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Patient attitudes

Training students in general practice

Background

While evidence from Australian studies is lacking, evidence from overseas suggests that patients are generally willing to have a medical student present during general practitioner consultations. This willingness, however, may be contingent upon factors related to the patient, student or consultation.

Method

Focus groups and two cross sectional surveys of 296 patients attending 16 general practices in New South Wales.

Results

Patients are willing to have students present, but not for all consultations. Patients find it problematic to have students present during consultations that involve worrying test results, emotional upset, internal examinations, and sexual problems. Younger patients are less willing to have a student present. For all patients the presence of a student may alter the dynamics and content of the consultation; patients are less willing to see a student without the GP also being present.

Discussion

Supervising GPs should be aware of circumstances where patients are less likely to want a student present and of ways in which the presence of a student may alter the consultation.

Keywords: general practice; education, medical, undergraduate; doctor-patient relations



The number of medical student placements in Australian general practice is likely to increase given the rapid expansion of medical student numbers¹ and limitations on educational opportunities in hospital settings.² For this increase to be sustainable, patient attitudes and expectations must inform the design and conduct of general practice student attachments.

In Australia and New Zealand there has been limited research, but in the United Kingdom (UK) research has shown a high proportion of patients are willing to have a medical student present during general practitioner consultations.^{3,4} Factors influencing patient willingness are:

- the reason for the consultation
- the nature of any physical examination required
- the gender of the student.³⁻⁷

Patients are much less willing to see a medical student without GP supervision.³

Patient experiences of consultations with a student present are generally reported as positive, with no decreased sense of patient enablement or satisfaction,^{8,9} and with some patients reporting a positive effect on the consultation.^{6,9,10} Patients are also more willing to have a student present in subsequent consultations.⁶ Nonetheless, the presence of a student may impede discussion of personal problems.^{9,11}

This study examines the willingness of patients in Australian general practice to have a student present, the reasons for this willingness, the factors impacting upon willingness, the degree of student involvement that is acceptable to patients, and patients' experience of a consultation with a student present.

Method

Setting

This mixed methods study was undertaken in the Hunter region of New South Wales, Australia. Medical practices involved in the study were private general practices hosting fourth and fifth year medical student attachments from the University of Newcastle. Study participants were patients attending these practices.

Ethics approval was obtained from the University of Newcastle Human Research Ethics Committee.

Focus groups

Focus group participants were recruited through general practices involved in supervising medical students. Five practices were contacted to see if they would assist in the recruitment of patients for focus groups. Three practices (two urban and one rural) agreed to participate. Practice reception staff handed out information sheets and consent forms to patients over 18 years of age who attended the practice. Those interested in participating in a focus group completed a consent form and provided a contact telephone number. Focus groups were conducted using an interview guide that comprised open ended questions and prompts developed to explore the research questions and informed by a review of the literature. Two focus groups and a semistructured interview (in order to include one participant who was unable to attend a scheduled focus group) were conducted. These were audiotaped and transcribed. A preliminary thematic analysis was performed to inform the development of two questionnaires to be used in cross sectional surveys.

Cross sectional surveys

Two questionnaires were developed. Questionnaire A explored patient attitudes and

expectations of medical student presence during a GP consultation. Questionnaire B explored patient experiences of consultations in the presence of a medical student. Categorical response questionnaire items were supplemented by free text response questions to allow additional responses and further explanation of responses.

All practices hosting University of Newcastle fourth and fifth year general practice clinical attachments were invited to participate in the study. These included urban and rural practices. Twenty-six practices were approached and 16 (62%) participated. Participating practices were provided with 12 copies of both questionnaires. Reception staff distributed Questionnaire A to consecutive patients (if under 18 years of age, to the parent/guardian) on a day when no medical students were present. Questionnaire B was distributed on a day when a medical student was present to consecutive patients following consultations in which a medical student was present.

Qualitative data analysis

After completion of the questionnaire phase of the study, the transcripts and free text answers from the questionnaires were incorporated in a single thematic analysis. Consensus coding was conducted by two members of the research team. This resulted in the generation of a set of agreed first order codes that were then applied to the transcript and questionnaire free text data. Subsequent thematic analysis grouped these first order codes into second order codes and the interrelationships of these codes were mapped.

