ORIGINAL SCIENTIFIC PAPER

SHORT REPORT

Rural general practice training: experience of a rural general practice team and a postgraduate year two registrar

Joseph Scott-Jones MBChB, FRNZCGP, FDivRHM, MMSc (General Practice) Dip Obs, Dip Geriatric Medicine, Dip Sports Medicine[1]; **Sarah Lucas** MBChB[2]

[1] The University of Auckland Academic Co-ordinator, Church Street Surgery, Opotiki, Bay of Plenty, New Zealand

[2] Church Street Surgery, Opotiki

ABSTRACT

INTRODUCTION: Undertaking training in rural areas is a recognised way of helping recruit staff to work in rural communities. Postgraduate year two medical doctors in New Zealand have been able to undertake a three-month placement in rural practice as part of their pre-vocational training experience since November 2010.

AIM: To describe the experience of a rural general practice team providing training to a postgraduate year two medical trainee, and to describe the teaching experience and range of conditions seen by the trainee.

METHODS: A pre- and post-placement interview with staff, and analysis of a logbook of cases and teaching undertaken in the practice.

RESULTS: The practice team's experience of having the trainee was positive, and the trainee was exposed to a wide range of conditions over 418 clinical encounters. The trainee received 22.5 hours of formal training over the three-month placement.

DISCUSSION: Rural general practice can provide a wide range of clinical experience to a postgraduate year two medical trainee. Rural practices in New Zealand should be encouraged to offer teaching placements at this training level. Exposure to rural practice at every level of training is important to encourage doctors to consider rural practice as a career.

KEYWORDS: Education, medical, graduate; general practice; rural health services

Introduction

Undertaking training in rural areas is a recognised way of helping recruit staff to work in rural communities.[1,2] Since November 2010, postgraduate year two medical doctors in New Zealand have been able to undertake a three-month placement in rural practice. Offering a place to a trainee might seem daunting for some rural medical practices and trainees may be concerned about the scope of experience they will achieve in rural general practice.

This case report describes the prior expectations held by staff on the impact of having a rural trainee in the practice and their reflections after the attachment had finished. It also describes the teaching undertaken and range of conditions that the trainee was exposed to during the three-month rural attachment.

Methods

The study was undertaken in a rural general practice serving just over 3000 patients, with a practice population that is 46% Maori. The practice is an established undergraduate teaching practice, but had not previously had any postgraduate year two trainees.

J PRIM HEALTH CARE 2013;5(3):243–248.

CORRESPONDENCE TO:
Joseph Scott-Jones
Church Street Surgery,
94 Church Street, Opotiki,
Bay of Plenty, New Zealand
drjo@opotikigp.co.nz

A semi-structured interview was held between the principal author and each staff member (three nurses, two receptionists and two administrators) before the attachment. After the attachment, the whole team engaged in an unstructured focus group discussion. The interviews were recorded and transcribed and the transcription checked and corrected by the staff members concerned. A process of developing themes was then undertaken using a process of crystallisation and thematic analysis by each author, who then compared findings which were triangulated for consistency with the staff concerned and further refined.[3]

During the attachment, the trainee kept a prospective log of patient details, and the trainer kept a log of teaching topics and times. The number of patients seen was also recorded in the practice management system. These logs were analysed using Excel spreadsheet tools. The teaching log excluded 'corridor conversations' and occasional shared consultations.

The study was given an exemption from ethical approval by the New Zealand Northern Region Y Ethics Committee.

Results

Results of staff interviews

The authors found comments made by the staff before the attachment fell into two main themes: expectations and concerns.

Expectations

Staff thought that having a trainee doctor would lead to an improved service to patients.

> We will have another doctor, so people won't wait so long. (Nurse)

A nurse also expressed the expectation that nurses would see fewer patients who were seen urgently on the day they made the request for appointment.

The trainee was expected to be able to improve the knowledge base of the clinical staff by asking questions.

> Because they're fresh out of university... (Receptionist)

Staff felt that having a trainee would improve job satisfaction.

> It's always good to have young people around. (Nurse).

Concerns

Having a trainee was expected to take up time. It was expected that the trainee would:

> ...slow the doctor down (Administrator).

> Taking time out for teaching will mean less time for patients (Administrator).

Some staff (an administrator and a nurse) expressed concern about the potential effect on the wellbeing of the practice team if the trainee was found to have a 'difficult' personality and not to fit into the team culture.

Staff also expressed some concern that after a three-month placement, patients and staff would notice a decline in service provision when the placement was completed.

