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# General practice registrar perceptions on training medical students

## Background

Around Australia general practice teaching capacity is stretched as there are more learners at all levels. Vertical integration has been identified as a part of the solution. This system relies on involvement of registrars.

## Methods

This study involved semi-structured interviews with registrars and supervisors in the Northern Territory to determine their perceptions of supervising students in general practice.

## Results

Registrars described themselves as more thorough when they had a student, altering their consultations to set a good example and ensure professional credibility. They saw advantages for their patients and for their learning. Thoroughness slowed them down and was the main barrier for teaching, particularly if it resulted in seeing fewer patients and reducing their income. Lack of physical space constrained teaching opportunities.

## Discussion

Registrars are willing to be part of the medical education workforce in the NT. They require training in how to supervise students, and confidence in consulting skills. With increased access to consulting rooms, registrars can allow students to commence seeing patients before joining the consultation, improving learning opportunities and patient flow. Alternative models of employment could overcome time and financial constraints.

## Keywords

education, medical, undergraduate; rural health services

Over the last decade increasing numbers of medical students have undertaken placements in general practice.<sup>1</sup> This has been a result of the increase in medical school places across Australia and establishment of the Rural Clinical School program.<sup>2</sup> General Practice Education and Training (GPET) defines vertical integration as the 'coordinated, purposeful, planned system of linkages and activities in the delivery of education and training throughout the continuum of the learners' stages of medical education'.<sup>3</sup> Given the workforce shortages in rural and remote Australia, vertical integration of training, where registrars (who make up 11% of the rural GP workforce)<sup>4</sup> have an active role in teaching and supervising junior doctors and students, becomes a necessity not a choice.

Many general practice registrars reportedly have an interest in teaching and in one study 77.1% stated they would like to increase their teaching role.<sup>5</sup> However, general practice supervisors in the same study expressed concerns and only 52.1% felt their registrars had the capacity for clinical teaching in general practice.<sup>5</sup> Barriers identified by supervisors include limited physical resources, lack of financial resources, time and patient load, and variable commitment and skills of registrars.<sup>5-7</sup> Recommendations from these studies include teacher training for registrars, allocating fair teaching loads and ensuring evaluation of quality of teaching.

A 2011 literature review by GPET of vertical integration concluded there was little research into the views of registrars taking on teaching roles.<sup>3</sup> Given that the Northern Territory has a high Aboriginal and Torres Strait Islander

population (26.8%) with poor health outcomes, as well as workforce shortages,<sup>4,8</sup> it is important to consider the perspective of registrars on teaching in this challenging clinical context while they are themselves learning. Many medical students from Flinders University's four-year postgraduate degree, as well as interstate students completing electives, train in the Northern Territory. Many are supervised by registrars, particularly since in 2012, Northern Territory General Practice Education (NTGPE) made it a requirement for registrars to spend part of their training in Aboriginal health settings.<sup>9</sup> Hence, registrars are crucial for delivery of healthcare, and also supervision of learners in the healthcare system.

## Methods

The conceptual framework for this study was based on organisational development theory.<sup>10</sup> It was assumed that registrars see teaching as an additional responsibility in their working day. Changing their behaviour to increase their role in teaching would involve breaking down attitudes, minimising disincentives and realigning their goals using rewards.

Registrars from NTGPE were approached by email, inviting them to forward their contact details if they were interested in participating in a face-to-face or telephone interview. Semi-structured interviews were conducted with the registrars who volunteered. Two interviews were also conducted with supervisors to triangulate the data. Semi-structured interviews explored registrars' interest in teaching and their opinions of the rewards of and barriers to teaching medical students in general practice. Supervisors were asked about their own experiences and then asked to reflect on how they felt this differed from their observations of registrars. All interviews were audiotaped and transcribed.

**Table 1. Characteristics of general practice participants**

		Male	Female
Registrars	Junior (≤12 months of general practice training)	GPR1	GPR4 GPR8 GPR9
	Senior (≥12 months of general practice training)	GPR3*, GPR6	GPR2* GPR5* GPR7
Supervisors		GPS1*	GPS2

\*Primary medical degree gained overseas

**Table 2. Advantages or enablers**

Theme	Example
1. Registrars more thorough in consulting; model best practice to students, which potentially improves patient care.	'Sometimes we are quite busy and our examinations are rushed...and not systematic. But if you are with a med student, because they have to sit exams...they need to use systematic ways.... so whatever we do in front of them, examinations or history taking, our approach to the patient must be more formal.' (GPR2)
2. Students are able to reciprocate through providing company and professional support during consultations.	'I definitely enjoy the company...sometimes GP land can be quite isolating and so actually having someone that you can have a chat to, bounce things off and challenging you a bit... is kind of nice.' (GPR8)
3. Teaching facilitates reflective practice and general practice learning.	'I see it as my own continuing medical education because with students there all the time, you need to keep up to date a little bit more because you're discussing and showing them and telling them about the right thing to do... so you're questioning yourself why you're doing this so you can explain it, or what the evidence-based way behind the decision is. So I found to have students is the best way for me to keep up to date.' (GPR3)
4. Positive effect on general practice registrars' professional identity, including contributing to the learning of others.	'I think there is something of an apprenticeship style to the way we learn. I really like that and having good role models in medicine, particularly as a young student, really directs the way you think about your job, and I enjoy that more. More than in the academic sense, I enjoy teaching them how to be good people. I enjoy that kind of role modelling.' (GPR1)

All participants were offered their transcripts for verification.

