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General practice registrars

Attitudes of older patients

Background

Previous research indicates that older patients may be less willing to consult general practice registrars (GPRs), reducing training opportunities in chronic/complex care. This survey explores older patients' attitudes in order to inform models of interaction that would be acceptable to patients.

Methods

Ten training general practices distributed questionnaires for self completion to 50 patients aged 60 years and over. Chi-square, Spearman's rho and logistic regression were used for analysis.

Results

The response rate was 47%. Ninety-six percent wanted ongoing contact with their general practitioner if they saw a GPR. Twenty-four percent were comfortable with GPR chronic/complex care, increasing to 73% when there was contact with their usual GP during the consultation.

Discussion

This study quantifies a widespread reluctance among older patients to GPRs managing chronic/complex conditions, which could be significantly improved by maintaining a relational link with their regular GP. These results give guidance for training practices and warrant further investigation.

Keywords: general practice, research; education, medial, vocational; education aging



The aging population has brought with it a well described increase in general practice activity in the care of older patients and those with chronic medical problems.¹ General practice needs to ensure adequate training for general practice registrars (GPRs) in the management of the elderly and chronically ill as these patients will represent a significant proportion of future general practitioners' caseload.² However, GPRs' contact with older patients may be hampered by the preference of older patients,^{3,4} and those with chronic problems,^{4,5} for personal continuity in their general practice care. This preference may contribute to the lower consultation rate of older and chronically ill patients with GPRs in Australia.²

The literature concerning patients' attitudes to GPRs is limited;⁶ however, a single practice survey in the United Kingdom in 1981,⁷ and a study from Ireland in 1995,⁸ indicated that patients were less willing to have GPRs manage longstanding problems, with more negative attitudes noted among patients over 40 years of age.⁸ A previously published, qualitative component of the present study demonstrated ambivalent and nuanced attitudes of older Australians to consulting GPRs, with patients balancing requirements for access and continuity according to their presenting problem.⁹

This study aims to explore and quantify these findings in an Australian context, with the goal of informing patient centred models of interaction to meet the needs of both older patients and GPRs.

Methods

Survey instrument

Development of the survey instrument was informed by the results of a literature review⁶ and a qualitative study.⁹ The instrument consisted of 11 categorical items addressing demographics, health, and general practice service use; four open response items; a self assessed health rating score; 24 individual attitude items; and a six part chronic/complex care attitude item. The attitude items explored patients' responses across the themes of continuity of care, access, trust, openness and communication using five point Likert scales. The qualitative study had identified that patients were unfamiliar with the term 'registrar'. Thus, as successfully employed previously,⁸ the term 'new doctor' was used with an explanatory note for respondents.

Approval from the Human Research Ethics Committee of the University of Wollongong was obtained.

Recruitment and sampling

The public website of a general practice training provider in regional Australia was accessed and the 87 listed training practices were classified as 'rural' (n=41) or 'general' (n=46) training streams. Practices were randomly selected within each stream and invited to participate until five practices from each group consented.

Practice personnel were instructed to offer an information sheet and the questionnaire to 50 sequential patients aged 60 years and over, postconsultation. Distribution was undertaken between December 2008 and February 2009. The respondents returned completed questionnaires by mail directly to the university.

Data analysis

The distribution of the data from the five point Likert scale items were assessed for normality using the Kolmogorov-Smirnov test. As none of these items returned data with a normal distribution, the nonparametric tests, chi-square, Friedman's test, Spearman's rho (two tailed) and backward binary logistic regression, were used for analysis. The sample size, combined with the skewed distribution of responses, resulted in some items displaying very low frequencies (ie. <5) in some categories in the original five category format. These frequencies were below the acceptable threshold for chi-square analysis.¹⁰ Therefore, to achieve adequate frequencies for analysis, responses to the Likert scale items were collapsed into three categories.¹⁰ Scores '1' and '2' were considered as representing a negative attitude, '3' a neutral attitude and '4' and '5' a positive attitude, to the statements provided. Data was tabulated in this format. Likert scale variables were collapsed into two categories to undertake the binary regression, such that a 'neutral' response favoured the null hypothesis. The exception was the 'high satisfaction' variable, where respondents who scored 5 for satisfaction were compared with those who scored 1–4. The initial five category format was retained when assessing correlations. Age/gender groups from this study and the Bettering the Evaluation and Care of Health (BEACH)¹¹ data for 65–74 years and >75 years groups were compared using chi-square analysis to assess how closely the sample resembled the BEACH sample and to inform comment on the generalisability of the results. The internal reliability of the item scales was assessed using Cronbach's alpha. The data was analysed using SPSS Version 15.

