Unmet expectations in primary care and the agreement between doctor and patient: a questionnaire study

Richard Hooper PhD,* Roberto J Rona PhD FFPH,† Claire French MSc DLSHTM,‡ Margaret Jones BA (Hons)‡ and Simon Wessely MD FRCP FRCPsych FMedSci§

*Lecturer in Medical Statistics, Department of Public Health Sciences, Guy's, King's & St Thomas' School of Medicine, London, †Professor of Public Health Medicine, Department of Public Health Sciences, Guy's, King's & St Thomas' School of Medicine, London, ‡Research Associate, Department of Public Health Sciences, Guy's, King's & St Thomas' School of Medicine, London and §Professor of Epidemiological and Liaison Psychiatry, Academic Department of Psychological Medicine, Guy's, King's & St Thomas' School of Medicine and Institute of Psychiatry, London, UK

Correspondence
Dr Hooper
Lecturer in Medical Statistics
Department of Public Health Sciences
Guy's, King's & St Thomas' School of Medicine
5th Floor, Capital House
42 Weston Street
London SE1 3QD
UK
E-mail: richard.hooper@kcl.ac.uk

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Abstract

Background Questionnaires completed respectively by doctor and patient may give conflicting views of what actions the doctor took during a consultation in primary care. This disagreement will affect an assessment of whether patient expectations of care were met, and may itself be influenced by fulfilment of expectations.

Objective To investigate how patient expectations, and patient and doctor reports of doctor's actions in a primary care setting are associated.

Design Questionnaire survey.

Setting Fifty Royal Navy, Army and Royal Air Force medical centres.

Participants A total of 117 members of the British Armed Forces with a health problem identified by a screening questionnaire, and their medical officers.

Main outcome measures Patient and doctor reports following a consultation indicating whether the doctor gave a prescription, made a referral or did tests, and patient expectations of these outcomes.

Results Agreement between patient and doctor (kappa) was 0.81 for prescribing, 0.69 for referral and 0.54 for tests. The prevalence of unmet expectations was higher when estimated from doctors' reports than from patients' reports (prescription $P = 0.016$; referral $P = 0.065$; tests $P = 0.092$; difference of 6% in each case). Patient and doctor were more likely to disagree on what happened if the action reported by the doctor did not match the patient's expectations (all $P < 0.01$, except for when doctor reported doing tests $P = 0.058$).

Conclusion Whether or not a doctor's actions appear to fulfil patient expectations in a primary care consultation depends on whether those actions are reported by the doctor or the patient.

Introduction

Patient expectations of care have been the subject of considerable research in primary care populations. It is common for doctors not to write a prescription or make a referral which patients were expecting,[1,2] and these unmet expectations are associated with increased patient dissatisfaction.[3–5] Conversely, where a doctor does fulfil expectations, for example by giving a prescription that a patient wants even when it is not needed, it may be to maintain a good relationship with the patient.[6] However, instances where the doctor gives a prescription that is unwanted are just as much a failure to meet the expectations as those where the doctor refuses the patient's request for one. Interviews with patients have established that patients who do not want a prescription will often not voice this during the consultation.[7] Certainly doctors' assessments of whether their patients want a prescription are not always correct,[3] and their decisions to prescribe are more closely related to perceived than actual patient expectations.[8–11] In the same way, doctors who perceive greater pressure from patients to make a referral are more likely to refer.[11,12] In one study where a patient presented with fatigue but with no neurological symptoms and asked for a neurology referral, 53% of doctors agreed to the patient's request.[13]

Many studies use a post-consultation questionnaire completed either by the doctor or the patient to determine what actions the doctor took during the consultation and thus whether the patient's expectations were met. However, it has been shown that doctor and patient questionnaires relating to the same consultation do not always agree with each other.[5,14] Comparison with direct observation has suggested that patient reports may in some respects give a more accurate picture of a primary care consultation than medical records.[15,16] Of course, whether it is possible to measure the 'truth' about what happens in a consultation, even using direct observation or review of medical records, is debatable: one study which used direct observation by a research nurse as a gold standard found that the sensitivity of the medical record for documenting referrals, for example, was only 58%, while the 'gold standard' itself only had an inter-rater reliability of 0.76 for recording referrals.[15]

Previous studies have not considered how patient expectations are related to the disagreement between doctor and patient, or conversely how this disagreement might affect our view of how often patient expectations are met, although these issues are important in the interpretation of studies dealing with fulfilment of patient expectations. In this paper we examine them using data from a series of consultations which formed part of a wider study of health screening in the British Armed Forces.