The transcripts were used as the primary data for analysis. NVivo was used for data analysis steps, which included open coding, selective coding by AK, with constant comparison, and theoretical saturation performed by AK and LW in consultation with each other. Preliminary themes were critiqued by the authors and presented at the Northern Territory Teaching and Learning conference in March 2012 where feedback

informed the final themes. Ethics approval was gained from Flinders University Social and Behavioural Research Ethics Committee (Project 5396).

## Results

Nine registrars and two supervisors were interviewed. The registrars interviewed represented different age groups, gender, levels of general practice experience and locations of their initial medical training (*Table 1*). Eight

major themes were identified in the study: four advantages or enablers and four disadvantages or barriers.

## Advantages

The registrars reported that having a medical student involved in the consultation consistently made their consultations more thorough (*Table 2*, theme 1). Their definitions of thoroughness included taking a more detailed history and doing a more thorough examination, as well as ensuring management was up to date and evidence based. Motivations for thoroughness included setting a good example and maintaining professional credibility: 'You don't want to look like a turkey' (GPR6). In contrast to registrars, the supervisors did not alter their consultations when they had a student and hence did not report being slowed down. Thoroughness in consultations due to the presence of students made registrars feel that patient care was enhanced. This was further reinforced in the parallel consulting model, in which students had time with the patient before the registrar joined the consultation.

Registrars reported experiencing reciprocity when teaching medical students in general practice (*Table 2*, theme 2). Registrars enjoyed the company of the students, describing general practice as isolated in comparison with the hospital environment. They also found medical students could be helpful in practical ways, such as taking a blood pressure or being a chaperone for a patient. Desirable student characteristics included enthusiasm and being proactive about learning opportunities. Supervisors reported similar experiences to those of registrars.

As with supervisors, registrars recognised that teaching students improved their own reflective practice (*Table 2*, theme 3). Students were perceived as having up-to-date knowledge to offer them, such as informing them about the latest approach to clinical management in the hospital environment. Registrars also reported that teaching medical students contributed to their learning, particularly when preparing for exams. However, some registrars felt the additional stress of a student outweighed the benefits and preferred not to have a student when preparing for exams.

With regard to registrars' contribution to student learning, several registrars stated that

**Table 3. Disadvantages or barriers**

Theme	Example
1. Slowing down the doctor risks reducing patient care through running late, reducing rapport between registrars and patients, and causing stress for the registrars.	'Well it certainly increases your stress levels to run behind so it's much more stressful and then when you get really behind with the next patient you end up having to really cut them short and not give them necessarily the full treatment that they need.' (GPR4)
2. Lack of confidence in teaching, particularly giving meaningful feedback.	'...because I'm early on in my training I'm still learning a lot, and I think some of my ways that I go about a consult, I still don't think are fantastic. So I suppose sometimes I'd be concerned that I'm actually not teaching them the right things...' (GPR8)
3. Lack of practice-based systems to support medical student supervision, including scheduling and physical space.	'Space is a real issue in the remote communities I work in. There isn't even enough space for the doctors, so we can't give them their own room... so they're not getting that history and examination practice as much because they're more watching what we're doing.' (GPR9)
4. Teaching is poorly remunerated.	'At the moment, what they're asking people who are supervising students to do is either run really late or not teach much or cut your income, and you have to really want to teach and be dedicated to do that. Certainly it's not all about money but you can't be significantly worse off choosing to teach. If it's something that they really want to get people to do then it needs to be done differently.' (GPR7)

teaching reinforced their sense of developing clinical expertise and professional identity (*Table 2*, theme 4). All registrars indicated that they had had opportunities to teach in medical school and the hospital setting as junior doctors, and although it was acknowledged that having a passion for teaching was advantageous for students, only one registrar felt that teaching was an obligation of the profession, while two others disagreed and felt that teaching needed to be optional as an unwilling registrar might cause students to have a negative experience. A common view held by registrars and supervisors was that teaching provided registrars with a sense of worth through assisting those learning their profession (as they had been assisted) and helping to mentor students.

## Disadvantages

Registrars reported that being more thorough during consultations led to longer consultations, particularly if they also discussed the patient after the consultation (*Table 3*, Theme 1). This created stress for them as they tried to catch up, feeling anxious about patients kept waiting. Registrars

expressed concern that an unhappy patient made it harder to develop rapport and impaired the therapeutic relationship. Registrars also described the potential for patients to divulge less information in the presence of students, particularly relating to sensitive topics such as sexual or mental health. Supervisors also expressed this concern regarding sensitive information.

