

UK doctors' attitudes to the General Medical Council's Performance Procedures, 1997–99

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Objectives The UK General Medical Council's Performance Procedures were introduced in 1997. This study aimed to assess the changing knowledge and attitudes about the procedures in British doctors at the time of their introduction and in the following 2 years.

Methods Three questionnaire surveys, of separate representative samples of 800 UK doctors, were carried out in November of 1997, 1998 and 1999. The surveys assessed awareness of *Good Medical Practice*, attitudes to the Performance Procedures, agreement with Duties of a Doctor as a basis for disciplinary procedures, and attitudes to the Performance Procedures.

Results Although awareness of the procedures increased over the period 1997–99, there was no concurrent increase in agreement with the core principles of the procedures, the Duties of a Doctor, which are spelled

out in *Good Medical Practice*. Of 12 separate attitudes to the procedures, changes were found in eight over the time period, all but two of which were negative, and not in support of the procedures. Nevertheless many doctors were changing their practice as a result of the procedures, and that proportion increased during the period 1997–99.

Conclusions Although doctors became more aware of the procedures, that increasing awareness was not accompanied by an increasing agreement with the procedures' underlying principles or their wider implications.

Keywords Attitudes; doctors; General Medical Council; performance procedures; UK

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In July 1997 the UK General Medical Council (GMC) introduced its Performance Procedures which meant, as a result of the Medical Act of 1995, that for the first time doctors in the United Kingdom could have their registration either restricted or removed because of poor professional performance. The change has been described as the biggest change in the self governance of British doctors since the first Medical Act of 1858.^{1,2} Although in principle the change was introduced from July 1997, legal constraints meant that in practice no new cases could be commenced before September 1997, and as a result the first cases under the new procedures did not have their registration removed until December 1998. Since that time there has been a steady and growing number of cases under the procedures.

Although the Performance Procedures were introduced with the immediate intention of restricting the practice of a small percentage of particularly poorly performing practitioners, there is undoubtedly also a second agenda of trying to alter the practice of the majority of UK doctors. To take an epidemiological parallel, the intention is not merely to detect and prevent cases in the most extreme part of the distribution, but also to shift the mean of the entire distribution. For that to happen there should be changes in attitudes and behaviour in *all* doctors, not merely the small percentage who are likely to find themselves involved directly in the Performance Procedures.

The present study therefore set out, over several years, to assess the attitudes of UK doctors to the Performance Procedures, and to their intellectual underpinning in the form of the specific professional duties laid out by the GMC in its booklet *Good Medical Practice*,^{3,4} which in effect provides the standards of performance against which doctors in the procedures are judged.

The present report describes a 3-year study of UK doctors, looking at separate groups of randomly selected, representative samples who were studied in

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November 1997, just as the Performance Procedures were being introduced, and in November 1998 and November 1999, when they were already well established. In a previous paper⁵ we have described the development of the questionnaire, and the results from the November 1997 group of doctors, and looked at the relationship of knowledge and attitudes to background measures, in particular stress, burnout and response to uncertainty. Here we will concentrate on differences in response between the 1997 group and equivalent groups studied in 1998 and 1999.

For each year the essential methodological approach was equivalent, sending a postal questionnaire to a randomly sampled representative group of 800 doctors, stratified equally according to sex, type of practice, and year of qualification, with one in five qualifying outside the UK. It should be emphasized that in each year it was a separate group of 800 doctors who were studied, giving a total of 2400 doctors.

Methods

Sample

Stratified sampling of doctors was based on the *Medical Directory* and the *Medical Register*. Doctors were divided into eight groups by year of qualification (1955–59; 1960–65 ... 1990–94); by place of qualification (UK, i.e. England, Scotland, Wales and Northern Ireland; non-UK); by sex (male; female); and by speciality (general practice; hospital). Speciality was based on doctors' own description in the *Medical Directory*, and those not clearly identifying their speciality as general practice or a hospital-based speciality were omitted from the study. Doctors were sampled at random from the latest CD-ROM versions of the *Medical Directory*, with the intention of obtaining 20 UK and five non-UK qualified doctors with UK contact addresses in each of the combinations of grouped year of qualification by sex by practice type. This was achieved in all groups except in the 1997 study for those qualifying in 1990–94 at non-UK universities and working in general practice where only two males and two females were found in the *Medical Directory*. Doctors who had taken part in earlier studies were explicitly excluded from taking part in later studies, so that the 1997, 1998 and 1999 studies were completely independent.

