

University of Wollongong

Research Online

Faculty of Health and Behavioural Sciences -
Papers (Archive)

Faculty of Science, Medicine and Health

2009

Patients' attitudes to general practice registrars: a review of the literature

Andrew D. Bonney

University of Wollongong, abonney@uow.edu.au

Lyn Phillipson

University of Wollongong, lphillip@uow.edu.au

Samantha Reis

University of Wollongong, sreis@uow.edu.au

Sandra C. Jones

University of Wollongong, sandraj@uow.edu.au

Donald Iverson

University of Wollongong, iverson@uow.edu.au

Follow this and additional works at: <https://ro.uow.edu.au/hbspapers>



Part of the [Arts and Humanities Commons](#), [Life Sciences Commons](#), [Medicine and Health Sciences Commons](#), and the [Social and Behavioral Sciences Commons](#)

Recommended Citation

Bonney, Andrew D.; Phillipson, Lyn; Reis, Samantha; Jones, Sandra C.; and Iverson, Donald: Patients' attitudes to general practice registrars: a review of the literature 2009, 371-378.
<https://ro.uow.edu.au/hbspapers/216>

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: research-pubs@uow.edu.au

Patients' attitudes to general practice registrars: a review of the literature

Abstract

Introduction With the population ageing, it is imperative for training practices to provide GP registrars with sound experience in managing the health problems of older persons, especially chronic conditions. However, it is reported that a significant proportion of these patients will be resistant to consulting registrars, with concerns regarding disruption of continuity of care being a significant factor. The challenge for training practices is to identify approaches to engage registrars in the management of older patients whilst maintaining patient satisfaction. This paper presents a review of the literature on patient attitudes to general practice registrars to better understand the nature and magnitude of the challenge, and to identify important research gaps. **Methods** Major electronic medical literature databases were searched for relevant articles using search terms including general practice, registrar, doctor-patient relationship, patient attitudes and elderly, for the period from 1980 to March 2009. The studies were analysed by methodology, content and theme. **Results** A total of 15 studies were identified that directly addressed patients' attitudes to GP registrars. Whilst there appeared an overall high acceptance of registrars by patients, increasing patient age was associated with more negative attitudes towards registrars, reduced trust and decreased satisfaction with communication. Presentations for chronic or emotional problems were associated with reduced willingness to consult registrars. Patients generally appreciated an ongoing involvement with their usual GP. **Discussion** These findings have implications for training practices and research directions. Demonstrating continuity of care through shared chronic disease management between supervisors and registrars is a possible model that meets registrars training and continuity needs. There is a need for quality research on the type and magnitude of problems affecting GP registrar encounters with older patients and, based on results from these studies to, create and assess models of registrar training involving older patients, that meet patients' needs for continuity of care.

Keywords

patients, practice, literature, review, registrars, general, attitudes

Disciplines

Arts and Humanities | Life Sciences | Medicine and Health Sciences | Social and Behavioral Sciences

Publication Details

Bonney, A., Phillipson, L., Reis, S., Jones, S. C. & Iverson, D. (2009). Patients' attitudes to general practice registrars: a review of the literature. *Education for Primary Care*, 20 (5), 371-378.

Patients' attitudes to general practice registrars: a review of the literature

Andrew Bonney MBBS MFM (Clin) DRANZCOG FRACGP

Senior Lecturer in General Practice, Graduate School of Medicine, University of Wollongong, Australia

Lyn Phillipson BAppSc (Phys) MPH

Research Associate

Samantha Reis BPsych (Hons) PhD

Research Associate

Sandra C Jones BA MBA MPH MAssessEval PhD

Associate Dean (Research) and Director

Centre for Health Initiatives, University of Wollongong, Australia

Don Iverson BSc MSc PhD

Pro Vice-Chancellor (Health), Executive Director, Illawarra Health and Medical Research Institute, University of Wollongong, Australia.

WHAT IS ALREADY KNOWN IN THIS AREA

- GP registrar training placements can affect continuity of care for patients in training practices.
- Older patients and patients with chronic illnesses tend to place high value on continuity.
- GP registrars see fewer of these patients, which affects registrars' clinical experience.

WHAT THIS WORK ADDS

- The available literature indicates that older patients, and patients with chronic conditions, are less positive in their attitudes to GP registrars than other patients.
- Continuity of care, trust, and a desire for meaningful communication have been identified as being significant in patient attitudes to GP registrars, especially for older patients. Patients poorly understand the role of the GPR.