Methods

In the screening phase of the study, which is described elsewhere,[17–19] subjects were selected using a two-stage sampling process: a random sample of 100 British Royal Navy, Army and Royal Air Force units was selected, stratified by service and size of unit, and 45 individuals from each unit were then chosen at random to receive a screening questionnaire. This paper describes the results for the consultation phase of the study, in which all subjects from the screening phase who had a health problem detected by the screening questionnaire were invited to attend their medical centre for a consultation. (For the purposes of validating the screening questionnaire a similar number with no health problems detected were also invited to attend, although results are only presented here for those with health problems.) Subjects who had moved to another unit since the screening phase of the study were invited to attend the medical centre of their new unit.

Consultations took place between August 2002 and March 2003. Doctors were advised which subjects would be attending for a consultation, and were asked to make a routine assessment of each patient's current state of health focusing on any concerns the patient might raise. Neither the doctor nor the patient was told the result of screening. The doctor and the patient were both given a questionnaire to be completed after the consultation and returned by post. The doctor was asked 'What action did

you take as a result of this consultation?' and the patient was asked 'What action did the doctor take?'. Each respondent then indicated whether the doctor gave a prescription, gave advice, gave support, explained symptoms, arranged a follow-up visit, did a physical examination, did some tests, and/or referred the patient to someone else. Patient expectations concerning three of these actions – prescription, referral and tests – were also assessed. Patients were asked to reply 'yes' or 'no' to the following: 'Do you think you should have been given a prescription?', 'Do you think the doctor should have referred you to someone else?', and 'Do you think you should have had some tests?'.

Data analysis

Results are presented for those consultations where the doctor and patient both returned a questionnaire. Agreement between doctor and patient on actions taken during the consultation was measured using the kappa statistic. Associations between patient expectations and actions taken by the doctor were expressed as relative rates. Prevalence of unmet expectations based on the doctor's report and the patient's report, respectively, were compared using McNemar's test. Doctor–patient agreement in different subgroups was compared using Fisher's exact test. Relationships between doctor and patient reports and patient expectations were also investigated using log-linear models. All analyses were performed using Stata 7 (Stata Corporation, College Station, TX, USA).

The sample size was determined by the validation aspect of the screening study: we anticipated that as few as 200 subjects might be identified as having health problems and be willing to participate, which would still allow a positive predictive value of 60% to be estimated with a 95% confidence interval of $\pm 7\%$.

Results

There were 579 subjects with a health problem detected by the screening questionnaire who were still serving in the Armed Forces at the time consultations were scheduled. Of these 579 potential consultations there were 117 (20%) for which patient and doctor both returned a questionnaire, from a total of 50 different medical centres. Fifty percent of subjects who did not return a post-consultation questionnaire responded to a short follow-up questionnaire asking about their reasons for not attending, the commonest of which were work duties, lack of time, or lack of interest in the study. Responders included a lower proportion of men and a higher proportion of officers than non-responders, and were typically older than non-responders (Table 1).

The 117 consultations had a median length as reported by doctors of 10 min (interquartile range 5–15). Patient questionnaires were returned in a median time of 7 days following the consultation (interquartile range 5–12). Doctor questionnaires were usually returned in batches by medical centres and thus tended to take longer, being returned in a median time of 36 days following the consultation to which they referred (interquartile range 19–53).

Table 2 shows the agreement between doctor and patient concerning different actions taken by the doctor. There was reasonably good agreement on whether the doctor gave a prescription, arranged a follow-up visit, or referred the patient to someone else, and poorer agreement on whether the doctor did tests, made a physical examination, gave advice, explained symptoms, or gave support.

According to both patient and doctor reports of doctor's actions, patients who wanted a

Table 1 Patient characteristics

	Responders ($n = 117$)	Non-responders ($n = 462$)
Age [mean (SD)]	36.0 (8.4)	30.6 (7.7)
Sex (male)	97 (83)	416 (90)
Rank (officers)	31 (26)	56 (12)
Seen by		
Uniformed Medical Officer	31 (26)	
Civilian doctor	73 (62)	
Doctor did not specify	13 (11)	

Percentage values are given in parentheses.