The questionnaire

The questionnaire consisted of a folded sheet of A3 paper (four A4 sides), along with an additional detachable A4 sheet providing information about the

study. About a week before the first copy of the questionnaire was sent, the president of the GMC wrote to doctors asking them to assist with the study, reassuring them of its independence from the GMC, and enclosing a copy of *Good Medical Practice*. The first copy of the questionnaire was distributed in November 1997, 1998 and 1999, and reminders to non-respondents were sent in December, January and February. The present analysis considers all questionnaires returned by 25 March 1998, 1999 and 2000.

Piloting

Early versions of the questionnaire were piloted on about 20 hospital doctors and general practitioners of varying degrees of seniority. It should be noted that due to a minor error in the design of the questionnaire, introduced after piloting, some doctors at the start of the 1997 study failed to turn over to the last page on which there were questions about uncertainty in medical care, the social desirability measure, the General Health Questionnaire, and their response to the questionnaire itself. As soon as this problem was recognized, future questionnaires were stamped to remind respondents to turn over to the last page.

Attitude questions

The 12 attitude questions were developed by starting out with the results of 16 extensive interviews with doctors and NHS and trust executives (carried out by Ms Melanie Williams and Professor Allen Hutchinson) concerning the need for the Performance Procedures, and possible problems with them. Transcripts were read through by one of us (DG) who identified a large number of themes. From these, DG and ICM developed about 30 attitude questions that were then reduced to the final 12 after piloting, with refinement of content to avoid overlap, ambiguity and asking for multiple information in a single question.

Background measures

The questionnaire included a number of background measures to help in interpreting the answers given by the respondents. These were:

- *General health questionnaire*. The General Health Questionnaire (GHQ)⁶ was used in its 12-item version,⁷ which was scored on a 0–0–1–1 basis for assessing the prevalence of stress-related problems, and on a 0–1–2–3 basis for other statistical analyses.

- *Burnout*. A shortened version of the Maslach Burnout Inventory⁸ was used, with three items on each of the three subscales of emotional exhaustion, depersonalization, and personal accomplishment; high scores on the first two and low scores on the latter are associated with professional burnout.
- *Response to medical uncertainty*. A shortened version of the Physician's Reactions to Uncertainty scale⁹ was used, with two items from the scale assessing 'stress of uncertainty', and three items assessing 'reluctance to disclose uncertainty to others'.
- *Social desirability*. Two items (numbers 1 and 5) were included from a measure of social desirability designed for use in medical situations,¹⁰ which correlates with a short form of the more traditional and well-validated Marlowe-Crowne Social Desirability Scale.¹¹ These items are ones that even a paragon of perfection is unlikely to be able to agree to fully, and hence positive responses can be construed either in a negative sense as simple lying or, in more charitable, positive, terms, as 'social acquiescence', being an attempt to tell the researcher what it is thought they would like to hear, or to win their implicit approval.^{10,12}

Statistical analysis

The main interest of the present study was a comparison of the responses of the 1997, 1998 and 1999 groups. A trend across the 3 years of the study was assessed for non-normally distributed variables using Kendall's tau_c statistic (which only makes the assumption that the two variables are ordinal). For normally distributed measures the linear trend was assessed using one-way analysis of variance.

Results

Response rate

1997 study. Questionnaires were sent to 794 doctors. Thirty-five could not be delivered (returned by post office or the doctor was overseas). Responses of some sort were received from 591 doctors giving an overall response rate of 78% (591/759). Thirty-four doctors declined to take part and one said they would return the questionnaire later (they did not), giving 556 questionnaires containing useable data. The effective response rate was therefore 73% (556/759). Five questionnaires were returned anonymously and therefore not all background data were available for them.

1998 study. Questionnaires were sent to 800 doctors. Thirty-one could not be delivered (returned by post office or the doctor was overseas). Responses of some

sort were received from 641 doctors giving an overall response rate of 83% (641/769). Forty-seven doctors declined to take part giving 594 questionnaires containing useable data. The effective response rate was therefore 78% (594/759).

1999 study. Questionnaires were sent to 800 doctors. Twenty-five could not be delivered (returned by post office or the doctor was overseas). Responses of some sort were received from 585 doctors giving an overall response rate of 82% (635/775). Fifty doctors declined to take part giving 585 questionnaires containing useable data. The effective response rate was therefore 75% (585/775).