SUGGESTIONS FOR FUTURE RESEARCH

- Quality research is needed to develop and evaluate strategies to assist patients in understanding GP training; more fully determine the effect that the nature of the presenting problem has on patients' attitudes and behaviours regarding GPRs and understand what constitutes acceptable continuity for patients in this context.

Keywords: consultation, continuity of care, older patients, patient preference, trainee

SUMMARY

With the population ageing, it is imperative for training practices to provide general practice registrars (GPRs) with sound experience in managing the health problems of older persons, especially chronic conditions. However, it is reported that a significant proportion of these patients will be resistant to consulting regis-

trars, with concerns regarding disruption of continuity of care being a significant factor. The challenge for training practices is to identify approaches to engage registrars in the management of older patients whilst maintaining patient satisfaction. This paper presents a review of the literature on patient attitudes to GPRs to better understand the nature and magnitude of the challenge, and to identify important research gaps.

Major electronic medical literature databases were searched for relevant articles using search terms including general practice, registrar, doctor–patient relationship, patient attitudes and elderly, for the period from January 1980 to March 2009. The studies were analysed by methodology, content and theme.

A total of 15 studies were identified that directly addressed patients' attitudes to GPRs. Whilst there appeared to be an overall high acceptance of registrars by patients, increasing patient age was associated with more negative attitudes towards registrars, reduced trust and decreased satisfaction with communication. Presentations for chronic or emotional problems were associated with reduced willingness to consult registrars. Patients generally appreciated an ongoing involvement with their usual GP.

These findings have implications for training practices and research directions. Demonstrating continuity of care through shared chronic disease management between supervisors and registrars is a possible model that meets registrars' training and patients' continuity needs. There is a need for quality research on the type and magnitude of problems affecting GPR encounters with older patients and, based on results from these studies, to create and assess models of registrar training involving older patients, that meet patients' needs for continuity of care.

INTRODUCTION

The benefits of a strong primary healthcare system in both improving health outcomes and reducing costs are well documented.¹ General practice and its equivalents hold vital roles in delivering primary healthcare in developed nations; hence training the general practitioners (GPs) of the future has real significance for the health of our communities. Vocational training in general practice follows an apprenticeship model² with registrars learning in the workplace from practising GPs. In many settings, including the UK and Australia, this training occurs predominantly in the community, within practices whose primary role is providing medical care for their patients.

Despite the desirability of this real-life learning environment, a conflict of expectations between patients and training practices can readily develop. A succession of registrars through a training practice is likely to disrupt the continuity and personalisation of care provided.³ A large UK study reported that being a training practice was significantly associated with a reduction in patient satisfaction and reduced continuity was proposed as a cause.⁴ Continuity of care has been shown to be associated with patient trust,^{5,6} patient satisfaction^{6,7} and improved patient outcomes.⁸ The importance of continuity is reflected in a Canadian study that found that a primary reason why patients chose not to see a family medicine trainee

was to maintain personal continuity with their regular doctor.⁹ While continuity of care is highly valued by GPs and their patients, it appears to assume special importance when chronic, complex or emotional problems are the focus of the encounter.¹⁰

Older patients in particular have a higher preference for seeing their 'personal' doctor than other age groups¹¹ and have been reported to be more negative in their attitudes to registrars.¹² Recent data from Australia¹³ support previous research in the UK^{14,15} showing that registrars see fewer older patients and fewer patients with chronic conditions than established GPs; this is occurring in an environment in which there has been a significant increase in GP consultation rates for older patients.^{16,17} GP chronic disease management rates are likewise increasing with recent Australian data demonstrating that one-half of GP–patient encounters now involve management of a chronic condition.¹⁷ Thus an unfortunate impasse is developing in that future GPs will require significant training in chronic disease management and in care of the elderly,¹³ but it is these groups who especially value personal continuity and who are less willing to consult registrars. The challenge for training practices is obvious – they will need to care for increasing numbers of older and chronically ill patients, whilst dealing with older patients' resistance to consulting with GPRs. Finding common ground between patient, practice and training needs is required to successfully address this problem. Commitment to the patient is a key feature of general practice,¹⁸ hence a thorough understanding of the way in which patients view registrars is required.

Thus the purpose of this project was to examine the extant literature concerning patient attitudes to primary care generalists-in-training (referred to as general practice registrars, or GPRs, in this paper) with the intention of determining the likely impact of those attitudes on GPR training, and identifying specific research gaps related to GPR training involving older patients.