The registrars also expressed anxiety about their ability to teach, often proportional to their own perceived level of knowledge and confidence within general practice (*Table 3*, theme 2). Junior registrars were still mastering their own consultation skills, including overcoming uncertainty, and felt anxious that they may not be good role models. Confidence to supervise improved as they progressed in their training. Registrars reported varying degrees of past experience in teaching, including during medical school, but all agreed they would benefit from teacher training, particularly early on in their registrar training. Suggestions that would facilitate this role included short courses, such as Teaching on the Run,<sup>11</sup> key topics, such as giving feedback, and training on how to maximise the use of students in

tasks. Registrars described that their desire to teach was reduced if students lacked professionalism, enthusiasm, respect and self-drive.

Registrars felt that the organisational structures in place to facilitate student supervision were not ideal (*Table 3*, theme 3). No registrar had regular scheduled sessions for student supervision and most reported that they discovered only at the start of their day that they had been allocated a student. This was in contrast to the supervisors who often had a student teaching session as a programmed activity. Registrars reported that no practices allowed for extra time to be factored into their session while supervising a student. Some registrars stated that there was inadequate space in their practice for a student to have their own consultation room. Most registrars stated that teaching and supervision was inadequately remunerated, although a few felt financial considerations were irrelevant (*Table 3*, theme 4). None of the registrars received the practice incentive payment for teaching. All registrars interviewed were paid on a fee-for-service basis, so being delayed and seeing fewer patients reduced their income.

## Discussion

This study explored registrars' attitudes to their clinical teaching in general practice in the Northern Territory. All registrar participants in this study reported interest in clinical teaching and supervision. Although this might indicate a selection bias in the study sample, this finding is consistent with previous research.<sup>7</sup> Registrars reported the benefits to patients and to their own education, reducing professional isolation and providing learning opportunities. These perceived advantages are similar to those recognised by more senior colleagues.<sup>12</sup> In our study, registrars agreed that having students was beneficial for their patients because of increased thoroughness in the consultation. With a focus on setting a good example to the student, they described thoroughness as taking more detailed histories and doing physical examinations, as well as not cutting corners.

It became apparent that registrars felt that the faster pace and shorter consultations in general practice (compared with hospital practice) were not best practice and they did not want to set this example to students, feeling that a longer and more thorough consultation style provided students with a better example. Interestingly, the supervisors

interviewed did not report altering their consultation when they had a student, which is consistent with video data reported in the literature.<sup>13</sup> It is likely that this finding relates to the concept of dealing with uncertainty as a feature of normal general practice, which experienced general practitioners (GPs) are more comfortable with. One of the challenges for registrars is to develop risk-management strategies that enable safe clinical practice. This requires experience, so it is not surprising that a student observing this creates further anxiety. Murtagh's safety-diagnostic model of problem formulation,<sup>14</sup> which reinforces a focused history and examination in the general practice context may be an important tool to incorporate in teacher training for registrars.

Similarly to previous studies of GPs and family physicians, registrars identified that the barriers hindering vertical integration included time pressures, their own level of confidence in teaching and giving feedback, practice-based systems and infrastructure, including physical space, and financial constraints.<sup>12</sup> Registrars reported that time management was one of their greatest challenges when moving from the hospital system into general practice. Adding a student who slows them down created even more anxiety. Although time pressure has been recognized as the most significant barrier to clinical teaching in general practice for experienced GPs,<sup>12</sup> the compounding impact of time pressure on registrars still adapting to general practice consulting has not previously been demonstrated. The key barrier for registrars contributing to student teaching in general practice is not lack of interest in teaching, but the stress that occurs with running late. This could be addressed by reducing the number of patients booked per session, which requires allocation of student teaching sessions far enough in advance to allow for appointment schedule changes.

One well-recognised barrier to clinical teaching in general practice at all levels is the poor financial incentive.<sup>6</sup> With infrastructure and human resource allocation, practice incentive payments of \$100 per session do not compensate for lost productivity.<sup>15</sup> Registrars in our study agreed that teaching was undervalued and under-remunerated. It was interesting to note that none of the registrars interviewed received any of the practice incentive payments for teaching medical students.

The issues of time constraints and remuneration for student supervision could be addressed through

alternative funding models, for example, where registrars are directly salaried by the Australian General Practice Training Program during their training.

## Conclusion

Registrar involvement in practice-based clinical supervision seems to improve the registrar's approach to thoroughness in the consultation and lead to a greater commitment to evidence-based practice. Registrars report that they gain and reinforce knowledge by teaching and this assists them with preparation for examinations. The key barrier is not lack of interest in teaching, but the stress that occurs with aspects of time management. This could be alleviated by reducing the number of patients booked per session when the registrar is supervising a student. To ensure registrars' income is not affected, the practice incentive payment for teaching could be shared with the registrar, or registrars could be directly salaried.

Although the ability to teach was not identified as a major barrier, registrars in this study reported a desire for teacher training. This would lead to more confidence in supervision. Particular areas to address would include strategies to enhance the usefulness of the student, improved time management in consultations and strategies for dealing with uncertainty and conveying these to students.

## Implications for general practice

- Registrars in this study felt supervising a medical student made them more thorough, which was of benefit to them and their patients.
- Registrars were slowed down when supervising medical students, which could be addressed by fewer patient appointments, as long as registrar salary is not affected.

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