The response rate between subgroups was assessed using multiple logistic regression. There was no significant difference in response rate between males and females [80% (912/1146) vs. 82% (948/1153)], or general practice and hospital practice [80% (927/1161) vs. 82% (933/1138)]. The response rate did, however, differ by year of qualification (linear trend, $P = 0.0019$, quadratic trend, $P = 0.0014$; 1955–59 through 1990–94: 79, 80, 82, 85%, 84, 83, 79 and 75%, respectively), and was higher among doctors qualified in the UK [83% (1506/1823)] as compared with those qualified elsewhere [75% (354/476)]; odds ratio = 1.66, 95% CI = 1.30–2.11).

Doctors' knowledge of Good Medical Practice

Doctors were asked how much they knew about *Good Medical Practice* before receiving the present questionnaire. Table 1 shows that although a majority of doctors were aware of *Good Medical Practice*, relatively few had read it carefully. Although knowledge has increased significantly over the period 1997–99 (Kendall's tau_c = 0.085, $P < 0.001$), there has been only a small increase in the proportion of doctors with a good knowledge of *Good Medical Practice*.

Table 1 Doctor's knowledge of *Good Medical Practice* ('How much did you know about *Good Medical Practice* before you received a copy with the letter telling you about this questionnaire?')

	1997 (%)	1998 (%)	1999 (%)
Never seen a copy	11	8	7
Received a copy but not looked at it	6	5	6
Received a copy and glanced at it	32	23	26
Received a copy and looked through it	35	38	34
Received a copy and read it fairly carefully	13	23	23
Received a copy and know its contents well	4	3	4
N	547	580	583

How much doctors had heard about the Performance Procedures in the past year

Doctors were asked how often they had heard about the Performance Procedures in the past year from 10 different sources (Table 2). Information from almost all sources had increased significantly over the period

1997–99, the sole exception being from the GMC itself, where there was no evidence of an increase.

The duties of a doctor

In *Good Medical Practice* there is an explicit list of 14 duties of a doctor, preceded by the statement 'In

Table 2 'How often in the past year have you heard about the Performance Procedures?' *

	Never (%)	Once (%)	2–3× (%)	4–6× (%)	7–10× (%)	>11× (%)	N	Kendall's tau _c
Read about them in the quality medical journals (<i>BMJ</i> , etc.) (4)								
1997	28	30	34	6	1	1	521	$\tau_c = 0.201, P < 0.001$
1998	24	18	34	16	4	3	558	
1999	18	16	40	16	6	5	557	
Read about them in (free) medical newspapers or magazines (5)								
1997	41	17	31	9	2	1	513	$\tau_c = 0.204, P < 0.001$
1998	29	16	29	16	7	3	547	
1999	25	9	33	19	8	7	553	
Mentioned by colleagues in your own hospital or practice (8)								
1997	55	13	25	6	1	<1	513	$\tau_c = 0.283, P < 0.001$
1998	37	14	29	12	3	6	555	
1999	25	12	28	16	9	10	554	
Information from the GMC (1)								
1997	11	48	37	3	1	1	546	$\tau_c = 0.030, NS$
1998	13	40	38	7	1	1	569	
1999	14	43	36	5	1	1	563	
Information from the BMA or other professional organization (2)								
1997	36	33	27	3	1	<1	516	$\tau_c = 0.166, P < 0.001$
1998	28	23	37	9	2	1	552	
1999	23	27	38	8	2	2	546	
Read about them in the popular press (6)								
1997	73	16	11	<1	<1	<1	507	$\tau_c = 0.290, P < 0.001$
1998	45	17	25	8	2	3	544	
1999	35	18	32	9	3	4	552	
Heard about them at conferences or meetings (7)								
1997	67	16	14	2	<1	1	518	$\tau_c = 0.198, P < 0.001$
1998	53	18	20	6	2	1	550	
1999	42	17	29	8	3	2	547	
Information from health authority, trust or local medical committee (3)								
1997	69	16	12	2	1	<1	509	$\tau_c = 0.182, P < 0.001$
1998	56	20	17	4	1	2	530	
1999	46	23	21	7	2	1	540	
Mentioned by members of the general public (10)								
1997	95	3	2	<1	–	–	512	$\tau_c = 0.077, P < 0.001$
1998	85	5	7	2	<1	<1	548	
1999	85	7	7	1	<1	–	553	
Mentioned by patients (9)								
1997	98	1	<1	<1	–	–	512	$\tau_c = 0.039, P < 0.001$
1998	94	2	2	1	–	<1	550	
1999	93	4	3	–	–	–	551	

