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## WEB PAPER

# Patients' views on student participation in general practice consultations: A comprehensive review

S.S.L. MOL, J.H. PEELEN &amp; M.M. KUYVENHOVEN

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## Abstract

**Background:** Recruiting general practitioners (GPs) to host students for their clerkship is difficult. GPs often assume patients dislike consulting a student-doctor.

**Aim:** To systematically review the evidence on patient satisfaction regarding the presence/participation of a student during a consultation in general practice.

**Method:** Medline search (January 1990 to July 2010). One reviewer extracted data from the articles fulfilling the criteria which were set, and a second reviewer checked these for accuracy. Due to heterogeneity a quantitative synthesis could not be performed.

**Results:** Sixteen studies fulfilled the criteria. The majority of patients gave permission for the presence or participation of a student-doctor. Emotional problems and the need for an intimate examination were the main reasons for refusal. Satisfaction was high. Benefits the patients mentioned were: more time, a more thorough physical examination, better patient education and getting a second opinion. Altruism also played a role.

**Conclusion:** In general, the attitude of patients towards student-doctors is positive. There is a general reluctance to see a student-doctor for emotional or intimate problems. Future research should focus on the effect of the preceptor's presence in the latter case. Another interesting topic would be the effect on consent and appreciation of the student-doctor when there are differences in cultural background between patient and student.

## Introduction

Participating in a general practice clerkship is important for several reasons. It has been shown to stimulate students to choose general practice for their career (Senf et al. 2003). Furthermore, students who will take on another specialty will have gained an understanding of primary care. However, recruiting general practitioners (GPs) prepared to host students is increasingly difficult – certainly in the Netherlands. One of the reasons mentioned by GPs for not wishing to participate in teaching is their assumption that patients prefer not to be seen by a student. In order to explore this assumption we reviewed the available literature. Our research questions were:

- (1) Which percentage of patients gives consent to student participation?
- (2) How high is patient satisfaction?
- (3) Which factors are related to consent and satisfaction?

## Method

We performed a search in the literature, using Medline (January 1990 to July 2010), using the following search

### Practice points

- The presence or participation of a student-doctor during a general practice consultation is acceptable for most patients.
- Patients, on the whole, do not feel less satisfied when a student participates in a consultation.
- Active participation by a student-doctor is best received in the opening phase (taking history).
- As on the one hand, quite a few patients feel uncomfortable when consulting a student-doctor about personal or intimate problems, and on the other hand, student-doctors should be taught to deal with these problems, preceptors should look for ways to manage this type of consultation.

terms: (student OR medical student OR senior student OR clerkship) AND patient AND (satisfaction OR perception\* OR consultation OR interview) AND (general practice OR family practice OR family medicine OR ambulatory OR family

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**Table 1.** Main characteristics of the studies included.

Author (year of publication)	Country	Degree of student participation <sup>a</sup>	Number of respondents	Number of controls <sup>b</sup>
Benson et al. (2005)	UK	Active	196	294
Bentham et al. (1999)	UK	Active	130	
Braend et al. (2010)	Norway	Active	2643	
Chipp et al. (2004) <sup>c</sup>	UK	Not specified	281	
Cooke et al. (1996)	UK	Not specified	190	88
Choudhury et al. (2006) <sup>c</sup>	UK	Not specified	422	
Devera-Sales et al. (1999)	USA	Not specified	499	126
Frank et al. (1997)	USA	Passive	83	369
Haffling & Hakansson (2008)	Sweden	Active	495	
Hudson et al. (2010) <sup>d</sup>	Australia	Passive	117	
O'Flynn et al. (1997)	UK	Passive	335	
O'Flynn et al. (1999) <sup>e</sup>	UK	Passive	335	
Passaperuma et al. (2008) <sup>c</sup>	Canada	Active + passive	625	
Price et al. (2008)	UK	Passive	1351	1199
Prislin et al. (2001) <sup>c</sup>	USA	Active	121	
Salisbury et al. (2004) <sup>d</sup>	Australia	Passive	88	

Notes: <sup>a</sup>Active: student sees patient under supervision; passive: student observes the doctor.

<sup>b</sup>Controls: patients who saw doctor without a student.

<sup>c</sup>Comparison with other specialty(ies).

<sup>d</sup>Before and after study.

<sup>e</sup>Same study population as O'Flynn et al. (1997).

physician OR primary care) NOT hospital. Abstracts were screened along the following inclusion criteria:

- structured patient questionnaire on patient's opinion on presence/participation of medical student;
- in general practice;
- student in the last 3 years of medical school.