METHODS

Uniform searches were conducted of major Australian and international medical literature databases (Ovid, Medline, Proquest 5000, Cochrane Database of Systematic Reviews and the Australasian Medical Index – AMI). Material was included if it was published from 1980 through March 2009 in a peer-reviewed journal, in English or with a translation in English, and directly measured some aspect of patient attitudes to doctors training in general practice, family medicine or general internal medicine.

Initial search terms used to guide the searches are listed in Box 1. Combinations of these search terms were used to generate lists of articles that

Box 1 Search terms*Initial search terms*

Primary care, general practice, family practice, family medicine, registrar\$, trainee\$, hospital registrar\$, interpersonal, continuity of care, personal care, personal doctor\$, doctor–patient relationship, physician–patient relationship, elderly, older, aged, geriatric, patient attitude\$ and patient satisfaction

Search algorithm

General practice registrar* OR general practice trainee* OR general internal medicine trainee* OR general internal medicine resident* OR family medicine trainee* OR family medicine resident* OR primary care resident* OR primary care trainee* OR family practice trainee* OR family practice resident* AND patient feedback OR patient trust OR patient satisfaction OR patient assessment OR patient view* OR patient experience* OR patient attitude* OR patient expectation* OR patient perception*

were scrutinised for papers relevant to the search purpose. Using keywords from the research papers identified, a standardised search algorithm was developed, outlined in Box 1.

Keywords in the algorithm were run in combinations in the same databases until no new material was identified. The algorithm was then applied to the PubMed database and saved, thereby allowing the first author to be notified of any newly published material. Links to related articles and reference lists were manually checked further for relevant papers. The identified studies were analysed by methodology, content and theme.

RESULTS

As of March 2009, 15 studies were identified that directly measured and reported on some aspect of patients' attitudes to GPRs (refer to Table 1).

Overview of the identified studies

Nine of the 15 studies were from single centres.^{3,9,19,20,22,23,25,26,28} Thirteen were cross-sectional surveys,^{3,9,12,19–24,26–28,30} one a prospective cohort study²⁹ and one a qualitative focus group discussion study.²⁵ The practice settings of the studies were diverse, including privately and institutionally funded facilities in Ireland,¹² UK,^{3,19} USA,^{20,21,23,26–28} Canada,^{9,22,25} Denmark²⁴ and Spain.^{29,30} Variables investigated included patient willingness to be seen and treated by a GPR,^{3,9,12,20,24} patient satisfaction with aspects of their contact with a GPR^{9,20–24,27,29,30} and factors that influenced these attitudes.^{3,9,12,20,22,25–28} Patients' attitudes to GPRs were often compared with their attitudes to their usual doctors or the

GPRs' supervisors.^{12,19,21,23,24,27,30} Five of the studies made use of validated instruments,^{21,23,26–28} in four studies tests for internal reliability were performed and in each case found acceptable.^{21,23,27,28} Two cross-sectional survey studies had been applied across multiple centres and used instruments with demonstrated internal reliability.^{21,27} There were no multi-method studies.

Patient responses

Satisfaction rates after having seen a GPR were reported as 87%,^{23,29} 90%,^{9,20} 93%²⁴ and as being equal to patient satisfaction with the GPRs' supervisors.²¹ When questioning whether patients would see GPRs again, studies reported positive responses of 71%,⁹ 74%³ and 87%.²⁴ Notable negative responses were 48% of patients preferring their usual doctor to manage chronic problems,³ rising to 55% in patients over 40 years;¹² in addition, 35% of patients over 60 years reported GPRs as not being easy to talk to.³ While the proportions varied across studies, a significant number of patients desired or appreciated the involvement of a senior GP in their management (41%,¹² 71%²⁰ and 94%²⁸) and reported not understanding the training system or the status of GPRs (17%,³ 47%,²⁴ 59%⁹ and 63%³⁰).