Results

Internal reliability of the survey instrument

Internal reliability was shown to be acceptable for the 24 five point Likert scale items 9–32 (alpha=0.72) and the GPR chronic/complex care item 33 (alpha=0.83).¹²

Sample description

Of the 21 practices approached, eight were excluded due to not having had a registrar in the previous 3 months, and three declined to

participate. Surveys were returned from all 10 participating practices with response rates from individual practices ranging from 14% (n=7) to 74% (n=37): 47% overall (n=233). The age range of respondents was 60–92 years. The age/gender distribution of the sample was not significantly different from matched groups from the BEACH¹¹ data (p=0.077). The majority of respondents (n=158, 68.7%) reported having at least one chronic or complex medical problem. Characteristics of the sample are summarised in *Table 1*.

Patient responses

The majority (n=193, 83.9%) of respondents stated they would be happy to see a GPR for a minor problem. However, most felt it required time to develop trust (n=153, 66.8%) and a good relationship (n=184, 80.3%) with a new doctor. Almost all wanted reassurance that ongoing contact with their regular doctor would be maintained if they saw a GPR (n=221, 96.1%). Respondents (n=177, 77.0%) felt more confident in seeing different doctors in the practice, if they knew their medical record was readily available.

Table 1. Sample characteristics

Patient characteristics	Responses
Patients' practice type	
General path	111 (47.6%)
Rural path	122 (52.4%)
Patients' age	
60–74 years	147 (63.6%)
75 years and over	184 (36.4%)
Patients' gender	
Male	89 (38.2%)
Female	144 (61.8%)
Patients' time at practice	
10 years or less	111 (47.8%)
More than 10 years	121 (51.9%)
Patients' time with regular GP	
10 years or less	135 (59.0%)
More than 10 years	94 (41.0%)
Patients' contact with GPRs	
Has not seen (or unsure whether has seen) GPR	96 (41.4%)
Has seen GPR	136 (58.4%)

Note: Percentages expressed are of valid responses for a given item, not for the entire sample