We searched for further references in the selected papers.

## Results

The search yielded 798 abstracts, of which 12 fulfilled the inclusion criteria. By checking the references we found another four articles. The resulting 16 articles were from Anglo-Saxon and Scandinavian countries (Table 1). Numbers of respondents ranged from 83 to 2643 patients. Response percentages were given in six studies only and lay between 70% and 96% (O'Flynn et al. 1997; Bentham et al. 1999; Chipp et al. 2004; Salisbury et al. 2004; Benson et al. 2005; Hudson et al. 2010). As both the content of the questionnaires and the procedures followed differed considerably between studies, a quantitative synthesis was not possible.

### Consent to student participation

Consent to student presence or participation was generally high, with percentages lying between 83% and 98%. (Cooke et al. 1996; O'Flynn et al. 1997; Bentham et al. 1999; Devera-Sales et al. 1999; Chipp et al. 2004; Salisbury et al. 2004; Choudhury et al. 2006; Haffling & Hakansson 2008; Hudson et al. 2010). Closer questioning revealed that for between a quarter to half of the patients giving permission depended on the complaint type (O'Flynn et al. 1997; Salisbury et al. 2004; Haffling & Hakansson 2008). Previous experience with a student-doctor was a positive predictor for giving permission and allowing more active student

involvement (Cooke et al. 1996; Devera-Sales et al. 1999; Choudhury et al. 2006).

### Degree of patient satisfaction

Patients generally felt neutral or positive about students: 85–97% did so (Cooke et al. 1996; Prislin et al. 2001; Choudhury et al. 2006; Haffling & Hakansson 2008); expressed on a five-point scale, satisfaction lay between 3.6 and 4.8 (Frank et al. 1997; Passaperuma et al. 2008; Braend et al. 2010). However, O'Flynn et al. (1999) and Price et al. (2008) found that, when specifically asked, 34% and 21%, respectively, would rather see the doctor alone.

In three studies a comparison was made: both patients who had been seen by a student and patients who had not – in the same practice – scored satisfaction. Patients equally appreciated both types of consultation (Frank et al. 1997; Benson et al. 2005; Price et al. 2008).

### Benefits for the patient

Patients mentioned the following benefits: longer consultation time, a more thorough physical examination, better patient education and a second opinion (Cooke et al. 1996; Bentham et al. 1999; O'Flynn et al. 1999; Prislin et al. 2001; Chipp et al. 2004; Haffling & Hakansson 2008; Price et al. 2008). Another frequently mentioned motive was altruism: patients felt good about contributing to the student's education (Bentham et al. 1999; Chipp et al. 2004; Salisbury et al. 2004; Choudhury et al. 2006; Haffling & Hakansson 2008).

### Predictors of satisfaction: Consultation phase

There is a gradient in the acceptability of the various phases of the consultation: taking a history is most frequently accepted, followed by the physical exam; doing procedures – such as venipuncture – is the least accepted (Devera-Sales et al. 1999; Prislin et al. 2001; Chipp et al. 2004; Salisbury et al. 2004;

Choudhury et al. 2006; Passaperuma et al. 2008). Talking about emotional or sexual matters is often considered problematic, as is performing an intimate examination (O'Flynn et al. 1997; O'Flynn et al. 1999; Chipp et al. 2004; Salisbury et al. 2004; Choudhury et al. 2006; Haffling & Hakansson 2008; Passaperuma et al. 2008; Braend et al. 2010). In Braend et al.'s (2010) study, patients gave students a higher score on their consultation skills in the opening phase (history taking) than in the closing phase (such as explaining the purpose of tests and helping to understand advice).

#### Predictors of satisfaction: Student characteristics

Passaperuma et al. (2008) found that patient satisfaction was higher with female than with male students (4.0 versus 3.5 on a five-point scale); Chipp et al. (2004) and Bentham et al. (1999) found women preferred a student of their own sex, more often than men. In all the three studies, a relation was found between the patient's preference for a student of a certain sex and the type of complaint; this relation however was not statistically significant (Bentham et al. 1999; Chipp et al. 2004; Passaperuma et al. 2008). More experienced students were preferred over younger students (Frank et al. 1997; Chipp et al. 2004). In an American study, older patients more often expressed concern about the student's race than younger patients (Devera-Sales et al. 1999). Chipp et al. (2004) (UK) found that 4% would not see a student from a different cultural background and 11% were unsure.

