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RESEARCH

Impact of financial incentives on clinical autonomy and internal motivation in primary care: ethnographic study

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ABSTRACT

Objective To explore the impact of financial incentives for quality of care on practice organisation, clinical autonomy, and internal motivation of doctors and nurses working in primary care.

Design Ethnographic case study.

Setting Two English general practices.

Participants 12 general practitioners, nine nurses, four healthcare assistants, and four administrative staff.

Main outcome measure Observation of practices over a five month period after the introduction of financial incentives for quality of care introduced in the 2004 general practitioner contract.

Results After the introduction of the quality and outcomes framework there was an increase in the use of templates to collect data on quality of care. New regimens of surveillance were adopted, with clinicians seen as "chasers" or the "chased," depending on their individual responsibility for delivering quality targets. Attitudes towards the contract were largely positive, although discontent was higher in the practice with a more intensive surveillance regimen. Nurses expressed more concern than doctors about changes to their clinical practice but also appreciated being given responsibility for delivering on targets in particular disease areas. Most doctors did not question the quality targets that existed at the time or the implications of the targets for their own clinical autonomy.

Conclusions Implementation of financial incentives for quality of care did not seem to have damaged the internal motivation of the general practitioners studied, although more concern was expressed by nurses.

INTRODUCTION

International interest in using financial incentives to improve quality of care is growing. A report from the US Institute of Medicine advises that "pay for performance should be introduced as a stimulus to foster comprehensive and system-wide improvements in the quality of healthcare." In 2004 general practitioners in the United Kingdom were given substantial financial incentives to meet a range of clinical and organisational targets, known as the quality and outcomes framework. In the first year of these incentives high levels of achievement were reported and for some

conditions a significant increase was shown in the rate at which quality of care was improving.⁴

Financial incentives may, however, have unpredicted effects.⁵⁶ These include effects on motivation and morale. Many professional activities are intrinsically motivated—that is, they are carried out because the activity is inherently satisfying not because it carries an external reward, and there is evidence that internal motivation can be undermined by externally imposed incentives.⁷⁸ This is potentially of great importance as intrinsic motivation has traditionally been regarded as a key attribute of high quality professional practice.9 We studied the effect of the financial incentives on practice organisation and the consequences for internal motivation in primary care clinicians. We particularly studied how practices organised themselves internally to achieve high contract scores, as surveillance and checking mechanisms in practices could potentially undermine motivation by producing internal conflict within primary care teams.¹⁰

PARTICIPANTS AND METHODS

We approached four practices in deprived parts of the north west of England to participate in our study. Two agreed to take part: one had a registered list of 12 000 patients and the other 8000 patients. Both had long-standing local reputations for providing high quality care and achieved high scores in the first year of the quality incentive scheme. We had no prior hypotheses that might inform a sampling strategy and since gaining access was the most important criterion these practices were chosen because they agreed to grant us access.

The research was aimed at exploring individual and group attitudes and patterns of behaviour. We therefore used observation of staff within their milieu, together with interviews and some analysis of documentation (for example, clinical incident reports, letters of complaint, job descriptions). We observed the clinics, general practitioner and nurse consultations, working patterns in the office and reception area, and practice meetings. We also carried out informal conversations and interviews with staff in the reception area and in the kitchen where they eat lunch, take breaks, and prepare drinks. We collected data from November 2005 to May 2006. This period of five

months (allowing for holidays) enabled us to examine the impact of the contract in the run-up to the end of the target year (end of March 2006) and the immediate aftermath, including preparations for the new contract indicators introduced from April 2006.