*The sources are ordered from most to least, with the original questionnaire order indicated in parentheses.

particular ... you must: ...'. Respondents were told that under the Medical Act of 1995, the GMC was empowered to restrict a doctor's registration for seriously deficient performance. They were then asked to consider a doctor who persistently and seriously failed on just one of the duties and to say whether or not they thought that failure on it *and it alone* should be sufficient reason to restrict or remove registration. Table 3 shows for the years 1997–99 the percentages of doctors who agreed that each of the duties was sufficient reason for restricting registration. The most striking thing about the result is that none of the duties has shown any significant change in the doctors' perception over the 3-year period. That is also true for an overall score⁵ derived from all 14 measures ($F_{1,1714} = 0.274$, NS), and from the two subscores derived from items relating to the right of the patient and the skills and attitudes of doctors ($F_{1,1711} = 0.048$, NS; $F_{1,1712} = 0.332$, NS).

Effects on doctors' practice

Doctors were asked about the effects of the Performance Procedures on their own practice, asking them briefly to describe 'Changes in [their] everyday practice' and 'Changes in [their] continuing medical education', each under the heading of 'What have you *already* done during the past year?' and 'What are you *considering* doing during the next year?'. For present purposes the answers were simply recorded as present or absent. Table 4 shows the percentages of doctors answering positively to each of the combinations, plus the numbers who had answered positively to at least one of the four. In the previous analysis⁵ of the 1997 data we had found that female doctors were significantly more likely than male doctors to report that they were making changes in response to the Performance Procedures. That finding was unexpected and we have therefore also looked for the same effect in the 1998 and 1999 data. Although overall in all 3 years women doctors did report a higher probability of making some changes (1997: males 39%, $N = 271$; females 55%, $N = 278$; 1998: males 50%, $N = 302$; females 54%, $N = 291$; 1999: males 60%, $N = 289$; females 66%, $N = 293$), the difference was not statistically significant in 1998 or 1999, suggesting it was not a reliable effect in 1997.

The need for the Performance Procedures

Doctors were asked how often they had been aware of doctors in their own professional experience *in the past 2 years* who should or could now have been considered under the Performance Procedures. Table 5 summarizes the results for the years 1997–99. The results are

remarkably similar in the 3 years, and there is no evidence that the numbers are either increasing or decreasing.

Attitudes towards the Performance Procedures

Twelve questions were asked about attitudes towards the Performance Procedures (Table 6). Eight questions showed significant changes over the period 1997–99. For two of the questions, the change can be interpreted as doctors becoming more sympathetic to the Performance Procedures, tending to agree more that the Performance Procedures are a desirable step towards regular recertification, and make it necessary for doctors to report deficient performance in their colleagues. The remaining six changes reflect attitudes that are becoming less sympathetic towards the Performance Procedures, not seeing them as reassuring the public, being reasons for more defensive practice, making all doctors vulnerable, being unfair to some types of doctor, impairing medical morale and teamwork, and being principally window-dressing.

Background measures

Table 7 shows the mean scores on the background measures for the doctors in the 1997, 1998 and 1999 studies. The GHQ shows a just significant trend ($P = 0.050$) towards increasing scores on the 0–1–2–3 scoring. However using the 0–0–1–1 scoring, with 'caseness' defined as a score of 4 or more, the proportion of cases in 1997, 1998 and 1999 is 17.1% ($N = 462$), 16.7% ($N = 551$) and 16.7% ($N = 550$); there is no evidence of a statistically significant trend. There is no evidence of significant trends in the three burnout scores. The stress from uncertainty score shows a significant trend but it is a *decrease* over the years 1997–99. In contrast there is no significant trend in the measure of reluctance to disclose uncertainty. There is no significant trend in the medical Lie scale.