> We will get used to having the trainee around, and patients will get used to seeing them. We might find it difficult to fill the gap when they've gone. (Nurse).

After the attachment

The practice team felt that patient care had been affected in that some patients had developed a therapeutic relationship with the trainee during the attachment, and reception staff expressed some anxiety that, having lost the service provision that the trainee brought to the practice, patients would again need to be 'doubled up' with the regular clinicians. Staff felt that during the attachment, patients had waited less time rather than more.

Staff felt that workload had not been affected and that during the attachment, practice nurses had been as busy as usual when the trainee was

working. Most teaching that surgery staff engaged in was 'by osmosis' over tea breaks and in reaction to needs expressed by the trainee.

Staff commented that they had come to enjoy having the trainee as part of the team, and that there was a personal 'gap' left behind for some members of the team. Surgery staff were universally positive about the experience and the general comment was, 'When can we have another one?'

Results of trainee logbook analysis

During the attachment the trainee recorded outcomes of consultations for each of 50 clinical days. This included a total of 418 clinical encounters, 379 of which were undertaken as the lead clinician, representing an average of 8.4 patients per day. The logbook records compared well with the number of patients seen in the practice management system, suggesting that data collection was complete.

The logbook findings are summarised in Table 1. A total of 65 patients were classified as having more than one presenting complaint, and 24 were assigned more than one diagnosis. Approximately 52% of the clinical encounters were with patients of self-declared European ethnicity, 44% with Maori and the remainder with patients of other ethnicities. In terms of patient gender, 51% were with male patients, 49% with female patients. The age distribution of patients seen is displayed in Figure 1. The demographic characteristics of the patients seen was in keeping with the profile of patients in the practice, suggesting a lack of bias of any particular group of patients towards the trainee.

Table 1. Trainee logbook summary analysis

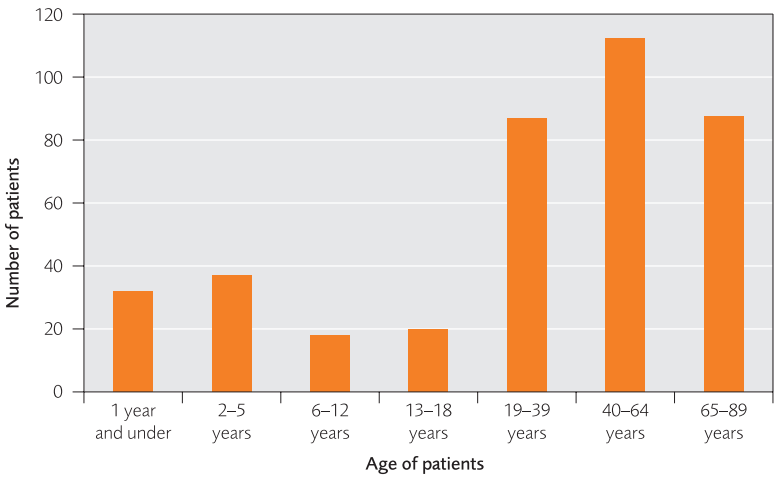
Recorded outcome of 418 clinical encounters over 50 days
• 510 presenting complaints
• 451 diagnoses
• 28 diagnoses classified as queries—e.g. query bronchitis
• 187 (45%) diagnoses classified as 'unclear'
• 140 (33%) had investigations (blood tests, microbiology cultures, x-rays, an electrocardiogram [ECG], or biopsies)
• 259 (62%) received prescriptions—15 were classified as 'back pocket' prescriptions (to be filled later if needed)
• 67 (16%) were referred to other agencies
• 37 (9%) were referred to a local team (physiotherapy, district nurse, other general practitioner, local hospital, social agencies)
• 29 (7%) were referred to specialists

WHAT GAP THIS FILLS

What we already know: Exposure to rural training increases the likelihood that a student will choose to work in a rural community.

What this study adds: General practice trainees can have exposure to a wide range of clinical issues and training opportunities in a rural practice.