As we aimed to explore the workings of the practice in the context of the new general practitioner contract we made no prior assumptions about relevant and nonrelevant activities so that data collection was relatively open ended. Data were collected by two of the researchers, neither of whom had connections with the practices: one is a general practitioner (KC) and the other (RM) an ethnographer. These levels of experience in general practice allowed the ethnographer to ask naïve questions whereas the other researcher's years of socialisation in similar settings proved a useful source of information. Also the longitudinal nature of the study was intended to reduce the problem of "reactivity"—the extent to which participants modify behaviour as a result of a heightened awareness of the observer. We used contemporaneous notes of proceedings at meetings for the construction of detailed notes. For conversations held in corridors, or other informal exchanges, and for one meeting held in a general practitioner's home, where note taking was impractical or would have inhibited candour, we made notes as soon as possible afterwards.

We carried out formal interviews with all but one of the doctors (12 general practitioners, two of whom were salaried), all nurses (nine), all healthcare assistants (four), and one practice manager and one senior receptionist in each practice. Participants were asked to describe their role and to comment on the new contract and its impact on their work.

Much of the data included here relates to interviews. However, observations and immersion in the practice informed the content of the interviews and enabled us to compare accounts with observed behaviours and to place accounts within context. It may also be that staff were less guarded in responses to interview questions because they were aware that the researchers had spent several months observing events and had a more rounded view of the practice than would otherwise have been the case.

From our observations we became aware of problems often not raised spontaneously in interviews, such as the tensions caused by the perception of free riding in one practice and the top-down surveillance processes in both practices. We were also able to draw on observational data to explore areas where informal accounts diverged from our observations. For example, we learnt that a general practitioner who had expressed his support for computerisation and the changes to working practices after the introduction of the quality and outcomes framework was actively resisting some of these practices in the consultation. This enabled us to examine the apparent contradiction in a taped interview during which this doctor admitted some degree of disaffection with and resistance to revised ways of working.

Two researchers (KC and RM) independently coded transcribed interviews to identify emerging themes. Analytical themes and observational notes were discussed with members of the research team at regular meetings throughout the study to test assumptions and to identify areas for further investigation. Because of possible differences in responses between profit sharing partners and salaried general practitioners (who might not participate in the financial rewards), we identify salaried doctors separately in the transcriptions.

RESULTS

Three major themes emerged from the analysis of transcriptions of staff observed and interviewed in two practices over five months after the introduction of the quality and outcomes framework: the alignment of financial incentives with professional values; concerns about changes to clinical practice; and the impact of surveillance within practices.

Alignment of financial incentives with professional values

Support for the financial incentive scheme was broad. Doctors and nurses generally reported that the quality and outcomes framework helped them provide what they regarded as high quality clinical care (box 1).

Concern about changes to clinical practice

Some concern was expressed that care might suffer from the introduction of targets that required

Box 1 | Alignment of financial incentives with professional values

"I think because it largely focuses on things which we should be doing anyway, it's just an additional motivation to make sure that we are practising good practice... overall it's good, and I think the fact that the QOF (quality and outcomes framework) is changing and we're getting new targets I think that's really important, so I'm quite positive about it really" (practice A, salaried general practitioner 9)

"But without a doubt, most GPs are now motivated to perform well on certain quality issues, particularly around secondary prevention. And I think that's a great thing. I mean it wasn't there before—there wasn't any quality, it was all about quantity. The more you saw and the more services you did to people, the more money you got. So I think it's very good really" (practice A, general practitioner partner 12)

"I enjoy being given the autonomy to manage the different diseases and manage my caseload. But also it's not just targets. The patient care has definitely improved because we've been doing that, and so I think some people believe we're just number-crunching, but I don't think we are in this practice, I think because we are actually meeting targets the patients' care is benefiting" (practice A, nurse 2)

"I mean certainly it's definitely an improvement on the previous system of payment . . . I think it is much more now in line with good medical practice and you get rewarded for that" (practice A, general practitioner partner 10)

respondents to do things that they did not regard as routine good clinical practice:

[About giving standardised questionnaires to patients with depression] "Does it help me with the depressed patient? I don't think it does. I think I was asking the questions anyway and I think doing the questionnaire actually detracts from the quality of the consultation" (practice B, general practitioner partner 1).