Discussion

The GMC's Performance Procedures are a major innovation in the regulation of standards of professional practice in medicine. It is therefore important that the procedures' impact upon doctors is monitored and evaluated, and the impact is assessed not only in terms of doctors at the bottom end of the performance distribution, who might themselves be subject to the procedures, but across the entire range of performance. The present studies provide a clear picture of the attitudes and knowledge of representative samples of UK

Table 3 The proportion of doctors who agreed that failure on each of the *Duties of a Doctor* on its own would be sufficient justification for restricting the registration of a doctor*

	Definitely agree (%)	Probably agree (%)	Probably disagree (%)	Definitely disagree (%)	N	Kendall's tau _c
Avoid abusing their position as a doctor (13)						
1997	74	23	3	1	546	τ _c = 0.033, P = 0.05
1998	78	20	2	0	582	
1999	79	18	2	1	579	
Be honest and trustworthy (11)						
1997	72	23	4	1	550	τ _c = 0.020, NS
1998	74	21	4	<1	584	
1999	75	22	3	1	580	
Respect and protect confidential information (10)						
1997	68	29	3	1	549	τ _c = -0.004, NS
1998	71	25	4	<1	582	
1999	68	27	5	0	576	
Recognize the limits of their professional competence (8)						
1997	64	31	4	1	551	τ _c = 0.005, NS
1998	69	28	3	0	581	
1999	65	31	4	1	580	
Keep their professional knowledge and skills up to date (7)						
1997	56	40	4	1	550	τ _c = 0.037, P < 0.1
1998	59	35	6	<1	583	
1999	62	31	5	1	578	
Make the care of the patient their first concern (1)						
1997	52	38	9	2	548	τ _c = -0.013, NS
1998	52	38	7	3	582	
1999	50	40	8	2	578	
Respect patients' dignity and privacy (3)						
1997	52	36	11	1	551	τ _c = 0.000, NS
1998	52	38	10	1	578	
1999	52	35	12	1	580	
Make sure that their personal beliefs do not prejudice their patients' care (9)						
1997	49	37	11	2	546	τ _c = 0.000, NS
1998	53	36	11	1	578	
1999	48	42	9	1	579	
Act quickly to protect patients from risk if they have good reason to believe that they or a colleague may not be fit to practise (12)						
1997	36	47	14	3	548	τ _c = 0.005, NS
1998	38	48	13	2	577	
1999	38	44	16	2	575	
Work with colleagues in ways that best serve patients' interests (14)						
1997	38	40	20	3	546	τ _c = 0.015, NS
1998	40	42	16	2	581	
1999	39	41	18	2	577	
Listen to patients and respect their views (4)						
1997	34	45	18	3	549	τ _c = -0.014, NS
1998	34	45	19	1	579	
1999	32	45	20	2	547	
Respect the rights of patients to be fully involved in decisions about their care (6)						
1997	30	45	23	2	548	τ _c = 0.017, NS
1998	34	47	17	2	578	
1999	31	48	17	4	576	

	Definitely agree (%)	Probably agree (%)	Probably disagree (%)	Definitely disagree (%)	N	Kendall's tau _c
Give patients information in a way they can understand (5)						
1997	30	33	30	7	549	τ _c = 0.002, NS
1998	35	34	26	5	580	
1999	30	34	29	6	576	
Treat every patient politely and considerately (2)						
1997	25	38	27	10	548	τ _c = 0.013, NS
1998	31	34	27	8	580	
1999	26	37	30	7	578	

*The duties are ordered approximately from greatest to least agreement, with the original order in the questionnaire being indicated in parentheses.

Table 3 (Continued)

Table 4 The proportion of doctors who indicated they were making some change in their practice in response to the Performance Procedures

	1997 % (n)	1998 % (n)	1999 % (n)	Kendall's tau _c
<i>Changes in everyday practice</i>				
Already done during the past year	25 (554)	35 (593)	39 (582)	τ _c = 0.119, P < 0.001
Considering during the next year	24 (554)	33 (593)	38 (582)	τ _c = 0.123, P < 0.001
<i>Changes in continuing medical education</i>				
Already done during the past year	30 (554)	31 (593)	41 (582)	τ _c = 0.094, P < 0.001
Considering during the next year	30 (554)	35 (593)	46 (582)	τ _c = 0.144, P < 0.001
Any change in everyday practice or continuing medical education	47 (554)	52 (593)	63 (582)	τ _c = 0.140, P < 0.001

Year	Never (%)	Once (%)	2-3x (%)	4-6x (%)	7-10x (%)	>11x (%)	N	Kendall's tau _c
1997	63	21	13	1	<1	1	537	τ _c = 0.022, NS
1998	61	24	13	1	<1	1	566	
1999	60	21	17	2	<1	1	555	

Table 5 'How many times in the past 2 years have you come across doctors in your own professional experience who should or could now have been considered under the Performance Procedures?'

doctors when the Performance Procedures were introduced, and over the following 2 years.