Figure 1. Number of patients seen by age group



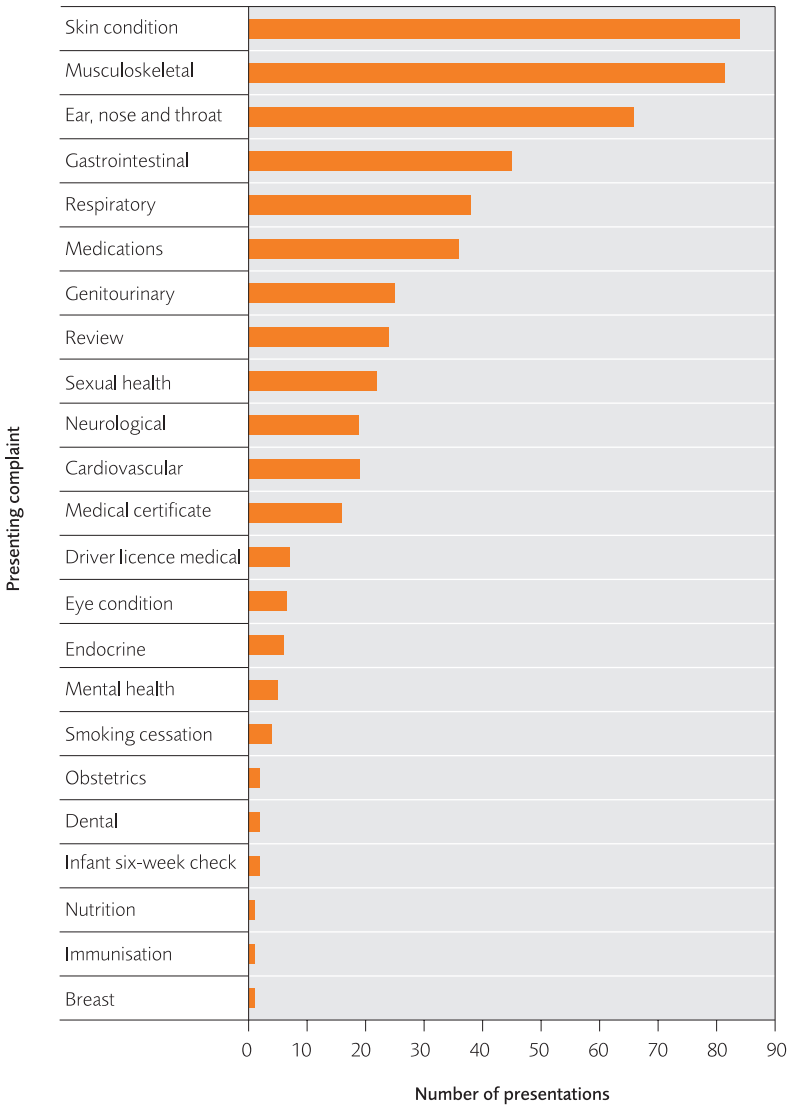
The range of presenting complaints and diagnoses made are detailed in Figures 2 and 3. As can be seen, there is a wide range of presenting complaints and diagnoses, as might be expected in a busy rural general practice.

The trainee identified a number of particular highlights in terms of clinical experience gained during the attachment (see Table 2).

Results of teaching load logbook analysis

The total teaching load during the attachment included 21 documented teaching sessions—be-

Figure 2. Number and type of complaints seen in patients presenting to trainee



tween 15 minutes and 4 hours long, and a total teaching time documented of 22.5 hours. On average, 30 minutes a day was spent in 'formal' teaching. This excludes 'teaching on the run' opportunities relating to discussion about cases over shared social encounters and discussion about specific cases outside of formal teaching sessions.

Teaching topics were driven by the trainee's self-determined learning needs. They included the use of the practice management system; review of each session's patients; management of complex problems; the 'telephone consultation'; discussion about gynaecology management; completing a 'drug-ectomy' (review and reduction of a patient's medicines); and performing a punch biopsy. Role plays were used to explore issues around immunisation, counselling and smoking cessation. Later in the course of the attachment, topics included cognitive behaviour therapy mapping and time scheduling in mental health consultations, the assessment of frailty, medication non-concurrence, the difficult patient who fails a drug test, headaches and cluster migraines, the use of personal judgment in applying guidelines, and patient directed choices.

Limitations

This study is based on a review of a single trainee's experience in a single practice and is not generalisable to other situations. The surgery staff reported impressions that patient waiting time had decreased and that nurse workload had not decreased during the attachment; however, the study was limited by a lack of collection of objective data on these issues during the attachment. The study was undertaken in the practice of the principal author and responses in interviews may have been biased due to the employment relationship.