Table 2 Doctor–patient agreement (measured using kappa) on action taken during the consultation

Action	Agreement (95% CI)
Gave prescription	0.81 (0.63–0.99)
Arranged follow-up visit	0.72 (0.54–0.91)
Referred patient	0.69 (0.51–0.87)
Did tests or arranged tests	0.54 (0.36–0.72)
Did physical examination	0.47 (0.29–0.65)
Gave advice	0.42 (0.24–0.60)
Explained symptoms	0.33 (0.15–0.51)
Gave support	0.31 (0.13–0.49)

prescription, referral or test were respectively more likely to get one than patients who did not want one, although these associations were weaker when assessed from doctor reports than from patient reports (Table 3). The proportion of patients with an unmet expectation (the doctor omitted an action the patient wanted or took an action the patient did not want) was higher when calculated from doctors' reports of their own actions than when calculated from patient reports (Table 4).

Table 5 shows that the patient and doctor were more likely to disagree on what happened if the action reported by the doctor did not match the patient's expectations. Agreement did not appear to be affected if the action reported by the patient did not match the patient's expectations. These results were confirmed by log-linear modelling of the associations between patient and doctor reports and patient expectations (this analysis could not be carried out for prescriptions because of a zero in the contingency table; see Table 6). The patient's report was associated with patient expectations even after adjusting for what the doctor reported happening (adjusted OR for patient reporting a referral, comparing patients who expected one with patients who did not is 34.0, 95% CI 5.0–232.4, $P < 0.001$; adjusted OR for patient reporting a test, comparing patients who expected one with patients who did not is 14.5, 95% CI 3.1–67.6, $P = 0.001$), but there was no evidence that the doctor's report was associated with patient expectations after adjusting for what the patient reported happening (adjusted OR for doctor reporting a referral, comparing patients who expected one with patients who did not is 2.2, 95% CI 0.3–17.9, $P = 0.47$; adjusted OR for doctor reporting a test, comparing patients who expected one with patients who did not is 1.3, 95% CI 0.3–5.5, $P = 0.74$).

Discussion

Summary of main findings

Doctor and patient did not always agree on the content of a consultation, and their perceptions were more likely to differ if the action reported by the doctor did not match the patient's expectations of treatment. Consequently the proportion of patients with an unmet expectation was higher when calculated from doctors' reports of their own actions than when calculated from patients' reports.

Table 3 Association between patient expectations and action taken during the consultation, as reported by patient and doctor respectively

	Patient wanted action taken		Patient did not want action taken			
	n	Action taken [*n* (%)]	*n*	Action taken [*n* (%)]	RR	95% CI
Patient report						
Prescription	18	18 (100)	99	4 (4)	24.8	9.5–64.6
Referral	22	17 (77)	95	5 (5)	14.7	6.1–35.5
Tests	34	13 (38)	83	3 (4)	10.6	3.2–34.8
Doctor report						
Prescription	18	15 (83)	99	8 (8)	10.3	5.1–20.7
Referral	22	13 (59)	95	8 (8)	7.0	3.3–14.8
Tests	34	10 (29)	83	7 (8)	3.5	1.4–8.4

Table 4 Rates of unmet expectations based on patient and doctor reports of doctor's actions

	Unmet expectations [*n* (%)]				
	Doctor report	Patient report	Difference	95% CI	*P*-value*
Prescription/no prescription	11 (9.4)	4 (3.4)	6.0	0.8–11.1	0.016
Referral/no referral	17 (14.5)	10 (8.5)	6.0	−0.3 to 12.3	0.065
Tests/no tests	31 (26.5)	24 (20.5)	6.0	−0.8 to 12.8	0.092

*McNemar test.

Table 5 Unmet patient expectations as determined from the doctor's report, and doctor–patient agreement

	Reported action matched patient's expectations		Reported action did not match patient's expectations		
Actions reported by doctor	*n*	Patients who agreed with doctor [*n* (%)]	*n*	Patients who agreed with doctor [*n* (%)]	*P*-value*
Prescription	15	15 (100)	8	4 (50)	0.008
No prescription	91	91 (100)	3	0 (0)	< 0.001
Referral	13	13 (100)	8	3 (38)	0.003
No referral	87	85 (98)	9	5 (56)	0.001
Tests	10	8 (80)	7	2 (29)	0.058
No tests	76	75 (99)	24	19 (79)	0.003

*Fisher's exact test.

