Scandinavian Journal of Primary Health Care

ISSN: 0281-3432 (Print) 1502-7724 (Online) Journal homepage: https://www.tandfonline.com/loi/ipri20

General Practitioners' Attitudes to a Recent Change in their Remuneration System

Allan Krasnik, Peter V. Scholten & Mogens Trab Damsgaard

To cite this article: Allan Krasnik, Peter V. Scholten & Mogens Trab Damsgaard (1991) General Practitioners' Attitudes to a Recent Change in their Remuneration System, Scandinavian Journal of Primary Health Care, 9:2, 83-87, DOI: 10.3109/02813439109026589

To link to this article: https://doi.org/10.3109/02813439109026589

Published online: 12 Jul 2009.

Scand J Prim Health Care 1991; 9: 83–87

General Practitioners' Attitudes to a Recent Change in their Remuneration System

ALLAN KRASNIK[1], PETER V. SCHOLTEN[2] and MOGENS TRAB DAMSGAARD[1]

[1]Institute of Social Medicine, University of Copenhagen, Denmark, [2]The Central Research Unit for General Practice, Copenhagen, Denmark

Krasnik A, Scholten PV, Damsgaard MT. General practitioners' attitudes to a recent change in their remuneration system. Scand J Prim Health Care 1991; 9: 83–7.

The study examines the attitudes of general practitioners in Copenhagen to a recent change in their remuneration system from capitation to a mixed capitation and fee-for-service system. The study was based on two questionnaires, one before and one 18 months after the change, distributed to a primarily self-selected sample of 100 general practioners in Copenhagen City. The questionnaires provided information about certain basic characteristics of the respondents, attitudes to the new remuneration system as compared with the former, and possible changes in attitudes towards professional competence and responsibilities in secondary versus primary care.

The majority of the respondents did not feel any changes under the new remuneration system in terms of diagnostic and curative possibilities and their relations to colleagues and patients. Attitudes to secondary versus primary care responsibilities also changed little. The majority felt that there had been an increase in their total work load, but also an improved economic situation in their practice. 21% felt that there was more competition with colleagues and 30% that doctor-patient relationships had suffered as a result of the introduction of a fee-for-service.

Key words: general practitioner, primary health care, general practitioner attitude, health care financing, health care organization.

Allan Krasnik, MD, Institute of Social Medicine, University of Copenhagen, Panum Institute, Blegdamsvej 3, DK-2200 Copenhagen, Denmark.

The way general practitioners (GPs) are paid has important implications for doctors, patients, and third parties involved in the organization and financing of general practice. Policy-makers generally believe that the system of payment should ideally advance policy objectives, promote high quality medical care, and limit unnecessary resource use (1). Patients probably prefer to think of doctors' behaviour as being based primarily on professional judgement and independent of economic motives. The attitudes of doctors towards the way they are paid have seldom been the object of specific studies.

This study examines the attitudes of GPs in Copenhagen City to a recent change in the remuneration system from a capitation to a mixed capitation and fee-for-service system. It is part of a larger before and after study investigating the effects of the change on activities in general practice (2).

All GPs in Denmark have a contract with the public health authorities, but before October 1987 there were two different payment systems: a capitation system in Copenhagen City and a mixed capitation and fee-for-service system in the rest of the country. During the period before 1987, the GPs' income in Copenhagen fell behind their counterparts in the rest of the country, and simultaneously the Copenhagen doctors experienced an increased work

The study is part of a larger project carried out by a Danish-Dutch research group consisting of the authors and Peter P. Groenewegen, Poul A. Pedersen, Gavin Mooney, Adam Gottschau, and Henk Flierman.

Table 1. *Perception of diagnostic and curative possibilities in general practice after the change.*

	Diagnostic possibilities			Curative possibilities		
	♂ No. (%)	♀ No. (%)	Total No. (%)	♂ No. (%)	♀ No. (%)	Total No. (%)
Improved	28 (40)	4 (19)	32 (35)	20 (29)	3 (14)	23 (25)
Unchanged	41 (59)	15 (71)	56 (62)	49 (70)	16 (76)	65 (72)
Reduced	1 (1)	0 (0)	1 (1)	1 (1)	0 (0)	1 (1)
Don't know	0 (0)	2 (10)	2 (2)	0 (0)	2 (10)	2 (2)
Total	70 (100)	21 (100)	91 (100)	70 (100)	21 (100)	91 (100)