The impact of the procedures is shown clearly in the increasing awareness of doctors of the procedures themselves, and the number and range of times during the past year that they have heard about them. Almost all the sources have shown highly significant increases (Table 2) over the past 3 years. In 1997 only 2% of doctors had heard comments about the procedures from patients and 5% from the general public; by 1999 those figures had trebled to 7% and 15%; and almost all of the other sources of information had shown a similar effect. The sole exception was information from the

GMC itself, which showed no increase over the time of the study. In part that reflects the fact that over 85% of doctors had heard something from the GMC, usually on one, or occasionally two or three occasions, so to some extent there is a ceiling effect. There is, however, also a possibility that high-quality factual information about the procedures from their primary source, the GMC, was instead being substituted by less objective, more partial, sometimes even ill-informed information from a range of other sources, which was undoubtedly growing in amount between 1997 and 1999.

The core of the Performance Procedures is *Good Medical Practice*, and while there was a small increase in

Table 6 The percentage of doctors who agreed with each of the attitudinal statements about the Performance Procedures*

Do you think the Performance Procedures:	Definitely agree (%)	Probably agree (%)	Probably disagree (%)	Definitely disagree (%)	N	Kendall's tau _c
Are well understood by most doctors? (1)						
1997	6	34	45	16	542	$\tau_c = 0.021$, NS
1998	9	35	44	11	576	
1999	5	38	44	13	571	
Are a desirable step towards the regular recertification of doctors? (11)						
1997	9	44	32	16	526	$\tau_c = 0.094$, $P < 0.001$
1998	10	50	30	10	565	
1999	10	54	30	6	562	
Are reassuring the general public that the medical profession can put its own house in order? (2)						
1997	9	54	34	5	541	$\tau_c = -0.084$, $P < 0.001$
1998	7	44	42	7	572	
1999	7	43	44	7	568	
Make it necessary for doctors to report deficient performance in their colleagues? (12)						
1997	14	56	26	5	530	$\tau_c = 0.043$, $P = 0.037$
1998	15	60	21	4	561	
1999	15	61	22	3	557	
Are a reason for doctors to be more defensive in their practice? (3)						
1997	21	40	30	8	539	$\tau_c = 0.074$, $P = 0.001$
1998	25	47	22	6	574	
1999	26	46	22	6	566	
Cannot be used fairly for problems of attitude, interpersonal behaviour or communication? (10)						
1997	16	45	32	7	528	$\tau_c = 0.022$, NS
1998	13	47	33	7	566	
1999	18	46	30	7	563	
Make all doctors vulnerable, because everyone does something everyday which might seem deficient? (6)						
1997	14	17	40	9	541	$\tau_c = 0.067$, $P = 0.002$
1998	37	44	30	10	570	
1999	16	43	32	7	564	
Are unfair to some types of doctor (e.g.) locums, single-handed practitioners, overseas graduates? (7)						
1997	8	24	50	18	529	$\tau_c = 0.058$, $P = 0.007$
1998	6	26	46	21	568	
1999	10	31	45	15	557	
Will affect GPs the most because hospital doctors find it easier to cover each others' deficiencies? (9)						
1997	9	25	45	22	529	$\tau_c = -0.005$, NS
1998	7	24	46	23	566	
1999	8	25	46	21	566	
Will impair medical morale and disrupt doctors' teamwork? (5)						
1997	6	25	53	16	538	$\tau_c = 0.116$, $P < 0.001$
1998	10	28	47	16	567	
1999	14	32	45	10	562	
Are principally window dressing to stop criticism from politicians and the media? (4)						
1997	7	28	48	17	542	$\tau_c = 0.050$, $P = 0.019$
1998	7	29	45	19	566	
1999	10	31	44	15	566	
Are only appropriate for problems of technical competence? (8)						
1997	2	16	52	30	532	$\tau_c = 0.040$, $P < 0.1$
1998	3	16	47	33	566	
1999	5	18	51	27	562	

*Statements are ordered from greatest agreement to least agreement with the Performance Procedures, based on a Thurstonian scaling using the program GUMJML¹⁵. The order of items in the original questionnaire is indicated in parentheses. Statistical comparison between years is by Kendall's tau_c statistic for ordinal measures.