Quantitative data analysis

Differences in attitudes and expectations of respondents on the bases of age and gender were analysed by Fisher's exact test. A *p* value of <0.05 was considered significant.

Results

Quantitative analysis

There were 192 copies of each questionnaire distributed, with 166 respondents to Questionnaire A (response rate 86%) and 130 respondents to Questionnaire B (response rate 68%). The difference in response rates was expected as patients were requested to complete Questionnaire A while waiting for

their consultation, whereas for Questionnaire B patients were requested to complete it after they had ended their consultation. Subject demographics are presented in *Table 1*.

Patient attitudes and expectations

There was a high level of willingness for a student to be present and to have a high level of involvement during consultations. However, patients were less willing to have a student present under the following circumstances:

- if coming back for test results they were worried about
- if feeling upset or depressed
- if requiring an internal examination
- if they had a sexual problem.

The gender of the student was an important factor if the patient needed an internal examination or had a sexual problem. Patients were much less willing to see the medical student without a GP present and many had concerns about this (*Table 2*). Patients younger than 40 years of age were less willing to have a student present. Female patients were less willing to have a student present if they needed an internal examination or had a sexual problem (*Table 3*).

Patient experiences

Respondents reported different levels of student involvement during the consultation. Generally participants reported positive outcomes from student involvement in the consultation (*Table 4*).

Qualitative analysis

Free text responses were provided by 132 respondents across Questionnaire A and B. These were incorporated in the final thematic analysis of the qualitative data along with the focus groups' data.

Why do patients say yes?

The dominant theme was that participants believed medical student participation in GP consultations to be essential for the optimal education of medical students and were therefore willing to contribute.

'If we don't give our students support, then the GP has to practise when he becomes a GP.' (Focus Group 1, female #5)

'I believe this is very necessary on-the-job training.' (Focus Group 1, male #2)

Some were motivated by a sense of altruism or by a sense of mutual obligation and giving something back.

'I was very pleased actually. Perhaps I'm doing something, helping someone; so I appreciated the opportunity.' (Focus Group 1, female #6)

Many participants demonstrated a relatively sophisticated understanding of the potential value and limitations of the experience from an educational point of view. They identified the importance of hands on experience and of learning from interaction with patients. They recognised the need for students to be exposed to a broad range of clinical presentations

Table 1. Characteristics of patients responding to Questionnaires A and B

	Questionnaire A*	Questionnaire B**
Number of respondents	166	130
Age range (years)	18–85	18–82
Female % (n)	65% (106)	62% (78)
Born in Australia % (n)	91% (151)	84% (112)
Main language spoken at home was English % (n)	100% (163)	99% (128)
Attended a rural practice % (n)	69% (115)	60% (78)
Previous experience with a medical student present during a GP consultation % (n)	71% (116)	n/a
Aware that the practice hosted medical students % (n)	65% (106)	n/a

Note: Different samples of patients completed Questionnaire A and B

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

* Questionnaire A: attitudes and expectations (administered before consultation with GP)

** Questionnaire B: experiences (administered after consultation with medical student present)

including nonclassic presentations, complex problems and chronic conditions. They identified the need for students to learn communication and interpersonal skills and felt that general practice is preferable to hospitals for this. They articulated the importance of students learning a patient centred, holistic approach.

'To realise that people are complex and that people do have chronic conditions and that they are each individuals.' (Focus Group 1, female #4)

Participants also recognised some clear personal benefits, including the communication of more information during the consultation.

'Because the doctor explained things to the student it helped me to understand better what the doctor was saying about my condition. (Questionnaire B, female, 28 years of age)

Most found the interaction with the student a positive, enjoyable experience. Participants also saw the student as bringing up-to-

date information and a second perspective, encouraging the GP to reflect on diagnosis and management. It was also seen as an indicator of quality, commitment, professionalism and accountability of the GP.

