners' working and learning with this technology.

So, while telehealth technology has transformed this occupational practice, that transformation has arisen through practitioners' learning to understand and adapt their practice to this technology. In short, it has required the engagement of and learning by these practitioners as well as other practice staff (i.e., practice nurse and receptionists) in the process of providing patient care remotely.

Impacts of changes to trainee education

The informants' responses were categorised into six propositions

- 1. Trainees had different learning opportunities.
- Medical students had fewer opportunities to perform physical examinations.
- 3. Trainees experienced a sense of isolation.
- 4. There is a need for effective training and support for registrars and medical students in telehealth
- 5. The online learning provided to trainees was of high quality.
- 6. There is a need to maintain face-to-face collegial interactions between supervisors and registrars and medical students

From these themes, it is possible to suggest that there were both positive and negative impacts arising from these experiences. These are summarised in Table 3.

Table 3 Impacts of changes for trainees' education (i.e., registrars, junior doctors and medical students)

Positives	Negatives
Opportunities to develop new skills	Limited opportunities to perform physical examinations
Greater access to learning via online education	Limited opportunities to build rapport with patients
Greater engagement in problem- solving during clinical decision- making	Challenges of making clinical decisions via telehealth
Enhanced focus on infection control	Fewer learning opportunities, including face-to-face collegial interactions with supervisors
	Sense of isolation

6. Some tentative conclusions

Processes supporting learning and innovation occurring concurrently

As innovations comprise new practices, for them to be advanced, accepted, adopted, and become workplace norms, support for them in the workplace is likely to be essential. In representing who or what supports innovations in the selected rural general practices, the data present a similar pattern to those associated with the provision of opportunities. The data suggest that the practice team themselves are central to whether innovations are supported or not. Factors that are remote from these practices (i.e., government policy in educational provisions) are seen to have a lower level of importance than those close to the actual circumstances of practice. Noteworthy is that the practice team have included their patients as an essential factor in terms of support for innovations. Understanding and engagement by patients in the process of patient care remotely is essential.

Considerations for reshaping rural general practice

Given these changes in roles, our analysis found that there are seven bases for reshaping rural general practices for the future. These bases revolve around the whole practice team working more fully to manage patient care and ensure practice viability. Ongoing support and training are critical in this process.

More involvement and closer working relations amongst all staff in patient care

Throughout the processes it is important that all staff in the practice team are updated with changes to each other's role because there are increasing numbers of activities which need to be coordinated across the entire practice team. Also, it is important to ensure that certain activities such as phone-based risk assessment/triage performed by receptionists and practice nurses are for the purpose of reinforcement, not overlapping, to avoid confusion for patients.

2. Improved infection control practices

There is the need to have training procedures to ensure infection measures and control are consistently practiced by all staff in the practice. It is also important to develop patients' public health awareness and reinforce their practices of these infection measures.



3. Improved access to telehealth training

To develop understandings about and procedures for engaging with patients remotely, practice staff should be provided with training experiences in processes of effective patient assessment and therapeutic conversations. The aim is to develop the capacities to interact with patients remotely in a way that can maintain the quality of patient care via telehealth services.

Ways of working with patients requiring more assistance through telehealth (e.g., older patients)

Hesitancy regarding telehealth services, mostly from elderly patients, tends to derive from patients' readiness to learn and engage in the use of electronic technologies so it is important that patients are effectively engaged in therapeutic conversations to ease them through the process. Again, it is important that the capacities to interact with patients remotely are honed to assist and improve patient access through telehealth.

Enhanced focus on concerns about staff well-being and education

As staff mental health and well-being has emerged as a concern during COVID-19, there is the need for processes to monitor staff well-being through effective and regularly communications within the practice team, and procedures to provide immediate support to staff in need. As new capacities are required due to the introduction of telehealth, it is important that all staff to be provided with training in use of electronic technologies, phone-based risk assessment/triage, and inter-professional education opportunities.

6. Effective ways of including trainees (registrars, junior doctors and medical students) in telehealth consultations

Apart from training experiences in processes of effective patient assessment and therapeutic conversations, there should be the sequencing of trainees' direct involvement in telehealth consultations premised upon the readiness of trainees. If possible, their first few engagements in telehealth consultations might be monitored and guided by a more experienced practitioner to provide guidance, support and evaluation of how they are progressing.