Table 6 Unmet patient expectations as determined from the patient's report, and doctor–patient agreement

	Reported action matched patient's expectations		Reported action did not match patient's expectations		
Actions reported by patient	*n*	Doctors who agreed with patient [*n* (%)]	*n*	Doctors who agreed with patient [*n* (%)]	*P*-value*
Prescription	18	15 (83)	4	4 (100)	1.00
No prescription	95	91 (96)	0	0	–
Referral	17	13 (76)	5	3 (60)	0.58
No referral	90	85 (94)	5	5 (100)	1.00
Tests	13	8 (62)	3	2 (67)	1.00
No tests	80	75 (94)	21	19 (90)	0.63

*Fisher's exact test.

Strengths and limitations

The military population we were studying was younger than the general population and predominantly male. In addition, our sample was not necessarily representative of the population who decide themselves to make an appointment to see their doctor, but rather of the population who are positive on our screening questionnaire for health problems. For these reasons the rates we observed of prescribing, referring and testing, and patient expectations of these actions, will not necessarily apply to other primary care populations. However, in this paper we are more interested in patterns of association and agreement, and in the qualitative effect of using

patient reports over doctor reports, and these are more likely to be generalizable. In any case, in the United States, at least, military and civilian practices have been found to be similar to each other in terms of the rank order of diagnoses and doctors' actions.[20] It is also worth noting that a large proportion of the doctors in our study were civilian general practitioners rather than uniformed medical officers.

The response rate was low, although it should be borne in mind that servicemen who wanted to see a Medical Officer did not need our invitation to do so, and could have arranged a consultation outside the study period at a time that was convenient to them. Work duties, lack of time and lack of interest in the study were the commonest reasons cited by servicemen for not participating, and these problems were compounded when preparations for Operation Telic, the Iraq War, began part-way through the study, following which the response rate was almost halved.

Relation to other research and implications for future research

Previous studies have not considered how patient expectations relate to the disagreement between doctor and patient, or conversely how this disagreement might affect our view of whether patient expectations are met. We would expect the patient's and doctor's versions of events to be associated because they both reflect what really happened, rather than because one perception influences the other: the finding that the doctor's report tended to match with patient expectations therefore suggests that expectations had a real influence on the content of the consultation, and did not simply bias the patient's perception of what happened. The possibility remains, though, that the patient's reported expectations were themselves influenced by the patient's report of the doctor's actions (both filled in, after all, on the same, post-consultation questionnaire). Assessing expectations prior to the consultation would avoid this problem, although Ford and colleagues have pointed out that there are disadvantages with this approach too, because a pre-consultation assessment could alter patients' subsequent behaviour in the consultation.[21]

The observation that the association between the doctor's report and patient expectations disappears after adjusting for what the patient reported raises another possibility: that the patient's report is a much better proxy for what really happened than the doctor's report. It is interesting to note that in another study where patient and doctor questionnaires were both used, the patients' report appeared to have some predictive validity where the doctors' report did not: symptom alleviation 2 weeks after the consultation was more likely in patients who reported that their doctor provided diagnostic or prognostic information, although doctors' own reports of whether they provided this information did not predict the same outcome.[5] Although the authors concluded this was an effect of patient perception, it could again have been because the doctor's report was less reliable. Nevertheless, given the difficulties already discussed of finding a reliable, objective measure of what happens in a consultation it would seem advisable, as others have suggested,[22] to continue to use multiple methods for measuring the delivery of patient services in primary care research.

Conclusion

Whether or not a doctor's actions appear to fulfil patient expectations depends on whether those actions are reported by the doctor or the patient. It remains unclear whether the prevalence of unmet patient expectations in primary care is being underestimated by asking patients what doctors did, or overestimated by asking doctors what they did. It is also unclear which point of view, if either, is more relevant for predicting patient satisfaction and health outcomes, although it seems that many patients may be leaving the medical centre believing they got what they wanted while their doctors feel simultaneously reassured that they have not given in to patient pressure. Our results reinforce how important it is for a doctor to elicit patient

expectations in a consultation, and for doctor and patient to reach a decision together regarding the appropriate action to be taken.

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