'If I'm in a practice where every GP has students, that actually gives me a bit more confidence because I know that their judgement's on the line as well, not only with me. And it's a huge task: it's not just time, it's the

Table 2. Patients' attitudes and expectations (Questionnaire A)

Question	Percentage (number*)		
	Yes	No	
If there was a medical student in the practice today, would you be willing to have him or her present during your consultation?	97.5% (159)	2.5% (4)	
In general, are you willing to have a medical student present during your consultation with your GP?	Any consultation	Not every consultation	Not any consultation
	54.0% (87)	44.1% (71)	1.9% (3)
Would you agree to a student being present during the consultation if you:	Yes	No	Depends on student gender
• Had a sore throat?	98.2% (161)	0.6% (1)	1.2% (2)
• Had a chest infection?	97.5% (159)	0% (0)	2.5% (4)
• Were bringing your child to see the doctor?	92.6% (138)	6.0% (9)	1.3% (2)
• Were coming back for test results that you were worried about?	78.5% (128)	19.0% (31)	2.5% (4)
• Were feeling upset?	74.1% (120)	21.0% (34)	4.9% (8)
• Were feeling depressed?	70.0% (112)	26.9% (43)	3.1% (5)
• Needed an internal examination?	45.3% (73)	41.0% (66)	13.7% (22)
• Had a sexual problem?	41.4% (67)	42.0% (68)	16.7% (27)
In general, would you be happy for the medical student to:	Yes	No	
• Participate in the history taking?	94.4% (152)	5.6% (9)	
• Discuss issues with the doctor during your consultation?	90.7% (147)	9.3% (15)	
• Perform some of the examination (under supervision)?	83.0% (132)	17.0% (27)	
• Perform some procedure (under supervision)?	79.5% (128)	20.5% (33)	
How do you think the presence of a medical student might affect your consultation?			
It would make the consultation...	Better 13.7% (21)	The same 85.0% (130)	Worse 1.3% (2)
The amount of time that my doctor spends with me would be...	Greater 32.3% (50)	The same 66.5% (103)	Less 1.3% (2)
In general, would you be willing to see the medical student on their own:	Yes	No	
• Before you see your doctor?	36.6% (59)	63.4% (102)	
• After you see your doctor?	54.3% (88)	45.7% (74)	
(Calculated result: before or after)	61.1% (99)	38.9% (63)	
Would you have any concerns about seeing a student on their own?	42.4% (64)	57.6% (87)	

* n=166

professionalism, the professional judgement; it's for being able to explain and it's being able to do it all at the same time as seeing to the needs of the patient.' (Focus Group 1, male #3)

Why do patients say no?

Participants expressed hesitancy to have students present for very sensitive problems including undressing for examinations, internal examinations, sexual problems, interpersonal issues, and returning for results with potentially bad news. This also applied for psychological problems such as depression, depending on its degree.

'Not if it goes too close to the bone.' (Focus Group 1, male #1)

Other concerns and potential negative effects influencing participants to 'say no' were identified. The presence of a student may alter the consultation's content and therefore patients may not raise issues or provide information, or they

may postpone a sensitive examination.

'I felt a little inhibited to discuss personal problems.' (Questionnaire B, female, 27 years of age)

One participant described a negative experience where he felt excluded while the doctor and four students discussed his X-rays. Other concerns expressed related to student attitude and behaviour, confidentiality, lack of anonymity if the student is known to the patient (eg. in a small community), the increased time demands on the patient, being charged for a longer consultation, and the impact on the GP's time and workload.

Degree of student involvement

Participants generally welcomed active involvement from the medical students in the consultation, including history taking, physical examination and procedures. They saw this as educationally valuable. Participants felt

comfortable with the student performing the examination as long as the GP then checked it.

'The student can participate... [but] if it's anything of consequence... then I would like to think that the GP checked it out.' (Focus Group 1, male #2)

As the degree of student involvement increased (ie. from observation to history to examination to procedures) the physical presence of the GP became more essential for the patient to feel comfortable.