Influencing factors

Patient characteristics

Patients reported that they were more willing to see a GPR for a perceived minor problem¹² or for a pressing medical concern.^{3,12} However, seeing their usual doctor was more important if they presented with a personal¹² or chronic problem.^{3,12} One study reported that patients aged over 40 years held more 'negative' attitudes towards GPRs¹² and another that increasing age of the patient was inversely related to measures of trust in GPRs.²⁸ In the latter paper, female gender and higher education were associated with increased trust in the GPR.²⁸ Urban patients¹² and patients with low social support²⁶ were reported to be more likely to express negative attitudes towards GPRs. Patients who had not seen a GPR before had more negative attitudes,¹² and having a satisfactory prior experience with a GPR was predictive of positive attitudes.²⁰ A positive patient attitude to the teaching programme was shown to be a positive motivator to seeing a GPR⁹ and predictive of increased satisfaction with attending a teaching practice.²²

Practice characteristics

Practice factors that positively influenced attitudes included the practice having a clear team structure headed by a senior family physician,²⁵

Table 1

Author/s	Design and setting	Main findings
Allen and Bahrami (1981) ³	Single-centre cross-sectional survey, post-consultation, of 258 consecutive patients in an NHS general practice in the UK	Seventy four percent of patients would see a GPR again; 48% of patients did not want their chronic illness treated by GPR; 75% were happy to see any doctor for an urgent problem; 35% of older patients (> 60 years) found the GPR not easy to talk to
Bradley (1981) ¹⁹	Single-centre cross-sectional survey, pre- and post-consultation, of 248 consecutive patients in an NHS general practice in the UK	Patients had the same expectations of GPR as of the senior GP for management and communication; 55% of patients were not seeing their doctor of choice when seeing a GPR; fewer follow-up appointments made by GPRs; 48% of patients found the consultation was not relaxed
Reichgott and Schwartz (1983) ²⁰	Single-centre cross-sectional survey, pre-consultation, of 195 patients using mailed questionnaires, 'small' post-consultation survey of 46 patients, in an outpatients' general internal medicine faculty group practice in the USA	Seventy three percent of private patients would allow resident participation in care; prior positive experience most important predictive factor; post visit – 70% fully satisfied, 20% partially satisfied; 71% of patients wanted faculty physician involvement at every visit, accepted residents if the responsibilities of trainees were carefully delegated and supervised; patient dissatisfaction associated with not knowing beforehand a resident was to be involved in their care
Rodney <i>et al</i> (1986) ²¹	Multi-centre cross-sectional patient satisfaction survey of 153 patients of resident and faculty physicians in three outpatient clinical centres of a hospital-based family medicine residency in the USA	Patients reported residents' care to be as satisfying as that received from faculty physicians
Gerace and Sangster (1987) ²²	Single-centre cross-sectional satisfaction survey of 195 patients in a family medicine residency teaching centre in Canada	Four variables were identified as being important in determining patient satisfaction: if patients felt that the time spent with the supervising physician was adequate and explanations about their care and the teaching programme were clear; if the patient felt comfortable expressing concerns about the teaching programme to permanent staff; if the patients had a positive attitude to the teaching programme; and if the patients felt the supervising physician was accessible
Sheets <i>et al</i> (1991) ²³	Single-centre cross-sectional survey, post-consultation, of 254 patients in a university ambulatory care facility, teaching family medicine residents, in the USA	No significant difference in satisfaction ratings with gynaecological care between faculty family physicians and residents
Murphy (1995) ¹²	Multi-centre cross-sectional survey, pre-consultation, of 1510 consecutive patients from 10 private general practice teaching practices in Ireland	Ninety percent of patients thought having a GPR an advantage; 77% expected usual standard of care when seeing a GPR and 51% were as comfortable with a GPR as their usual doctor. Attitudes were more negative if had never seen a GPR, male patient, patient aged over 40 years or urban practice. Forty one percent prefer to see their usual doctor after seeing trainee; 48% prefer to have long-standing problem like hypertension treated by their usual GP; 45% of patients have no preference whether a GPR or GP treats an urgent problem (sick child with a high temperature); 35% of patients were not as comfortable with a GPR as their usual GP; and 55% prefer to discuss relationship problems with their usual GP
Fuglsang <i>et al</i> (1996) ²⁴	Multi-centre cross-sectional survey, post-consultation, of 405 consecutive patients from 12 general practice teaching practices in Denmark	Ninety three percent of patients were fairly or very satisfied with the GPR consultation; 87% fairly sure would see GPR again; 85% thought the GPR was as easy to talk with as own doctor; 47% did not feel fully informed of training system
Brown <i>et al</i> (1997) ²⁵	Single-centre qualitative – five focus groups with a total of 42 patients who had attended a single family medicine teaching unit in Canada for more than 15 years	Patients not particularly affected by the constant change in residents on the team. Relationship building, team structure and professional, responsible staff attitudes contributed to continuity and long-term attendance by patients. Access valued by patients, interactions with nurse and reception staff important to patient acceptance of the training practice