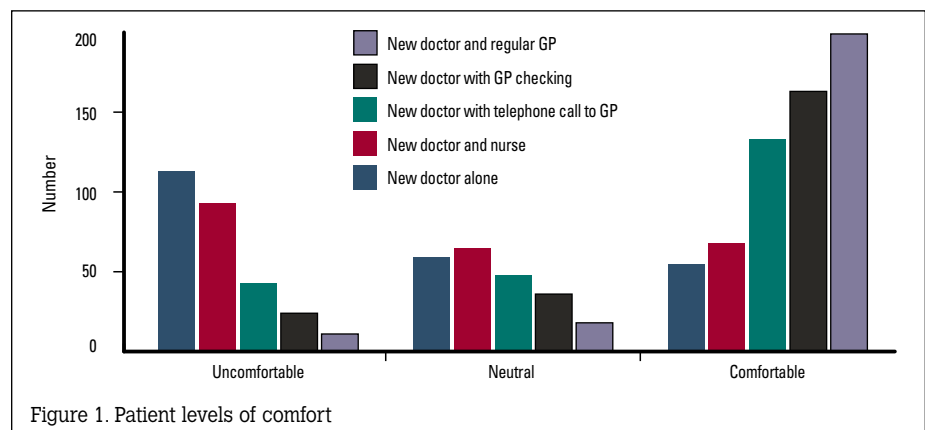


Figure 1. Patient levels of comfort

Table 2. Patient responses

	Unsatisfied	Neutral	Satisfied
9. How satisfied have you generally been with the medical care you have received from the new doctors in your surgery?	5 (3.7%)	30 (22.1%)	101 (74.3%)
	Disagree	Neutral	Agree
10. I am happy to see a new doctor for a minor medical complaint, or simple request like a repeat prescription	12 (5.2%)	25 (10.9%)	193 (83.9%)
11. It is important to me to have a regular doctor who knows me and knows my medical history well	3 (1.3%)	12 (5.2%)	216 (93.5%)
12. Most of the time it is more important for me to see any doctor who is available rather than waiting to see the doctor of my choice	120 (52.9%)	48 (21.1%)	59 (26%)
13. I prefer to see my regular doctor for the management of all my medical conditions	10 (4.3%)	16 (6.9%)	205 (88.7%)
14. In seeing a new doctor, it would take time to build trust	23 (10.0%)	53 (23.1%)	153 (66.8%)
15. I am uncertain how well a new doctor would be able to help me with my problems	45 (19.6%)	80 (34.8%)	105 (45.7%)
16. I would not feel comfortable talking with one of the new doctors about a sensitive problem	86 (37.1%)	46 (19.8%)	100 (43.1%)
17. If I see a new doctor, I worry that they might not take my concerns seriously	110 (47.8%)	48 (20.9%)	72 (31.3%)
18. I would not find seeing a new doctor reassuring	95 (41.5%)	66 (28.8%)	68 (29.7%)
19. If I saw a new doctor for a medical problem, I would like to know that my ongoing contact with my regular doctor was not broken	3 (1.3%)	6 (2.6%)	221 (96.1%)
20. It would be good to have information available regarding the experience and qualifications of the new doctors	25 (10.9%)	60 (26.1%)	145 (63.0%)
21. It would be good to have information regarding what period of time a new doctor will be working at my surgery (eg. 6 months, 12 months, indefinitely)	25 (10.8%)	54 (23.4%)	152 (65.8%)
22. I think my regular doctor is happy for me to see the new doctors for any of my medical problems	38 (17.4%)	73 (33.3%)	108 (49.3%)
23. Supporting the new doctors who come to my medical practice might encourage more doctors to stay in the area	8 (3.4%)	45 (19.4%)	179 (77.2%)
24. I expect that all of the doctors at the surgery I attend have good medical knowledge and skills	3 (1.3%)	11 (4.8%)	215 (93.9%)
25. The relationship I have with my usual doctor is something I would value continuing into the future	0 (0.0%)	5 (2.2%)	227 (97.8%)
26. A new doctor would not have the full picture of my medical history and background	51 (22.3%)	73 (31.9%)	105 (45.9%)
27. I am only willing to see a new doctor if I know the doctor works closely with my regular doctor	36 (15.7%)	42 (18.3%)	152 (66.1%)
28. I don't like having to go through my medical history all over again with a new doctor	53 (23.1%)	60 (26.2%)	116 (50.7%)
29. Knowing that my medical record is readily available helps me feel confident in seeing different doctors in the practice	13 (5.7%)	40 (17.4%)	177 (77.0%)
30. I have found the new doctors easy to communicate with	21 (11.6%)	65 (35.9%)	95 (52.5%)
31. If my usual doctor transferred my care to one of the new doctors, I'd feel a bit abandoned	33 (14.5%)	40 (17.5%)	155 (68.0%)
32. It takes time to develop a good relationship with a new doctor	13 (5.7%)	32 (14.0%)	184 (80.3%)
How comfortable would you feel having a long term or complex medical problem, for example diabetes or a heart problem, managed in the following situations?	Not comfortable	Neutral	Comfortable
33a. A new doctor alone	113 (49.8%)	59 (26.0%)	55 (24.2%)*
33b. A new doctor and the practice nurse	93 (41.2%)	65 (28.8%)	68 (30.1%)*
33c. A new doctor with a phone call to my regular doctor to double check the management	43 (19.2%)	48 (21.4%)	133 (59.4%)*
33d. A new doctor who called in my regular doctor to double check the management	24 (10.8%)	36 (16.1%)	163 (73.1%)*
33e. A new doctor and my regular doctor together	11 (4.8%)	18 (7.9%)	199 (87.3%)*
33f. My regular doctor alone	1 (0.4%)	7 (3.0%)	219 (96.5%)*