Patient seeing student alone

Focus group participants were acutely aware of the time demands and logistical problems in organising and synchronising appointments for separate student consultations. They suggested separate training days with patients attending to see a student separately.

In contrast, questionnaire respondents expressed concern about seeing students

Table 3. The significant impacts of age and gender on patients' attitudes and expectations

Item	Percentage (number*)			Significance level
	Yes	No		
If there was a medical student in the practice today, would you be willing to have him or her present during your consultation?				
Age 18–39 years	94% (46)	6% (3)		p=0.028
Age 40–89 years	100% (110)	0% (0)		
In general, are you willing to have a medical student present during your consultation with your GP?	Any consultation	Not every consultation	Not any consultation	
Age 18–39 years	38% (19)	58% (29)	4% (2)	p=0.003
Age 40–89 years	61% (66)	39% (42)	0% (0)	
Would you agree to a student being present during the consultation if you:	Yes	No	Depends on student gender	
• Were coming back for test results that you were worried about				
Age 18–39 years	66% (33)	28% (14)	6% (3)	p=0.003
Age 40–89 years	85% (93)	15% (16)	0% (0)	
• Were depressed				
Age 18–39 years	50% (25)	40% (20)	10% (5)	p<0.001
Age 40–89	79% (84)	21% (23)	0% (0)	
• Needed an internal examination				
Male	60% (32)	30% (16)	9% (5)	p=0.033
Female	38% (40)	47% (49)	15% (16)	
• Had a sexual problem?				
Male	55% (30)	38% (21)	7% (4)	p=0.022
Female	35% (36)	45% (47)	20% (21)	

* n=166. Note: Percentages expressed are of valid responses for a given item, not for the entire sample

Table 4. Patients' experiences of having a student present in their GP consultation (Questionnaire B)

Item	Percentage (number*)		
	Yes	No	
To what extent was the medical student involved in the consultation?			
The doctor explained things to the student	71.1% (86)	28.9% (35)	
The student discussed things with my doctor	36.4% (44)	63.6% (77)	
The student participated in the history taking	19.0% (23)	81.0% (98)	
The student performed some of the examination	32.2% (39)	67.8% (82)	
The student performed some procedure	14.9% (18)	85.1% (103)	
How do you think the presence of the medical student affected your consultation?			
The amount of time my doctor spent with me was...	Greater 20.3% (24)	The same 79.7% (94)	Less 0% (0)
It made the consultation...	Better 14.2% (17)	The same 85.8% (103)	Worse 0% (0)
Did you see the medical student on their own?	Yes	No	
Before the consultation with your doctor	5.0% (6)	95.0% (115)	
After the consultation with your doctor	0% (0)	100% (121)	
Has your willingness to have a medical student changed as a result of your consultation today?	More willing 22.6% (28)	No change 76.6% (95)	Less willing 0.8% (1)

* n=130. Note: Percentages expressed are of valid responses for a given item, not for the entire sample

separately. It was apparent that the educational rationale for students seeing patients independently wasn't understood by many respondents. They expressed a strong wish to see their own GP. They were concerned about the student's lack of experience, training and qualifications; lack of knowledge of the patient's past history; inexperience with children; the possibility of inappropriate comments or diagnosis; lack of supervision and guidance; time inefficiency; privacy and confidentiality. They were concerned that their consultation with their usual doctor was being replaced, with comments such as:

'I come to see my doctor.' (Questionnaire A, male 67 years of age)

'I would want a doctor present.' (Questionnaire A, female, 18 years of age)

'The level of education and someone you're not familiar with.' (Questionnaire A, female, 23 years of age)

'Not yet qualified.' (Questionnaire A, male, 49 years of age)

Discussion

Our results show that there is a high level of patient willingness to have a student present during consultations. This is however, often

contingent upon the content of the consultation and the gender of the student. It also depends on the nature of the student's involvement, whether the patient is seeing the student on their own or with the GP, and the age and gender of the patient. Generally patients report positive outcomes from student involvement in the consultation but the presence of a medical student can alter the dynamics and content of a consultation.