Discussion

There is a shortage of rural general practitioners in New Zealand.[4,5] Rural general practice of necessity covers a wide range of clinical disciplines[6] and appropriate training is identified as an important issue by trainees.[7,8]

Exposure to training in rural areas appears to improve attitudes towards rural medicine[9] and to increase the likelihood that doctors will choose to work in rural areas.[2,10] The opportunity for postgraduate year two doctors to spend three months in a rural general practice as part of their training was introduced in 2010 in New Zealand, in order to ensure that doctors who were considering a career in primary care had the opportunity to experience general practice prior to committing to a formal general practice training scheme.

Placing trainees in general practice is often difficult—practices can be concerned about the im-

pact that the trainee will have on their workload, and the time it will take to be involved with teaching.[11] Trainees want to be exposed to a wide range of learning opportunities and to get as much clinical experience as they can at this point in their careers.[12] However, they are anxious about leaving the hospital environment and uncertain what level of experience they will get in general practice.[13] There is no literature about the experience of practices and postgraduate year two trainees in rural practice in New Zealand.

De Jong et al.[14] suggest that general practice trainees may not be exposed to chronic, psychosocial and circulatory diseases, and complex conditions. The use of a logbook to record what a trainee is experiencing may alert a trainer to gaps in clinical experience during an attachment that could then be addressed by purposeful identification of patients for trainees to care for.

The trainee logbook used in this study demonstrates that the mix of conditions seen by the trainee is similar to that seen in other studies and indicates the depth and breadth of experience a general practice trainee can achieve in a rural practice.[14,15]

Trainees can be prone to overconfidence in their diagnoses, and the degree of certainty a doctor has in a diagnosis may bear little correlation to whether that diagnosis is correct.[16,17] Experienced primary care physicians estimate that around 7% of their diagnoses are uncertain.[18] The degree of uncertainty recorded in this logbook (45%) reflects a healthy level of uncertainty in a trainee.

The log of teaching time does not reflect the total time spent in learning opportunities experienced by the trainee—the hidden curriculum of 'corridor consultation', social time, and learning from other members of staff 'by osmosis' is not quantified.

Conclusion

This study suggests that involvement in teaching at postgraduate level can be rewarding to all levels of practice staff and that rural general practice

Figure 3. Number and type of diagnoses made by the trainee

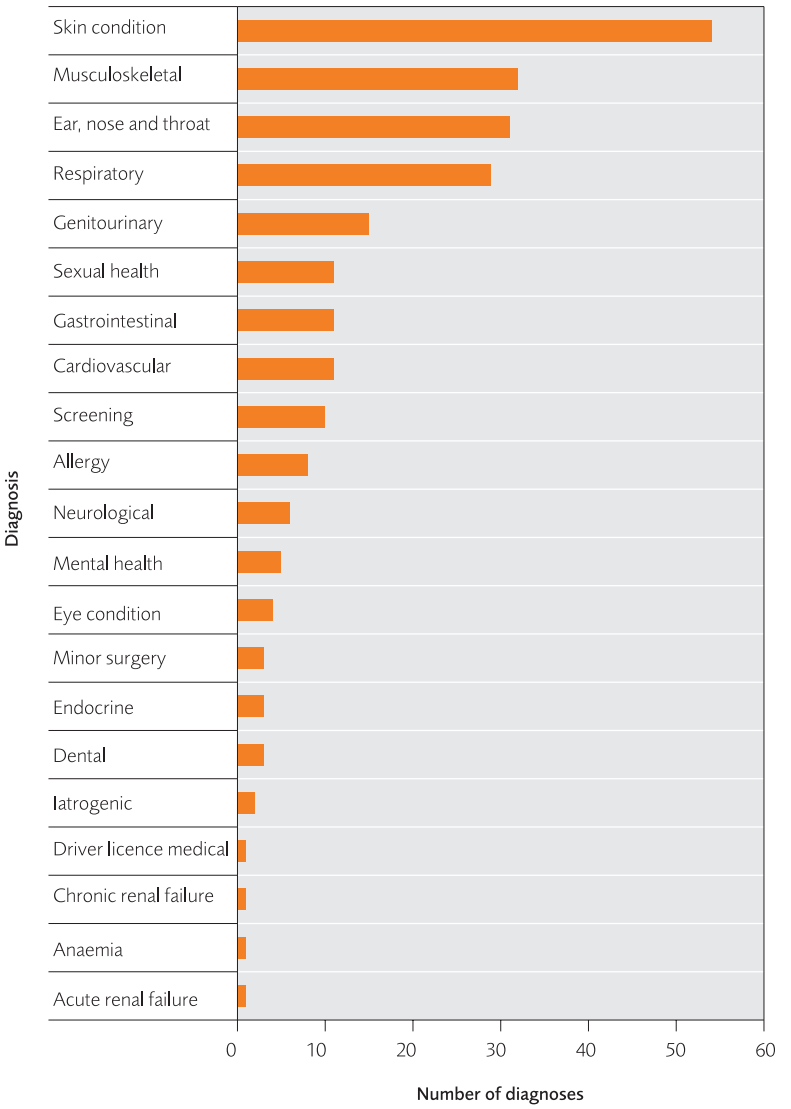


Table 2. Clinical experience identified as highlights by the trainee during the attachment