Table 1 continued

Author/s	Design and setting	Main findings
Boutin-Foster and Charlson (2001) ²⁶	Single-centre cross-sectional survey of 74 patients with whom their resident physician had identified a problematic relationship, and 77 patients identified as having a satisfying physician-patient relationship; at an academic general internal medicine outpatient unit in the USA	Residents in problematic doctor-patient relationships reported by patients as being less accessible and less able to manage their medical complaints
Yancy <i>et al</i> (2001) ²⁷	Multi-centre cross-sectional survey, post-consultation, of 288 consecutive patients from four general internal medicine ambulatory care clinics from a university teaching hospital and Veterans Affairs hospital in the USA	Patients generally satisfied, though patients of faculty physicians were more likely to be highly satisfied than patients of residents. After controlling for patient characteristics, doctor's personal manner and respect toward the patient were the most important factors in satisfaction
Bonds <i>et al</i> (2004) ²⁸	Single-centre cross-sectional interview survey, post-consultation, of 217 randomly selected patients of a general internal medicine academic medical centre in the USA	Overall high levels of trust in residents; high trust in the doctors of the facility predicts high trust in the resident; gender concordance between patient and resident promoted trust; older patients less likely to be high trusters as were patients of female residents; 94% of patients felt better knowing a supervising physician was involved in their care
Ruiz-Moral <i>et al</i> (2007) ²⁹	Multi-centre prospective cohort study of 702 consecutive patients from 10 family medicine teaching units in Spain; pre-consultation questionnaire and post-consultation phone survey	Residents fulfilled patients' expectations of their consultations acceptably; 87% of patients were satisfied; no difference with age. Patients' most common expectations were the doctor showing an interest and listening, information about a diagnosis, sharing problems and doubts; rate of main expectations met was 76.5%
Caballero Jauregui <i>et al</i> (2008) ³⁰	Multi-centre cross-sectional survey of 220 patients from family medicine teaching centres in Madrid, Spain	Ninety two percent of patients had the same trust in the resident as the family physician tutor; high satisfaction with time spent, listening and attention of the resident; 63% did not know exactly what a family medicine resident was; 60% did know a resident was a doctor
Malcolm <i>et al</i> (2008) ⁹	Single-centre cross-sectional survey, pre-consultation, of 251 consecutive patients in a private family medicine practice in Canada	Satisfaction with care and overall comfort ranked excellent at around 90% each; 71% would choose to have residents involved in their care again; female patients preferred female residents; most common reason for not seeing a resident was to continue relationship with their own doctor (54.2%)

clearly defined delegation and supervision by the senior physician,²⁰ perceived accessibility of the senior physician²² and the patient having established trust in the medical facility itself.²⁸ Dissatisfaction was associated with the practice not informing patients beforehand that a trainee was to be involved in their care.²⁰

Characteristics of the GPR

Gender concordance between the GPR and the patient was reported as being associated with increased patient trust,²⁸ and for female patients associated with the patient feeling more comfortable with the GPR.⁹ Patients were more likely to be dissatisfied with their relationships with GPRs if the GPR was perceived as being less accessible and less able to manage the patient's medical problems.²⁶ The GPRs' level of interpersonal and communication skills was reported to be associated with patient satisfaction in two studies.^{27,29}

DISCUSSION

Patient attitudes to GPRs, as described in the literature, can be grouped into the broad domains of patient acceptance, desire for continuity of care, trust, and a desire for meaningful communication. It is probable that these domains overlap. They are influenced by factors pertaining to the patient, the training practice and/or the GPR.

Patient acceptance of being treated by GPRs

Overall, patient acceptance of GPRs and satisfaction with them being involved in their care has been shown to be high, consistent with research regarding patient attitudes to being involved in undergraduate medical education.³¹⁻³³ Patients generally expressed an altruistic attitude to being involved in training the doctors of the future, and

this aided acceptance.^{9,22} However, there were some noteworthy exceptions, with reduced patient acceptance being associated with older patient age,¹² the management of chronic conditions^{3,12} and patient presentations with personal or emotional concerns.¹²

Patient attitudes to continuity of care

Patients seeing GPRs generally valued follow-up by their usual GP,¹² usual GP involvement in their care^{20,28} or the accessibility of their usual GP.²² This, and the relative reluctance of older patients and those with chronic conditions to be treated by GPRs,¹² is consistent with the medical literature on continuity of care.^{6,34} Previous research has shown continuity means more to patients who share a history of significant events with their physician,³⁵ describing the sense of security that access to a regular GP provides to those who are chronically ill.³⁶ These factors work against the willingness of these patients to see a newly introduced GPR.