The results of this Australian study are consistent with previous UK studies regarding the proportion of patients who are willing to have a medical student present during the consultation with their GP and the influence of the reason for the consultation and the type of physical examination required.³⁻⁶ It provides new data on the relationship between patient age and gender and willingness to have a student present; the level of student involvement that is acceptable to patients and highlights patients' relative reluctance to see students independently.

Implications for general practice

Patient consent

Most patients were willing to have students present in consultations, but selectively. General

practitioner supervisors need to be aware of the circumstances in which patients may not want a student present. These include psychological, social and sexual issues; internal examinations; when receiving potentially bad news, and if the patient is younger than 40 years of age. The gender of the student may be important and that information needs to be made available to the patient.

Conduct of consultations

General practitioners must be aware that student presence affects the dynamics and content of consultations. A patient may not divulge personal information, may put off a sensitive examination, and may choose not to raise issues or ask questions. Hence, the GP may need to conduct part of the consultation without the student or arrange a follow up consultation.

Overall, patients have a positive or neutral experience with students in general practice. They enjoy the interaction with the student and often value the vicarious information they glean when GPs provide explanations to students. But it is important that the patient is included, not sidelined, in these discussions. A sense of inclusion and participation is essential for patient satisfaction with the experience.

Educational opportunities and challenges

Patients were willing for students to have a high level of participation in the consultation in terms of history taking, examination and procedures. However, the reported level of student participation was less. This represents a lost educational opportunity. Furthermore, there is a marked decrease in the willingness of patients to have a student present if the patient is to see them without their GP. There are strong educational reasons for students seeing patients independently and likely logistical reasons if the number of student attachments increases markedly. However, if medical schools and practices wish to utilise this model, they will need to educate patients about the importance of this approach for effective student learning and will need to address the patient concerns identified in this study.

Study strengths and limitations

The mixed methodology strengthens the study as it informs the interpretation of the quantitative findings with qualitative data. The high response rate to the questionnaires is also a strength. The setting of the study is both a strength, in that the regional setting encompasses both urban and rural practices, and a limitation in that the region has a lower proportion of overseas born and non-English speaking patients than the rest of New South Wales and as such, the results may not be representative of that patient subgroup.¹²

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References

- Joyce C, Stoelwinder J, McNeil J, et al. Riding the wave: current and emerging trends in graduates from Australian university medical schools. *Med J Aust* 2007;186:309–12.
- Thistlewaite J, Jacobs H, Rudolph S. Undergraduate general practice attachments: implications and challenges. *Aust Fam Physician* 2005;34:181–2.
- Morrison J, Murray T. Preliminary study into the opinions of patients about the presence of medical students in the general practice consultation. *Health Bull* 1995;53:343–4.
- O'Flynn N, Spencer J, Jones R. Consent and confidentiality in teaching in general practice: survey of patients' views on presence of students. *BMJ* 1997;315:1142.
- Jones S, Oswald N, Date J, et al. Attitudes of patients to medical student participation: general practice consultations on the Cambridge Community-Based Clinical Course. *Med Educ* 1996;30:14–7.
- Cooke F, Galasko G, Ramrakha V, et al. Medical students in general practice: how do patients feel? *BMJ* 1996;46:361–2.
- Chipp E, Stoneley S, Cooper K. Clinical placements for medical students: factors affecting patients' involvement in medical education. *Med Teach* 2004;26:114–9.
- Benson J, Quince T, Hibble A, et al. Impact on patients of expanded, general practice based, student teaching: observational and qualitative study. *BMJ* 2005;331:89.
- Price R, Spencer J, Walker J. Does the presence of medical students affect quality in general practice consultations? *Med Educ* 2008;42:374–81.
- Holden J, Pullon S. Trainee interns in general practices N Z *Med J* 1997;110:377–9.
- O'Flynn N, Spencer J, Jones R. Does teaching during a general practice consultation affect patient care? *BMJ* 1999;49:7–9.
- Choudry T, Moosa A, Cushing A, et al. Patients' attitudes towards the presence of medical students during consultations. *Med Teach* 2006;28:e198–203.

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