Despite overall support for the incentives, doctors and nurses in both practices described examples where the need to collect information affected the quality of individual consultations, with concern that the targets led to patients being treated "as a condition and not as the person that they really are:"

"I think there's just more onus on gathering information sometimes rather than seeing to the patient and caring for the patient and at the end of the day if a 92 year old lady is hypertensive and not on a statin... you get a bit frustrated with the QOF targets because they treat a person as a condition and not as the person that they really are, losing the individuality... That's the problem I have. If it's actually not pertinent to the person sitting in front of you, what am I asking it for? That becomes number crunching, it becomes ticking boxes, and that's the bit that I don't like. I think that frequently, that is the bit that is actually left to the nurses" (practice B, nurse 3).

This view was particularly prevalent among nurses, who were aware that much of the box ticking had been delegated to them. Templates in the electronic medical records were valued by staff as reminders of what to do but were considered as particularly constraining by nurses, who had less discretion than the doctors over their use. Some general practitioners were quite explicit that the process of following protocols was delegated to nurses, one doctor commenting that protocols didn't "float my boat" (box 2). However, this doctor was initially reluctant to voice criticism and did so only after we observed him avoiding completing templates in consultations. Although critical of the processes involved ("I hate it"), this doctor also expressed general support for the aims of the quality and outcomes framework. Some respondents described potential distortions of clinical practice through neglect of non-incentivised aspects of care, although they described these as occurring in other practices rather than their own:

"There are other practices who are even more organised than us, in terms of getting the QOF points, but slightly miss out the cultural attitudes towards the patients . . . they bish-bang-whallop through the scoring" (practice A, general practitioner partner 16) "Some practices say 'we won't do that because it's not a QOF thing, we're not going to look at it.' We've not found the QOF has restricted us because we're not here just to jump through those hoops. We're here to do the best care we can" (practice B, partner 3)

Box 2 | Concern about changes to clinical practice

"I thought that you were supposed to tailor this care to every individual patient and meet patient needs . . . I think it takes away patient centred care really . . . I don't think people appreciate being phoned up all the time and reminding them to come in and things . . . rightly or wrongly [this GP] strives for perfection and I think sometimes you have to acknowledge that you don't get perfection all the time and whenever you're dealing with patients and people you'll never get perfection anyway" (practice B, nurse 1)

"When you are filling a template in, you do feel a little bit like, you know, you're still listening to, you know, you are listening but you do feel a bit drawn away" (practice A, nurse 2)

"I never do [use templates] . . . I'm terrible. I mean our nurses are great at ticking boxes and using templates. They're really good at that and they love some structure . . . I actually find it quite depressing to think about really —it just doesn't float my boat . . . although I hate it, I do, you know, its very paradoxical but I actually think it's a good idea and I think it makes things tangible and em quantifies things" (practice B, general practitioner partner 4)

Surveillance of colleagues within practices

The practices had different approaches to monitoring clinicians' performance. In the larger practice individual staff were identified to lead on each area of the quality and outcomes framework, so that five nurses and three general practitioners had lead responsibility for one or more target areas. Each lead was free to decide how to organise the effort to achieve high performance levels and accepted responsibility for delivering targets. For nurses this delegated responsibility generally acted as a source of motivation. Clinical leads communicated areas of underperformance directly to their colleagues:

"I will go in and privately speak to them and explain why it's important . . . I did do one area of naming and shaming . . . that did work quite well . . . it's personal isn't it that you don't want to be seen as the GP who's falling down in a particular area?" (practice A, salaried general practitioner 9)

This approach sometimes caused frustration however:

"They forget we're actually nurses and we are seeing patients and that is our first priority. Then to be told 'we're one per cent down' [on a target], and you've not stopped all day because you've had poorly patients... that did get quite frustrating" (practice A, nurse 1)[On staff response to reminders about targets] "Some don't like it at all, and get quite miffed and don't talk to you for a few days afterwards" (practice A, practice manager 17) "You find you're almost being told off for not doing something... there is the potential and the reality of constantly being told off" (practice B, general practitioner partner 3)