Table 7 Changes in the background measures during the years 1997–99. Data shown are mean (SD; N)

	1997	1998	1999	Linear trend
General Health Questionnaire (0–1–2–3 scoring)	10.9 (4.8; 462)	11.3 (4.7; 551)	11.5 (4.8; 550)	$F_{1,1560} = 3.86, P = 0.050$
<i>Burnout</i>				
Emotional exhaustion	7.71 (4.23; 505)	7.88 (4.30; 545)	7.79 (4.54; 544)	$F_{1,1591} = 0.088, NS$
Depersonalization	2.86 (3.20; 506)	2.79 (3.22; 545)	2.79 (3.32; 544)	$F_{1,1592} = 0.129, NS$
Personal accomplishment	14.3 (2.9; 506)	13.8 (3.1; 545)	14.1 (3.0; 542)	$F_{1,1590} = 0.298, NS$
<i>Uncertainty</i>				
Stress from uncertainty	7.27 (1.82; 444)	7.17 (1.81; 539)	6.93 (1.83; 520)	$F_{1,1500} = 8.77, P = 0.003$
Reluctance to disclose uncertainty	5.01 (0.76; 456)	5.03 (0.80; 550)	5.00 (0.75; 547)	$F_{1,1550} = 0.063, NS$
Medical Lie scale	6.70 (1.03; 457)	6.75 (1.02; 551)	6.74 (0.97; 546)	$F_{1,1551} = 0.389, NS$

knowledge and awareness of it, the increase was surprisingly small, given the large increase in the amount doctors were hearing about the Performance Procedures. The 14 duties of a doctor, which are reprinted extensively in GMC publications (and which can be likened to a cross between the Hippocratic Oath and the Ten Commandments) are the central plank on which the Performance Procedures are built. In our previous study when the procedures were introduced, it was apparent that not all doctors agreed with all of them as the basis for disciplinary procedures. It might have been hoped that the situation would change during the introduction of the procedures, but the present data find no increase in acceptance of the Duties of a Doctor. It therefore seems that the increased awareness of the procedures is not being accompanied by an increased agreement with their philosophical core. That conclusion is supported to some extent by the attitudinal measures.

Doctors' attitudes towards the procedures in our initial survey showed some clear areas of concerns, so that, for instance, a third of doctors saw them as window-dressing, and would impair team work and medical morale. As the procedures have been introduced, and knowledge and awareness of them has increased, it might have been expected that the more negative attitudes would have softened. In practice the changes have been in the opposite direction, with increasing numbers of doctors seeing the Performance Procedures as making doctors vulnerable, as being unfair to some groups, and providing a reason for more defensive practice. The emphasis upon more defensive practice also raises the concern that one of the more positive findings in our study, the high and increasing number of changes being made to doctors' everyday practice and continuing medical education as a result of the procedures, may primarily be the consequence of

defensive practice. Taken together, these are worrying trends and suggest that, however effective the procedures are in practice, the message of their fairness and effectiveness, and indeed of their necessity in the medico-political framework in the 1990s and the new millennium, has not got across to doctors. Indeed there are strong suggestions within UK medicine in the years 2000 and 2001 of a more general backlash against the GMC¹³ and the very many changes that it has introduced into British medicine.

The introduction of the Performance Procedures, like any social change, has not been carried out in a vacuum, making difficult the interpretation of changes in a transverse, cross-sectional study such as the present one. For that reason we are currently undertaking a longitudinal evaluation of the 1997 cohort of doctors, which should help to clarify the causal mechanisms underlying change. For the present though it should be remembered that during 1997, 1998 and 1999 there was a series of medical scandals in the UK that achieved front-page publicity in the media. Foremost amongst these was what is simply called 'Bristol' by most UK doctors – the investigation into the deaths of a number of infants undergoing cardiac surgery at the Bristol Royal Infirmary. So great was its impact that the editor of the *British Medical Journal* simply entitled his editorial 'All changed, changed utterly'.¹⁴

In the context of so much other concurrent change it is difficult to pin down the precise cause of the changes we have described with respect to the Performance Procedures themselves. It may be that they are part of a more general change within UK doctors rather than a specific response to the procedures. Either way, if the procedures are to continue to be a success then it is desirable that doctors should believe in them and in their underlying principles.

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Conflict of interest

ICM was a member of the GMC's Performance Procedures Evaluation Group.

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