Mantel-Haenszel chi-square test comparing males and females:
Diagnostic possibilities: $\chi^2 = 6.557$, $p = 0.01$, $df = 1$
Curative possibilities: $\chi^2 = 5.204$, $p = 0.02$, $df = 1$

load. The GPs' organization in Copenhagen therefore sought to change to the system in the rest of the country, and this was agreed by the Copenhagen health authorities. The fee-for-service part (constituting about two-thirds of the total income) provides fees for face-to-face consultations, contultations by telephone, home visits, and repeat prescriptions. Additional fees are paid for a number of special diagnostic and curative services and a few preventive services. (Fees were also paid for preventive services before the change).

SUBJECTS AND METHODS

The study was based on a follow-up design involving data collection before and after the change in Copenhagen. Among the 265 GPs, who cater for a population of 470,000, 140 (53%) agreed to take part in the study involving patient contact registration (3 × one week) and the filling in of questionnaires on two occasions. Ten GPs were excluded because they were tutors of trainees and 100 were selected randomly from the remainder.

A questionnaire sent to the 100 GPs in February 1987, before the change, was answered by 97, whereas a second questionnaire distributed in November 1989 (two years after the change) was answered by 91 doctors, all of whom were respondents to the first questionnaire. Two of the non-respondents died beween the two rounds. Only data from the 91 who replied on both occasions are used below.

In the first questionnaire data were collected on the basic characteristics of the doctors such as age, sex, years in general practice, and type of practice (single or group). Attitudes towards professional competence and responsibilities in secondary care versus primary care were measured by 10 questions in which respondents were asked to state whether they agreed fully or partly or disagreed fully or partly vith such statements as:

"The control of chronically ill patients should be mainly the responsibility of specialists".

"A great deal of diagnostic activities which are currently undertaken by specialists could be done in general practice".

"As long as the patient is treated by a specialist, the general practitioner should not interfere with the treatment".

The second questionnaire contained questions on attitudes to the new remuneration system compared with the former in terms of the general level of service, diagnostic and curative possibilities in practice, total work load and time spent on accounting, practice economy, general satisfaction of work, relations to colleagues, and the doctor-patient relationship. The 10 statements on competence and responsibility in secondary versus primary care were also included in the second questionnaire to evaluate possible changes in attitudes as a consequence of the change in the remuneration system.

Of the 91 doctors who answered both questionnaires, 51% were aged 41–50 years in 1987, 26% were 40 or less, and the remainder (23%) were over 50. The majority (77%) were males. 30% had 5 years or less of working experience in general practice, 23% 6–10 years, and 47% more than 10 years. 34% worked in a group practice in 1987, increasing to 36% in 1989.

A comparison by sex and time since graduation of

Table II. *Perception of practice economy after the change by age.*

	Age				
	≤40 years No. (%)	41–45 years No. (%)	46–50 years No. (%)	>50 years No. (%)	Total No. (%)
Improved	19 (79)	21 (81)	10 (50)	10 (48)	60 (66)
Unchanged	3 (13)	3 (11)	8 (40)	8 (38)	22 (24)
Reduced	0 (0)	1 (4)	1 (5)	2 (99)	4 (4)
Don't know	2 (8)	1 (4)	1 (5)	1 (5)	5 (6)
Total	24 (100)	26 (100)	20 (100)	21 (100)	91 (100)

Cochran's test for linear trend in age ('Improved' vs. 'Unchanged'): 7.889, p = 0.005, df = 1.

the participating and all the non-participating doctors practicing in Copenhagen City showed no significant differences ($p>0.05$).

Possible associations between each variable on attitudes and each of the background variables (age, sex, years in general practice and type of practice) were tested with the Mantel-Haenszel chi-square test or Cochran's test for linear trend, while McNemar's test was used to compare attitudes before and after the change. Significance levels were set as 0.05.

RESULTS

Many respondents (43%) thought that the new remuneration system improved the possibilities of providing a better service for the patients, a small group (7%) indicated that the possibilities had been reduced, but almost half (48%) thought that the change did not make any difference to the general level of service (2% did not know). No association was found with age, sex, years in practice, or type of practice.