General practitioners who were not clinical leads sometimes waited until they were found out, rather than proactively pursuing contract targets: [After a general practitioner away day discussion on free riding] "I just got into a rut I suppose and I was, you know, very comfortable just seeing patients and doing nothing or very little else but I feel I've got a responsibility and I feel an obligation to maybe em share myself more and be of more value in the practice" (practice A, general practitioner 10)

The implementation of the quality and outcomes framework was not initially perceived as controlling by these general practitioners, who were, by and large, content to let others take responsibility and to respond to prompts from colleagues:

"I think [QOFs] a fantastic idea really. And I love it frankly. Because in my old practice, I just had responsibility for everything . . . and so much more fell on my shoulders. If I was there now, I would be monitoring all this stuff. I'd be here in the evenings and the weekends, adding up numbers, as I know many GPs do. But here I just wait till someone says you know 'we're low on this target—pull your finger out.' 'Okay.' And I love that. I think that's how it should be" (practice A, general practitioner partner 12).

The small number of general practitioners who did complain about surveillance by colleagues also qualified this by expressing support for the quality and outcomes framework. Among general practitioners with direct responsibility for targets there was discontent at doctors perceived as "free riders." As a result new written policies were developed in the practice to guide general practitioners' behaviour. The timing of our study did not enable us to follow up the impact of this change in policy.

The smaller practice had a different style of implementation. The senior partner was a vigorous enthusiast for quality and outcomes framework targets, at times proposing clinical targets that were more stringent than those set out:

"Percentages are for wimps. I don't accept that once you've hit 90% or 70% that's OK. It's not OK. It means that 10% haven't been caught... We developed this zero tolerance to blood pressures a while ago. No one is allowed to say 'it's a little bit up leave it.' It's not acceptable. If you're not doing something about it, [you need to] be able to justify why you're not" (practice B, general practitioner partner 1).

This general practitioner monitored how other staff performed in their clinical work and acted on the findings on a day to day basis. As a result some of the staff felt that they were under constant surveillance. Despite this level of scrutiny, doctors and nurses in this practice still generally voiced positive attitudes to the quality and outcomes framework, although compared with the other practice overall critical comments were more common among nurses and those general practitioners who were "chased up."

DISCUSSION

In the United Kingdom the introduction of the quality and outcomes framework was broadly welcomed by doctors and nurses as providing incentives to provide high quality care. Our study found that implementation of the incentives scheme did not seem to have damaged the internal motivation of the general practitioners studied, although more concern was expressed by nurses.

Limitations of the study

The study has several limitations. The practices were a small convenience sample and do not provide representative views of those working in general practice. Moreover, motivation cannot be observed directly but must be inferred from the behaviour or reports of participants. The research also describes only the early stages of a process that is evolving and further research is needed to examine the longer term impact of the incentives. Concerns about observer bias may arise in a context where one of the authors (MR) was among a small group of academics that helped to develop the original quality and outcomes framework in 2002. Data collection was, however, carried out by researchers who had no involvement in this development, whereas interpretation of the data evolved during discussions among a research team whose normative views towards the quality and outcomes framework were broad, from largely supportive to sceptical. This range of opinion meant that emerging interpretations were subject to ongoing scrutiny and challenge, which is likely to have reduced the extent of bias. The strength of the study design lies in the indepth ethnographic approach to examine some fundamental underlying changes that may be taking place in practice. The generalisability of the results arises not from representativeness of the sample but from concepts that are likely to be relevant in other settings.¹¹

Changes in practice organisation

Our previous research12 predicted that financial incentives to improve quality of care will result in major internal reorganisation of practice, and we found this in both practices we studied. The most obvious change was the increased use of templates in electronic medical records to collect data on quality of care. 13 Work from our centre has previously suggested that general practice risks becoming reduced to a set of biomedical tasks14 and that the imposition of external guidelines will result in a "Fordist" or production line approach to clinical practice. 15 The nurses in our study were more sensitive to this matter than the general practitioners. The general practitioners maintained their claim to providing broader, less mechanistic care by explicitly or implicitly describing much of the work related to completion of clinical templates as a job for