7. Change in supervisory model

There is the need for alternative models for trainees' learning physical examination and communication skills when patient access is limited. This could involve training in effective patient assessment and therapeutic conversations via telehealth as outlined above, and practice processes ensuring trainees' opportunities to engage with general practitioners and other staff.

Reimagining and enactment of trainee education

To learn in and through clinical practice is to participate in that practice actively, and incrementally as comprehensively and thoroughly as possible. Therefore, as the circumstances of the practice changes, and some of these practices are likely to continue in the future, it seems essential to provide ways in which trainees can participate as fully as possible. In doing so, it is important that trainees be availed of the capacities to participate in this way.

From this small pilot study, it would seem the following are key focuses for developing trainees' capacities to participate fully in clinical practice through a sequenced set of experiences.

The sets and sequencing of activities here are premised upon incrementally preparing the trainee to engage in and conduct clinical consultations remotely using telehealth and is based on concepts of the learning curriculum in terms of engaging activities progressively through which they will build capacity and not be at risk of causing harm, which also considers the readiness of the trainee to participate in these activities.

Practice processes ensuring trainees' in-person clinical consultations with patients

Prior to engaging with patients remotely or through electronic or phone consultations, it is important that trainees have experience with in-person clinical consultations to develop the kinds of fundamental capacities to conduct that work and to allow them to perform these tasks through remote means. We know that human cognitive capacities have the ability to 'fill in' elements of human experiences that are not accessible or visible. We are able to simulate these (Barsolou, 2009). However, the ability to use those imagining processes arise from having had the initial experiences that enable those activities to occur.

Practice processes ensuring trainees opportunities to engage with general practitioners and other staff

Throughout the processes it is important that the trainees have the opportunity to engage with general practitioners and other practice staff as routinely as possible. This is important because practice activities increasingly need to be coordinated across the entire practice team.

3. Training in use of electronic technologies for all staff

If new electronic technologies or databases are needed for engaging with patients, trainees should have opportunities to develop these capacities prior to engaging with patients so that these technical aspects can be addressed competently and easily, and the trainees can focus on patient engagement

4. Training and experiences with in-phone based risk assessment/triage

Before engaging with patients remotely for full clinical diagnosis, they could be provided with experiences of engaging with patients in the way that the receptionists are now doing to make initial judgements about whether a remote consultation is appropriate initially and will suffice before coming in for a face-to-face, and also triaging patients. Again, the sequence here is of developing the capacities to interact with patients remotely in a relatively low risk activities and one in which communication skills can be honed and overall clinical diagnosis undertaken.

Training in effective patient assessment and therapeutic conversations via telehealth

Having developed understandings about and procedures for engaging with patients remotely, these trainees might well be provided with training experiences in processes of effective patient assessment and therapeutic conversations. These could most likely arise through listening in to those being conducted by a more experienced general practitioner to have access to models of approaches to and processes of these activities and then, perhaps engaging with a debrief with the general practitioner at the end of the consultation.

6. Trainees' involvement in telehealth consultations

Building upon what has been outlined above, there could be the sequencing of trainees' direct involvement in telehealth consultations premised upon the kinds of and readiness of trainees. If possible, their first few engagements in telehealth consultations might be monitored and guided by a more experienced practitioner to provide guidance, support and evaluation of how they are progressing.

Whilst these six stages are set out as bases by which trainees can come to engage in telehealth consultations, it is acknowledged that such a lockstep approach may not always be easy or possible to enact. However, it is set out as a pathway of experiences which are most likely to lead to positive outcomes for the trainees, whilst maintaining patient care and safety considerations.

7. References

Barsalou, L. W. (2009). Simulation, situated conceptualisation, and prediction. Philosophical Transcactions of the Royal Society B, 364(1521), 1281-1289.

Cantillon, P., D'Eath, M., De Grave, W., & Dornan, T. (2016). How do clinicians become teachers? A communities of practice perspective. Advances in Health Sciences Education, 21(5), 991-1008.

Wearne, S., Dornan, T., Teunissen, P. W., & Skinner, T. (2013). Twelve tips on how to set up postgraduate training via remote clinical supervision. Medical teacher, 35(11), 891-894.

Wearne, S. M., Dornan, T., Teunissen, P. W., & Skinner, T. (2015). Supervisor continuity or co-location: which matters in residency education? Findings from a qualitative study of remote supervisor family physicians in Australia and Canada. Academic Medicine, 90(4), 525-531.

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