- Newly diagnosed diabetes
- Possible Kawasaki's disease
- Slipped upper femoral epiphysis
- Sudden delivery (Primary Care Response In Medical Emergency [PRIME] '111 call')
- Stingray barb in the hand
- Jadelle implant contraceptive insertion
- Intrauterine device (IUD) removal
- Minor surgical procedures (e.g. naevus removal)
- Intravenous (IV) therapy (rehydration, antibiotics)

can provide a wide range of clinical experience to a trainee. Rural practices in New Zealand should be encouraged by this report to offer teaching placements at this training level. Exposure to rural practice at every level of training is important to encourage doctors to consider rural practice as a career.

References

1. Eley D, Baker P. Does recruitment lead to retention? Rural Clinical School training experiences and subsequent intern choices. Rural Remote Health. 2006;6:511.
2. Williamson MI, Wilson R, Mckenchnie R, Ross J. Does the positive influence of an undergraduate rural placement persist into postgraduate years? Rural Remote Health. 2012;12:2011.
3. Silverman D. Doing qualitative research. 3rd edition. London: SAGE publications; 2010.
4. Pande M, Fretter J, Stenson A, Webber C, Turner J. Royal New Zealand College Of General Practitioners (RNZCGP) Workforce Survey 2005 Part 3: General practitioners in urban and rural New Zealand. Wellington: RNZCGP; 2006.
5. New Zealand Medical Association (NZMA). An analysis of the New Zealand general practitioner workforce—update 2009. Wellington: NZMA; 2009.
6. London M. Incentives for rural practice. N Z Med J. 2002;115(1161):1–3.
7. Farry P, Hill D, Martin I. What would attract general practice trainees into rural practice in New Zealand? N Z Med J. 2002;115(1161).
8. Minogue M, Goodyear-Smith F, Fishman T. The black hole of general practice manpower. N Z Fam Pract. 2005;32(5):317–22.
9. Blue AV, Chessman AW, Geesey ME, Garr DR, Kern DH, White AW. Medical students' perceptions of rural practice following a rural clerkship. Fam Med. 2004;36(5):336–40.
10. Jones AR, Oster RA, Pederson LL, Davis MK, Blumenthal DS. Influence of a rural primary care clerkship on medical students' intentions to practice in a rural community. J Rural Health. 2000;16(2):155–61.
11. Walters L, Worley P, Prideaux D, Rolfe H, Keaney C. The impact of medical students on rural general practitioner preceptors. Educ Health (Abingdon). 2005;18(3):338–55.
12. Dent AW, Crotty B, Cuddihy HL, Duns GC, Benjamin J, Jordon CA, et al. Learning opportunities for Australian prevocational hospital doctors: exposure, perceived quality and desired methods of learning. MJA. 2006;184:436–40.
13. Smith D. Barriers facing junior doctors in rural practice. Rural Remote Health. 2005;5(4):348.
14. De Jong J, Visser MRM, Wieringa-de Waard M. Exploring differences in patient mix in a cohort of GP trainees and their trainers. BMJ Open. 2011;1(2):e000318.
15. Hobbs J, Speers S, Herbert J, Nixon G, Poteet L, Hatch P. Clinical resources to teach components of a new family medicine clerkship curriculum. Fam Med. 2011;43(8):566–73.
16. Berner E, Graber M. Overconfidence as a cause of diagnostic error in medicine. Am J Med. 2008;121(5 Suppl):S2–23.
17. Friedman C, Gatti G, Franz T, Murphy G, Wolf F, Heckerling P, et al. Do physicians know when their diagnoses are correct? Implications for decision support and error reduction. J Gen Intern Med. 2005;20(4):334–39.
18. Gerrity MS, Earp JAL, DeVellis RF, Light DW. Uncertainty and professional work: perceptions of physicians in clinical practice. Am J Sociol. 1992;97(4):1022–51.

COMPETING INTERESTS
None declared.