In both practices the new contract led to increased surveillance of the clinicians. We have previously described the emergence of a new type of medical manager (restratification) at primary care trust level. ¹⁶⁻¹⁸ In the present study we describe new regimens of surveillance emerging within practices in response to the quality incentives. The clinician-patient interaction, traditionally beyond the observation of the outsider, has been opened up to scrutiny

WHAT IS ALREADY KNOWN ON THIS TOPIC

Financial incentives are believed to have improved the quality of chronic disease management in UK primary care

The incentives may, however, have unintended consequences, such as threats to professionalism and internal motivation

WHAT THIS STUDY ADDS

Doctors generally supported the quality and outcomes framework but were more negative about indicators that went beyond standard clinical practice

New regimens of surveillance developed in practices, and this was perceived as a threat to internal motivation, especially among nurses

both indirectly (by the development of clinical templates) and directly (by "nagging" and reminders). New strata are being created within practices of "chasers" and the "chased."

Although some general practitioners were able to resist attempts at control this gave rise to tensions in both practices. In the larger of the two practices, responsibility for delivering on quality incentives was more broadly spread across the clinicians, although even in this practice systems were being developed to deal with general practitioners who were perceived as not pulling their weight, and the practice was moving towards more centralised arrangements for the management of the quality and outcomes framework for the future. Nurses were less content with top-down surveillance as they were much less able than the doctors to resist attempts at scrutiny and control.

Alignment of external incentives with professional values In a previous study we argued that participation by English general practitioners in a quality improvement scheme, to their apparent financial disadvantage, could be explained by the coherence of internal and external goals. 19 In general the respondents in the present study thought that the quality indicators in the quality and outcomes framework acted as an incentive to provide what clinicians themselves regarded as good clinical care. Despite tensions we found little evidence that the quality and outcomes framework was a threat to the internal motivation or core values of the general practitioners or evidence of crowding out of internal motivation that may result from imposed external incentives.720 Greater concern was expressed about new quality indicators that had not previously been part of routine practice (for example, use of questionnaires for patients with depression and management of chronic renal disease). Nurses reported more conflict arising from the new style of work: some were positive about the quality and outcomes framework but others reflected views similar to another study, where nurses reported that the new contact had damaged nursepatient relationships and decreased job satisfaction.²¹

Conclusion

The United Kingdom, as with other countries, has introduced a series of measures in recent years to improve quality of care.²² Quantitative studies suggest that these changes have produced significant

improvements in some aspects of care.3423 Although adverse impacts on motivation are a potential drawback of financial incentives, all participants in our study expressed support for the quality and outcomes framework. This may in part be because, firstly, quality related incentives examined in this study build incrementally on the more modest incentives for particular procedures offered by earlier general practitioner contracts and are therefore already part of the social context of primary care. Secondly, participants generally equated pursuit of points on the quality and outcomes framework with quality of care, allowing them to perceive the incentives as aligned with pre-existing profesvalues. Thirdly, the general practice organisational and information technology changes that we have described embed the pursuit of points on the quality and outcomes framework into the everyday routines of general practices, thereby helping them to become features of primary care work that are taken for granted. Indeed, ambivalence and reluctant criticism in a small number of our study doctors may be indicative of the extent to which high performance on quality and outcomes framework targets is becoming accepted by doctors as synonymous with the delivery of high quality care. In such circumstances general practitioners may be reluctant to express dissent that renders them out of step with colleagues in their practice and wider. However, it is also possible that criticism voiced by a small number of doctors in this study relates not to incentives as such but to the manner in which they were implemented. The organisational changes associated with the implementation of the quality and outcomes framework in our study setting have the potential to fundamentally change the way clinicians relate to one another, and the long term consequences of these changes are hard to predict.

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Competing interests: MR was one of a small group of academic advisers to the BMA and NHS Confederation negotiating teams, which developed the original quality and outcomes framework in 2002.