35% answered that the diagnostic possibilities had improved due to the new system, while 25% said the same about the curative services (Table I). Only one respondent indicated that the diagnostic or curative possibilities in general practice had been reduced, and about ⅔ (62% and 72%) did not feel any change in this respect. As shown in the table, these answers were significantly associated with sex, so that male doctors were clearly more positive than female doctors, whereas no differences were found with age, years in practice, or type of practice.

86% of respondents felt that the total work load had increased after the change, 14% did not feel any change, and nobody indicated that the work load had been reduced.

With the introduction of fee-for-service, every patient contact is documented by a bill. The weekly work load related to the billing system was indicated as less than 30 minutes by 11%, 30 minutes by 22%, 31–60 minutes by 43%, and more than one hour by the remaining 24%. 29% indicated that, after the change, they had to spend more time in meetings with colleagues on organizational problems in general practice.

Two-thirds indicated that the practice economy had improved due to the change in payment system (Table II), and only 4% said that their economic situation had worsened. There was a clear trend ($p<0.01$) for younger doctors, compared with older, to indicate an improved economic situation in their practice, whereas no association was found with sex or other background variables.

Does the introduction of a fee-for-service element change the relations between GPs? 21% felt that the relationship with colleagues had become more competitive, 78% thought that there was no change, and only one respondent felt that the element of competition had been reduced. No differences with age, sex, years in practice, or practice type were found.

Further, according to the respondents, the doctor-patient relationship had been affected in some cases by the change. The respondents were asked whether they felt that the introduction of a bill had any influence on the quality of the doctor-patient contact, and 30% answered that it had had a negative effect. Only 3% had experienced a positive effect, 3% felt that the effect was unclear, and the majority (64%) indicated that in their opinion there was no effect at all. Again the analyses showed no association with the four background variables.

Attitudes to professional competence and responsibilities were examined before and after the change

Table III. *Response, before and after the change, to the statement: "A great deal of the diagnostic activities currently conducted by specialists could be transferred to general practice".*

Attitude before the change	Attitude after the change		Total No.
	Fully or partly agree No.	Fully or partly disagree No.	
Fully or partly agree	30	26	56
Fully or partly disagree	9	17	26
Total	39	43	82

Non respondents: 9
McNemar test: $p<0.01$.

by comparing answers on this issue from the first to the second questionnaire. Nine of the 10 questions on this subject showed only small and insignificant differences (McNemar test: $p>0.05$), and no systematic trend was found. In one question, however, a significant difference was found (Table III). When asked whether diagnostic activities currently being carried out by specialists could be transferred to general practice, 26 fewer of the respondents agreed with this statement after the change while only 9 shifted in the opposite direction ($p<0.01$).

To get an indication of the general reaction to the change to the mixed capitation and fee-for-service system, the respondents were asked whether their work was generally more satisfactory, unchanged, or less satisfactory than before the change. 34% felt that the work was now more satisfactory, 26% that it was less satisfactory, and 36% noticed no change (3% did not know). Again there was no association with the four background variables.

DISCUSSION

The participating doctors did not represent a random sample of the GPs in Copenhagen. While no difference was found for age and years since graduation between participating and non-participating doctors, it should be recognized that the element of self-selection might cause a selection bias and the results might not reflect accurately the attitudes of Copenhagen doctors more generally. An earlier study among GPs in Copenhagen County (3) showed that, compared with doctors participating in research that entailed contact registration, those not participating were more positive towards general practice as a form of free enterprise. On the basis of this evidence, the participants in our study might express more negative feelings towards the new (and more 'liberal') remuneration system than non-participating doctors.

The introduction of the fee-for-service element influenced the activities of the GPs towards more diagnostic and curative services (2). However, the majority of the responders expressed the view that no change in diagnostic and curative possibilities had occurred. This might be seen as an indication that the doctors did not directly relate their change of behaviour to the change in remuneration system, or it might simply reflect lack of a general view of the level of their own activities.

The vast majority of doctors felt that their total work load after the change had increased. This probably reflects the actual general increase in patient-oriented activities (2), but also the extra time spent on accounting and meetings. A general tendency towards a feeling of being more busy and overworked over time was found among the majority of British GPs in 1977 compared with 13 years earlier (4) – partly seen as a consequence of a change in doctors' work expectations. Because of the much shorter time dimension in our study, such changes in expectations probably played a very small role – and the responses are likely to reflect real changes in work load.

Why one out of five respondents felt more competition between GPs after the change is unclear. Possible explanations could be a feeling of threat from more investments by colleagues or the fact that a relatively large group of young GPs had been allowed to establish new practices in the city in the period after the change.