Patient trust

Along with a higher value placed on personal continuity,³⁴ and less positive attitudes to GPRs,¹² older patients were reported to have reduced trust in GPRs.²⁸ The association between continuity, patient trust and satisfaction has been previously discussed in the literature.^{6,37} Trust in the treating primary care physician has been shown to be positively associated with patient satisfaction, the duration of the doctor–patient relationship and the number of visits to the physician.³⁷ The GPR, with a relatively brief period of time in a practice, is unlikely to have the opportunity to establish the level of trust that his/her supervisors have previously established. In the GPRs' favour is the description of 'institutional trust', whereby the patients' trust in a medical facility carried over to include trust in the staff of the facility.²⁸ Thus patients may initially place trust in the GPRs based on their trust in their usual GP or their usual medical practice as a whole.

Desire for meaningful communication

Some dissatisfaction with being treated by GPRs arose from problems with communication, either with the practice about the training programme^{20,24} or with the GPRs themselves.^{3,27} It has been recognised elsewhere that patients' understanding of the role of doctors-in-training requires improvement^{38,39} as does communication around transfer of care between doctors.⁴⁰ Patients with chronic illnesses have reported less satisfactory doctor–patient communication if they did not have personal continuity with a regular GP,³⁶ a difficulty which has the potential to be

compounded by the relative inexperience of the GPR.²⁷

Implications for training practices and future research

The literature creates a picture of the challenges that GPR training practices encounter. First, patients, and especially older patients, may not understand what either a training practice or a GPR is. Developing and assessing strategies to help patients understand both of these concepts should be a research priority. Second, patient acceptance of seeing GPRs appears to be dependent on whether the type of condition stimulating the visit was acute, chronic or personal. This issue is central to the overall problem but has not been thoroughly explored and requires additional research. Whilst overall satisfaction with GPRs' visits has been reported as being high, there has not been any differentiation according to the type of problem managed, and this warrants further exploration, including research that focuses on understanding what actually transpired during the encounter, for example by direct observation.⁴¹ Third, continuity appears to be a critical factor in the formulation of attitudes and subsequent behaviour related to GPRs. However, patients' concepts of what constitutes appropriate continuity in this context are not well understood and may include accessibility of their usual GP, involvement of their usual GP or usual GP involvement in follow-up. Research specific to the context of training practices is needed to understand what continuity means to patients and how it must be operationalised for it to be acceptable to them.

Considering the above, an immediate way forward would be to investigate various 'GPR training models' that have as their central focus continuity of care. One approach could be a shared-care model of chronic disease management between the GP and the GPR, with clearly defined delegation by the supervising GP.²⁰ This would be aided by transparent practice team structures²⁵ and the availability of the supervising GP as required.²² Patients frequently expressed a lack of knowledge of the way that general practice training functions.^{3,9,24,30} Thus the 'model' would need to be sufficiently flexible so patients' concerns could be addressed which should, in turn, enhance patient acceptance and trust.²² Promoting the role patients have in training the GPs of the future has the potential to increase patient enthusiasm for seeing GPRs.^{9,22}

CONCLUSIONS

In relation to the extent of general practice training undertaken worldwide, there is a paucity of research into the attitudes of patients towards GPRs and the impact of these attitudes on training

opportunities. The authors were able to identify just 15 papers published from 1980 onwards.

The available literature indicates that enquiry into patient understandings of trust, continuity of care and having a personal doctor and how these are affected by GPRs has the potential to improve patient acceptance of GPRs, especially amongst older patients and those with chronic or personal conditions. Practice organisational structures, dynamics and communication policies as well as the attitudes and communication skills of the GPRs also may affect patient attitudes and offer other avenues for research. Research should focus on the development of practice-based 'models' that facilitate engagement of registrars in a meaningful way in the management of older and chronically ill patients, provide excellent training opportunities and meet patients' needs for continuity of care. In this era of increasing threat to continuity,⁴² demonstrating to the GPs of the future this central tenet of general practice is critical. Given the complexity of the issue and the role that context plays, it is suggested that multi-method research strategies are most appropriate.⁴³

To address these challenges in an efficient and effective manner, collaborative research involving GP professional bodies, training groups and academia is suggested.