#### Predictors of satisfaction: Patient ethnicity

The only article on patient ethnicity shows that White-British patients in London are far more positive about the presence and participation of medical students, than are non-White-British patients (Choudhury et al. 2006).

## Discussion

#### Limitations

The large variation in the topics patients were questioned about and in the manner in which the questions were formulated impeded quantifying results across studies. This review can therefore only show trends through the various studies. Patient's response rates were low in some studies and unclear in others. This possibly introduces selection bias, and together with the fact that it is not always clear whether anonymity in returning the questionnaires was ensured, the results may be too positive.

#### Future research

The positive attitude of patients towards student participation raises the question whether the GPs' reluctance to hosting students is based on other grounds; for example, the need to be flexible in combining the task of supervisor and doctor. Exploring reasons for GPs' reluctance is a topic for further study. The effect of ethnic and cultural differences between student and patient on the patient's satisfaction needs to be

looked into more closely. Also, as it is important that students learn as much about consultations regarding personal and intimate problems as they do on other topics, it would be interesting to study whether the reluctance to see the student-doctor for personal or intimate problems would decrease if the preceptor would be present during the consultation.

## Conclusions

The attitude of patients towards student-doctors in the family practice consultation is generally positive. They appreciate helping to teach students, and feel it does not decrease the quality of the consultation. They do, however, feel less comfortable with a student-doctor when consulting for personal or intimate problems or when the student-doctor is to perform a procedure.

**Declaration of interest:** None.

## Notes on contributors

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## References

- Benson J, Quince T, Hibble A, Fanshaw T, Emory J. 2005. Impact on patients of expanded, general practice based, student teaching: An observational and qualitative study. *BMJ* 331:89.
- Bentham J, Burke J, Clark J, Svoboda C, Vallance G, Yeow M. 1999. Students conducting consultations in general practice and the acceptability to patients. *Med Educ* 33:686–687.
- Braend AM, Gran SF, Frich JC, Lindbaek M. 2010. Medical students' clinical performance in general practice – Triangulating assessments from patients, teachers and students. *Med Teach* 32(4):333–339.
- Chipp E, Stoneley S, Cooper K. 2004. Clinical placements for medical students: Factors affecting patients' involvement in medical education. *Med Teach* 26:114–119.
- Choudhury TR, Moosa A, Cushing A, Bestwick J. 2006. Patients' attitudes towards the presence of medical students during consultations. *Med Teach* 28:198–203.
- Cooke F, Galasko G, Ramrakha V, Richards D, Rose A, Watkins J. 1996. Medical students in general practice: How do patients feel? *Br J Gen Pract* 46:361–362.
- Devera-Sales A, Paden C, Vinson DC. 1999. What do family medicine patients think about medical students' participation in their health care? *Acad Med* 74(5):550–552.
- Frank SH, Stange KC, Langa D, Workings M. 1997. Direct observation of community-based ambulatory encounters involving medical students. *JAMA* 278(9):712–716.

- Haffling AC, Hakansson A. 2008. Patients consulting with students in general practice: Survey of patients' satisfaction and their role in teaching. *Med Teach* 30: 622–629.
- Hudson JN, Weston KM, Farmer EE, Ivers RG, Pearson RW. 2010. Are patients willing participants in the new wave of community-based medical education in regional and rural Australia? *Med J Aust* 192(3):150–153.
- O'Flynn N, Spencer J, Jones R. 1997. Consent and confidentiality in teaching in general practice: Survey of patients' views on presence of students. *BMJ* 315:1142.
- O'Flynn N, Spencer J, Jones R. 1999. Does teaching during a general practice consultation affect patient care? *Br J Gen Pract* 49:317.
- Passaperuma K, Higgins J, Power S, Taylor T. 2008. Do patients' comfort levels and attitudes regarding medical student involvement vary across specialties? *Med Teach* 30(1):48–54.
- Price R, Spencer J, Walker J. 2008. Does the presence of medical students affect quality in general practice consultations? *Med Educ* 42:374–381.
- Prislin MD, Morrison E, Giglio M, Truong P, Radecki S. 2001. Patients' perceptions of medical students in a longitudinal family medicine clerkship. *Fam Med* 33(3):187–191.
- Salisbury K, Farmer EA, Vnuk A. 2004. Patients' views on the training of medical students in Australian general practice settings. *Austr Fam Physician* 33:281–283.
- Senf JH, Campos-Outcalt D, Kutob R. 2003. Factors related to the choice of family medicine: A reassessment and literature review. *J Am Board Fam Pract* 16(6):502–12.