Nearly one third of the participants felt that the new system influenced doctor-patient relationships in a negative way, and only very few felt a positive

effect. An increased awareness of the use of time and resources among the doctors and the increased priority given to those services bearing a fee are possible explanations. This is supported by statements in the questionnaire by some participating doctors describing how the mere existence of a bill signed by the patient interfered with the doctor-patient relationship. Some respondents stated that the patient contact was suffering from the fact that the nature of the fee system supported professional interest in biological rather than psychological aspects of care.

The introduction of fee-for-service might affect GPs' attitudes to professional competence and responsibilities in general practice versus specialist services. A change to greater emphasis on own competence and less on the need for specialist care could be expected. This was tested by comparing answers to a number of attitudinal questions before and after the change. Generally only small, insignificant, and unsystematic differences were found, indicating that attitudes of this kind are quite stable and probably developed over years by joint influences of selection and socialization (5). The change of attitudes regarding the transfer of activities from specialists to GPs could be seen as a result of the fact that such transfers actually had taken place after the change (2). Thus the needs expressed before the change were now covered and the respondents might have felt that an optimal balance had been found between the two levels of services.

The new remuneration system was introduced primarily on the basis of strong pressure from the GPs in Copenhagen City and one could expect that the majority of GPs would feel more job satisfaction after the change. However, only a third of the respondents actually expressed more positive feelings, whereas a quarter felt that the work was less satisfactory. This might be a result of the selection of participants, as indicated earlier, but it might also be seen as a reaction to the increased work load and the more competitive patterns related to the new system.

Analysing the responses by background characteristics of the GPs showed very few differences. That male doctors were more positive towards the diagnostic and curative possibilities under the new system than their female counterparts can be seen as a result of age and sex differences in the composition of their enlisted patients, or as an effect of a greater "equipment orientation" among male doctors. This agrees with other studies (5, 6) showing that female GPs are more socially orientated, giving more weight to psycho-social dimensions of disease, mutuality, and patient communication. The otherwise small and insignificant differences between subgroups in our study might be a result of the small sample size. The homogeneity of GPs regarding attitudes of this kind, however, has been seen in several studies (7–9) and probably reflects the dominant professional ideology developed among GPs (5).

ACKNOWLEDGEMENTS

We wish to thank the general practitioners in Copenhagen for their positive participation and efforts in the collection of data.

REFERENCES

1. Rosen B. Professional reimbursement and professional behavior: emerging issues and research challenges. Soc Sci Med 1989; 29: 455–62.
2. Krasnik A, Groenewegen PP, Pedersen PA et al. Changing remuneration systems: effects on activity in general practice. Br Med J 1990; 300: 1698–701.
3. Gannik D, Frimodt-Møller B, Heldrup J, Hollnagel H, Pedersen PA. Diagnostik og behandling i almen praksis. 6. Praktiserende lægers holdninger – en undersøgelse fra Københavns amt. (Diagnosis and treatment in general practice. 6. Attitudes of general practitioners. A study in Copenhagen County). (English Summary). Ugeskr Læger 1989; 151: 165–72.
4. Cartwright A, Anderson R. Patients and their doctors 1977. Report of some changes in general practice between 1964 and 1977 for the Royal Commission on the National Health Service. London: R Coll Gen Pract 1977.
5. Gannik D, Frimodt-Møller B, Heldrup J, Hollnagel H, Pedersen PA. Diagnostik og behandling i almen praksis. 5. Praktiserende lægers holdninger – en oversigt. (Diagnosis and treatment in general practice. 5. Attitudes of general practitioners). (English Summary). Ugeskr Læger 1989; 151: 161–5.
6. Calnan M. Images of general practice: the perceptions of the doctor. Soc Sci Med 1988; 27: 579–86.
7. Cockburn J, Killer D, Campbell E, Sanson-Fisher RW. Measuring general practitioners' attitudes towards medical care. Fam Pract 1987; 4: 192–9.
8. Ku L, Fisher D. The attitudes of physicians toward health care cost-containment policies. Health Serv Res 1990; 25: 25–42.
9. Bucks RS, Williams A, Whitfield MJ, Routh DA. Towards a typology of general practitioners' attitudes to general practice. Soc Sci Med 1990; 30: 537–47.

Received September 1990
Accepted December 1990