Acknowledgement

Ms Elizabeth Scally for research assistance.

Ethical approval

The authors' institution did not require ethics approval for this study.

Funding

CoastCityCountry Training, a recognised provider of GP training in NSW, Australia.

Conflicts of interest

Dr Bonney receives payment from CoastCityCountry Training Ltd in his role as a GP supervisor.

References

- 1 Starfield B (1998) *Primary Care. Balancing health needs, services and technology* (2e). Oxford University Press: New York.
- 2 Sturmberg J and Heard S (2004) General practice education in Australia. Current issues. *Australian Family Physician* **33**: 353–5.
- 3 Allen H and Bahrami J (1981) Patients' attitude towards trainees. *Journal of the Royal College of General Practitioners* **31**: 680–2.
- 4 Baker R (1996) Characteristics of practices, general practitioners and patients related to levels of patients' satisfaction with consultations. *British Journal of General Practice* **46**: 601–5.
- 5 Hjortdahl P and Laerum E (1992) Continuity of care in general practice: effect on patient satisfaction. *BMJ* **304**: 1287–90.
- 6 Baker R, Mainous III AG, Gray DP and Love MM (2003) Exploration of the relationship between continuity, trust in regular doctors and patient satisfaction with consultations with family doctors. *Scandinavian Journal of Primary Health Care* **21**: 27–32.
- 7 Saultz JW and Albedaiwi W (2004) Interpersonal continuity of care and patient satisfaction: a critical review. *Annals of Family Medicine* **2**: 445–51.
- 8 Worrall G and Knight J (2006) Continuity of care for older patients in family practice: how important is it? *Canadian Family Physician* **52**: 754–5.
- 9 Malcolm CE, Wong KK and Elwood-Martin R (2008) Patients' perceptions and experiences of family medicine residents in the office. *Canadian Family Physician* **54**: 570–1, 571, e571–6.
- 10 Guthrie B and Wyke S (2006) Personal continuity and access in UK general practice: a qualitative study of general practitioners' and patients' perceptions of when and how they matter. *BMC Family Practice* **7**: 11.
- 11 Kearley KE, Freeman GK and Heath A (2001) An exploration of the value of the personal doctor–patient relationship in general practice. *British Journal of General Practice* **51**: 712–18.
- 12 Murphy AW (1995) Opening Pandora's box: patients' attitudes towards trainees. Dublin General Practice Vocational Training Scheme Third Year Group 1991–1992. *Family Practice* **12**: 318–23.
- 13 Spike N and Britt H (2006) *The Clinical Activities of VMA Registrars in Each Stage of Training*. Final report to Victoria Metropolitan Alliance. Monash University: Melbourne.
- 14 Carney TA (1979) Clinical experience of a trainee in general practice. *Journal of the Royal College of General Practitioners* **29**: 40–4.
- 15 Stubbings CA and Gowers JI (1979) A comparison of trainee and trainer clinical experience. *Journal of the Royal College of General Practitioners* **29**: 47–52.
- 16 Hippisley-Cox J, Fenty J and Heaps M (2007) *Trends in Consultation Rates in General Practice 1995 to 2006: analysis of the QRESEARCH database*. Final Report to the Information Centre and Department of Health (accessed 5 May 2009). Available from: www.ic.nhs.uk/webfiles/publications/gp/QRESEARCH%20Consultation%20Rates%20Report%20FINAL.pdf.
- 17 Britt H, Miller G, Charles J et al (2008) *General Practice Activity in Australia 2006–07*. General practice series. Australian Institute of Health and Welfare: Canberra.
- 18 McWhinney I (1997) *A Textbook of Family Medicine* (2e). Oxford University Press: New York.
- 19 Bradley NC (1981) Expectations and experience of people who consult in training practice. *Journal of the Royal College of General Practitioners* **31**: 420–5.
- 20 Reichgott MJ and Schwartz JS (1983) Acceptance by private patients of resident involvement in their outpatient care. *Journal of Medical Education* **58**: 703–9.
- 21 Rodney WM, Quigley CB, Werblun MN, Sumbureru D and Shear CL (1986) Satisfaction of continuity patients in a family medicine residency—validation of a measurement tool. *Family Practice Research Journal* **5**: 167–76.
- 22 Gerace T and Sangster J (1987) Factors determining