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- Committee on redesigning health insurance performance measures, payment, and performance improvement programs. Rewarding provider performance: aligning incentives in medicare. Washington DC: Institute of Medicine, 2007.
- 2 Roland M. Linking physician pay to quality of care: a major experiment in the UK. N Engl J Med 2004; 351:1488-54.
- 3 Doran T, Fullwood C, Gravelle H, Reeves D, Kontopantelis E, Hiroeh U, et al. Pay for performance programs in family practices in the United Kingdom. N Engl J Med 2006;355:375-84.
- 4 Campbell S, Reeves D, Kontopantelis E, Sibbald B, Roland M. Improvements in clinical quality in English primary care before and after the introduction of a pay for performance scheme: longitudinal cohort study. N Engl J Med (In press).
- 5 Davies C, Anand P, Artigas L, Holloway K, McConway K, Newman J, et al. Links between governance incentives and outcomes: a review of the literature. Report to the National Coordinating Centre for Service Development and Organisation. London: SDO, 2005. www.sdo. lshtm.ac.uk/files/project/66-final-report.pdf (accessed 8 Jan 2007).

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- 6 Christianson JB, Knutson DJ, Mazze RS. Physician pay-for-performance. Implementation and research issues. J Gen Intern Med 2006;21:S9-13.
- 7 Deci EL, Ryan RM. Intrinsic motivation and self-determination in human behavior. New York: Plenum, 1985.
- 8 Deci E, Koestner R, Ryan R. A meta-analytic review of experiments examining the effects on extrinsic rewards on intrinsic motivation. *Psychol Bull* 1999;125:627-88.
- 9 Marshall M, Harrison S. It's about more than money: financial incentives and internal motivation. Qual Saf Health Care 2005;14:4-5.
- 10 Holmstrom B. Moral hazard in teams. Bell J Econ 1982;13:324-40.
- 11 Green J. Generalisability and validity in qualitative research. BMJ 1999;319:421.
- 12 Roland M, Campbell S, Bailey N, Whalley D, Sibbald B. Financial incentives to improve the quality of primary care in the UK: predicting the consequences of change. *Primary Health Care Res Develop* 2006;7:18-26.
- 13 Campbell S, Wilkin D, Roland M. Primary care groups and trusts in the new NHS: improving quality of care through clinical governance. *BMJ* 2001;322:1580-2.
- 14 Charles-Jones H, Latimer J, May C. Transforming general practice: the redistribution of medical work in primary care. Sociol Health Illn 2003;25:71-92.

- 15 Harrison S. New labour, modernisation and the medical labour process. J Soc Policy 2002;31:465-85.
- 16 Sheaff R, Smith K, Dickson M. Is GP re-stratification beginning in England? Soc Policy Adm 2002;36:765-79.
- 17 Harrison S, Dowswell G. Autonomy and bureaucratic accountability in primary care: what English general practitioners say. Sociol Health Illn 2002;24:208-26.
- 18 Sheaff R, Rogers A, Pickard S, Marshall M, Campbell S, Roland M, et al. A subtle governance: 'soft' medical leadership in English primary care. Sociol Health Illn 2003;25:408-28.
- 19 Spooner A, Chapple A, Roland M. What makes British general practitioners take part in a quality improvement scheme. *J Health Serv Res Policy* 2001;6:145-50.
- 20 Gagné M, Deci E. Self determination theory and work motivation. J Organ Behav 2005;26:331-62.
- 21 Mercer SW, McGregor W. New contract reduces quality of patientnurse relationship. BMJ 2007;2334:8.
- 22 Lanier DC, Roland M, Burstin H, Knottnerus JA. Doctor performance and public accountability. *Lancet* 2003;362:1404-8.
- 23 Campbell S, Roland M, Middleton E, Reeves D. Improvements in the quality of clinical care in English general practice 1998-2003: longitudinal observational study. *BMJ* 2005;331:1121-3.

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