Note: Percentages expressed are of valid responses for a given item, not for the entire sample; * $p < 0.001$

Two-thirds would only be willing to see a new doctor if they knew that doctor worked closely with their regular doctor (n=152, 66.1%). A similar proportion wanted to know the qualifications and experience of GPRs (n=145, 63%) and the length of time a GPR would be staying in the practice (n=152, 65.8%); most did not recall

having received information on how early career GPs gain experience or training (n=203; 88.6%). The respondents were asked to rate their levels of comfort in each of a series of scenarios of increasing practice support to the GPR for chronic/complex management. The results (Figure 1) demonstrate a general increase in comfort with

increasing support for the GPRs, with 87.3% (n=199) feeling comfortable if they saw their usual GP and the GPR together for chronic/complex care (Friedman's test $p<0.001$). Patients' responses to all attitude items are presented in Table 2.

Three endpoints were chosen for further investigation: having seen a GPR; satisfaction in seeing a GPR; and comfort in having a chronic/complex problem managed by a GPR alone. Table 3 presents significant results of chi-square analyses and correlations using Spearman's rho (two tailed) with these endpoints and selected variables.

Backward stepwise logistic regression models were then tested for each end point, using the variables listed below each endpoint in Table 3. The variables that were retained after regression are presented in Table 4.

For the first endpoint, patients were more likely to have seen a GPR when they believed their usual GP was happy for them to see a GPR (OR 3.99; 95% CI: 2.17–7.33; $p<0.001$). For the second endpoint, patients were more likely to express high satisfaction in GPR consultations if they felt the GPR was easy to communicate with (OR 3.69; 95% CI: 1.54–8.84; $p=0.003$) or if they felt confident in seeing different doctors, because they knew their medical record was readily available (OR 6.57; 95% CI: 1.41–30.58; $p=0.016$). For the final end point, patients were more likely to feel comfortable with independent GPR chronic/complex management if they would not feel 'abandoned' if their care was transferred to a GPR (OR 3.04; 95% CI: 1.23–7.52; $p=0.016$).

Discussion

This is the first study that the authors are aware of that quantifies Australian patient responses to GPRs. The results are consistent with previous Australian qualitative work,⁹ overseas studies on responses to GPRs,⁶ and research concerning continuity of care.^{4,5,13–17} This study adds to the literature by identifying factors that may improve older patients' acceptance of GPRs. Of particular interest is that this study quantifies a widespread reluctance among older patients to having registrars manage chronic/complex conditions, which could be significantly improved by maintaining a relational link with their regular GP.

This study has limitations; the modest sample size, variable response rates

Table 3. Associations and correlations

Endpoint for investigation	Association (chi-square analysis)	Correlation (Spearman's rho)
Having seen a GPR		
Attending a rural practice	$p=0.024$	–
Attending the same practice for more than 10 years	$p=0.001$	–
Attending the same GP for more than 10 years	$p=0.009$	–
Agreeing with: 'I think my regular doctor is happy for me to see the new doctors for any of my medical problems'	$p<0.001$	–
High satisfaction in seeing a GPR		
Agreeing with: 'I think my regular doctor is happy for me to see the new doctors for any of my medical problems'	–	0.344 ($p<0.001$)
Agreeing with: 'I expect that all of the doctors at the surgery I attend have good medical knowledge and skills'	–	0.411 ($p<0.001$)
Agreeing with: 'Knowing that my medical record is readily available helps me feel confident in seeing different doctors in the practice'	–	0.416 ($p<0.001$)
Agreeing with: 'I have found the new doctors easy to communicate with'	–	0.527 ($p<0.001$)
Comfort in having a chronic/complex medical problem managed by a GPR alone		
Having seen a GPR	$p<0.001$	
Agreeing with: 'I think my regular doctor is happy for me to see the new doctors for any of my medical problems'	$p<0.001$	0.303 ($p<0.001$)
Agreeing with: 'I don't like having to go through my medical history all over again with a new doctor'	–	–0.338 ($p<0.001$)
Agreeing with: 'Most of the time it is more important for me to see any doctor who is available rather than waiting to see the doctor of my choice'	–	0.338 ($p<0.001$)
Agreeing with: 'I would not find seeing a new doctor reassuring'	–	–0.332 ($p<0.001$)
Agreeing with: 'If my usual doctor transferred my care to one of the new doctors, I'd feel a bit abandoned'	–	–0.388 ($p<0.001$)
Agreeing with: 'It takes time to develop a good relationship with a new doctor'	–	–0.411 ($p<0.001$)