- patients' satisfaction in a family practice residency teaching center. *Journal of Medical Education* **62**: 485–90.
- 23 Sheets KJ, Caruthers BS and Schwenk TL (1991) Patient satisfaction with gynaecologic care provided by family practice resident physicians. *Family Practice Research Journal* **11**: 421–8.
- 24 Fuglsang H, Olesgaard P, Pedersen NF and Olesen F (1996) [Patients' attitudes towards and satisfaction with interns in general practice. Practicing interns and patient satisfaction.] *Ugeskr Laeger* **158**: 5768–72.
- 25 Brown JB, Dickie I, Brown L and Biehn J (1997) Long-term attendance at a family practice teaching unit. Qualitative study of patients' views. *Canadian Family Physician* **43**: 901–6.
- 26 Boutin-Foster C and Charlson ME (2001) Problematic resident–patient relationships: the patient's perspective. *Journal of General Internal Medicine* **16**: 750–4.
- 27 Yancy WS Jr, Macpherson DS, Hanusa BH *et al* (2001) Patient satisfaction in resident and attending ambulatory care clinics. *Journal of General Internal Medicine* **16**: 755–62.
- 28 Bonds DE, Foley KL, Dugan E and Hall MA (2004) An exploration of patients' trust in physicians in training. *Journal of Health Care for the Poor and Underserved* **15**: 294–306.
- 29 Ruiz-Moral R, Perula de Torres LA and Jaramillo-Martin I (2007) The effect of patients' met expectations on consultation outcomes. A study with family medicine residents. *Journal of General Internal Medicine* **22**: 86–91.
- 30 Caballero Jauregui M, Salamanca Sanchez-Escalonilla MT, Saniger Herrera JM *et al* (2008) Do our patients know what a family medicine resident is? *Atencion Primaria* **40**: 15–19.
- 31 Cooke F, Galasko G, Ramrakha V, Richards D, Rose A and Watkins J (1996) Medical students in general practice: how do patients feel? *British Journal of General Practice* **46**: 361–2.
- 32 Choudhury TR, Moosa AA, Cushing A and Bestwick J (2006) Patients' attitudes towards the presence of medical students during consultations. *Medical Teacher* **28**: e198–203.
- 33 Larsen K and Perkins D (2006) Training doctors in general practices: a review of the literature. *Australian Journal of Rural Health* **14**: 173–7.
- 34 Nutting PA, Goodwin MA, Flocke SA, Zyzanski SJ and Stange KC (2003) Continuity of primary care: to whom does it matter and when? *Annals of Family Medicine* **1**: 149–55.
- 35 Mainous III AG, Goodwin MA and Stange KC (2004) Patient–physician shared experiences and value patients place on continuity of care. *Annals of Family Medicine* **2**: 452–4.
- 36 von Bultzingslowen I, Eliasson G, Sarvimaki A, Mattsson B and Hjortdahl P (2006) Patients' views on interpersonal continuity in primary care: a sense of security based on four core foundations. *Family Practice* **23**: 210–19.
- 37 Hall MA, Zheng B, Dugan E *et al* (2002) Measuring patients' trust in their primary care providers. *Medical Care Research and Review* **59**: 293–318.
- 38 Santen SA, Hemphill RR, Prough EE and Perlowski AA (2004) Do patients understand their physician's level of training? A survey of emergency department patients. *Academic Medicine* **79**: 139–43.
- 39 Santen SA, Rotter TS and Hemphill RR (2008) Patients do not know the level of training of their doctors because doctors do not tell them. *Journal of General Internal Medicine* **23**: 607–10.
- 40 Roy MJ, Herbers JE, Seidman A and Kroenke K (2003) Improving patient satisfaction with the transfer of care. A randomized controlled trial. *Journal of General Internal Medicine* **18**: 364–9.
- 41 Stange KC, Flocke SA, Goodwin MA, Kelly RB and Zyzanski SJ (2000) Direct observation of rates of preventive service delivery in community family practice. *Preventive Medicine* **31**: 167–76.
- 42 Freeman GK, Olesen F and Hjortdahl P (2003) Continuity of care: an essential element of modern general practice? *Family Practice* **20**: 623–7.
- 43 Stange KC, Miller WL and McWhinney I (2001) Developing the knowledge base of family practice. *Family Medicine* **33**: 286–97.

Correspondence to: Andrew Bonney, c/o Culburra Beach General Practice, 14 The Lake Circuit, Culburra Beach, NSW, Australia 2540. Email: abonney@uow.edu.au

Accepted July 2009