Table 4. Variables retained after logistic regression

	Odds ratio	Lower 95% CI	Upper 95% CI	Significance
Variables predicting a patient having seen a GPR				
Attending a rural practice	1.88	1.03	3.45	$p=0.04$
Attending the same practice for more than 10 years	2.70	1.48	4.96	$p=0.001$
Agreeing with: 'I think my regular doctor is happy for me to see the new doctors for any of my medical problems'	3.99	2.17	7.33	$p<0.001$
Variables predicting a patient reporting high satisfaction in seeing a GPR				
Agreeing with: 'I have found the new doctors easy to communicate with'	3.69	1.54	8.84	$p=0.003$
Agreeing with: 'knowing that my medical record is readily available helps me feel confident in seeing different doctors in the practice'	6.57	1.41	30.58	$p=0.016$
Variables predicting patients feeling comfortable in having a chronic/complex medical problem managed by a GPR alone				
Disagreeing with: 'I would not find seeing a new doctor reassuring'	2.20	1.05	4.58	$p=0.036$
Agreeing with: 'most of the time it is more important for me to see any doctor who is available rather than waiting to see the doctor of my choice'	2.42	1.14	5.15	$p=0.022$
Disagreeing with: 'if my usual doctor transferred my care to one of the new doctors, I'd feel a bit abandoned'	3.04	1.23	7.52	$p=0.016$
Disagreeing with: 'it takes time to develop a good relationship with a new doctor'	13.04	2.57	66.28	$p=0.002$

between practices and the inability to track nonresponders potentially detract from the generalisability of the results. However, strengthening the findings, the sample did not significantly differ from the patient population demonstrated in the BEACH study,¹¹ and logistic regression has been shown to be robust in complex sampling techniques, such as the cluster sampling used in this study.¹⁸

Implications for training practices and future research

Adult learning theory indicates that learners are motivated by the need to solve real life, practical problems.¹⁹ Older patients are likely to present their straightforward complaints to registrars, keeping their complex or chronic problems for their usual doctor. This has obvious implications for registrar learning. Addressing the key findings of this study (summarised below) could positively influence older patients' interactions with registrars. Developing models of 'shared continuity' for chronic/complex care between older patients, GPRs, and GPs has the potential to ensure patient satisfaction, high quality care and

valuable learning opportunities for GPRs.

These results warrant further investigation. The study requires confirmation with a larger sample from a more diverse geographic distribution. As a cross sectional study, it is unable to demonstrate causative relationships. Therefore further research is indicated to trial the recommendations to determine whether patient acceptance results improve. Evaluation would also be required to assess the outcomes clinically for patients and educationally for GPRs.⁹ The acceptability to training practices of proposed strategies, including cost implications, also needs evaluating.

Key findings

The older patients in this sample wanted:

- information regarding the length of stay, experience and qualifications of GPRs
- to know GPRs worked closely with their regular doctors
- continuity of care preserved with their usual doctor if they consulted a GPR.

They were more likely to see a GPR:

- if they thought their regular GP was happy for them to do so.

They were more likely to be highly satisfied:

- if they felt confident, knowing that their record was readily available
- if the GPR communicated well.

They were more comfortable with GPR chronic/complex management:

- if there was simple contact with their usual GP at the time of the consultation.

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Conflict of interest: none declared.

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