Sources of influence on medical practice

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Abstract

Objectives—To explore the opinion of general practitioners on the importance and legitimacy of sources of influence on medical practice.

Methods—General practitioners (n=723) assigned to Primary Care Teams (PCTs) in two Spanish regions were randomly selected to participate in this study. A self administered questionnaire was sent by mail and collected by hand. The dependent variable collected the opinion on different sources that exert influence on medical practice. Importance was measured with a 9 item scale while legitimacy was evaluated with 16 items measured with a 1 to 7 point Likert scale.

Results—The most important and legitimate sources of influence according to general practitioners were: training courses and scientific articles, designing self developed protocols and discussing with colleagues. The worst evaluated were: financial incentives and the role played by the pharmaceutical industry.

Conclusions—The development of medical practice is determined by many factors, grouped around three big areas: organisational setting, professional system and social setting. The medical professional system is the one considered as being the most important and legitimate by general practitioners. Other strategies of influence, considered to be very important by the predominant management culture (financial incentives), are not considered to be so by general practitioners. These results, however, are not completely reliable as regards the real network of influences existing in medical practice, which reflect instead different "value systems".

(*J Epidemiol Community Health* 2000;**54**:623–630)

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Health systems are facing permanent challenges to be more responsive to their populations' demands and to achieve greater efficiency in dealing with health needs and the use of resources. Characteristics of demand are changing and users deem the satisfaction of health care's psychosocial aspects to be very important.[1] The concept of quality has widened to include aspects such as: patients' personal care, the provision of adequate information, improved communication, and emphasis on non-tangible qualities within the health care framework such as concern, friendliness or politeness.

The technical definition of quality is also challenged by the existence of medical practice variations. Medical practice variations are systematic differences in the standardised incidence rate of clinical procedures in a specific population. They can result from different approaches to the same clinical problem or to inappropriate clinical decision making. These variations can also have an effect on the allocation of resources.[2–7] Medical practice variations occur in all kinds of health systems, including national health services (NHS) (United Kingdom, Spain), social insurance (Germany, France) or voluntary insurance (USA).[8]

General practitioners not only care for their patients but also directly manage most of the resources and relations that interact within the health system.[9] They are responsible for diagnostic test administration, therapeutic prescriptions, length of visits, referrals to hospitals, etc. This is true for more controlled health systems, such as in the UK or Spain where the GP acts as the "gate-keeper," as well as for liberal health systems, like the USA, in which health maintenance organisations play an increasing part. Health management strategies should be oriented towards ensuring overall quality, cost efficiency in the provision of care,[10] and the use of different "sources of influence"[11 12] to encourage the system to provide optimal medical practice.

Management mechanisms that recognise the existence of the professional system and actively use it, are those that seem to exert a greater influence on certain changes in medical practice.[13] The professional system could be defined as a widely accepted, socially legitimated, and legally recognised set of shared traditions, norms and values that "truly" define good medical practice[14] and, thus, the main element that regulates professional practice (fig 1). Those who manage professional practices have to consider the relationship between the professional and the user as central to the health services and recognise that different patterns of medical practice are determined by two factors: the social, cultural and economic setting where the service is carried out (social setting) and the organisation of the health system itself (organisational setting).

Reforms in all systems have relied on organisational and managerial changes such as an increase in the number of health maintenance organisations, greater emphasis on managed care, or the separation of funding from provision of care. Primary health care reforms in Spain have improved the availability, accessibility, and quality of professionals and facilities without questioning such premises as universal coverage, publicly financed health care, and free cost at the moment of use. Strategies such as the implementation of formal protocols, the
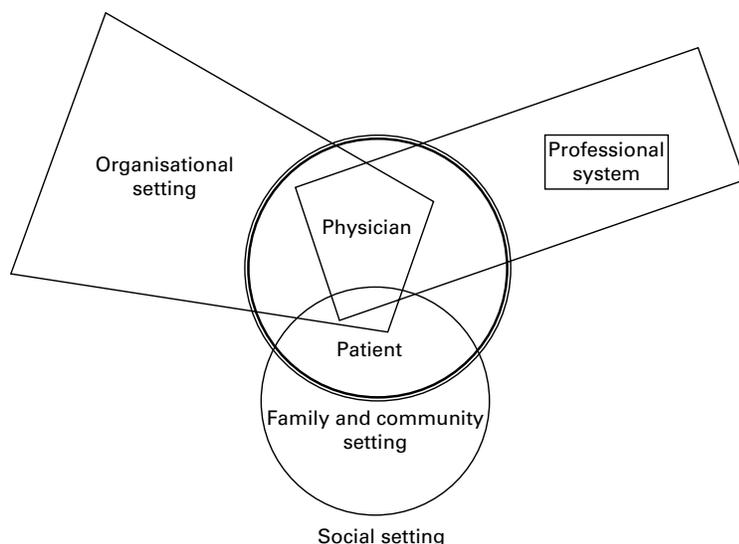
Figure 1   Theoretical model. Summary.

establishment of financial incentives, or reviews and audits have been used by health managers in their attempts to improve the system's performance. These strategies seek to exert a certain pressure on professional medical practice by explicitly or implicitly promoting the adoption and/or modification of specific patterns or guidelines. The thesis underlying such reforms is that changes in the structure of incentives for doctors' work will produce changes in his professional practices, thus assuring cost containment, efficiency, and quality.[15]

These approaches tend to underestimate influences that come from within the professional system itself that often prompt changes in doctors' clinical practices.[16] They ignore the potential impact on GPs of how such elements as scientific articles and reports, peer opinions, professional associations, or training courses determine the ways GPs handle different situations.

To increase the responsiveness of health systems to patients' demands and improve their ability to deal with potential inefficiencies that might be attributable to medical practice variations, it is necessary to obtain a better grasp on how such influences may be affecting professional practice.

The aim of this research is to analyse the factors that influence primary care GPs in a highly regulated and controlled national health system such as in Spain. GPs' opinions were studied to learn what sources of influence they considered to be most or least important and legitimate in the exercise of their professional practice. The relation between these evaluations and several personal and organisational characteristics common to GPs was also studied.

Methods

A cross sectional study was carried out, and a self administered questionnaire was sent by mail and collected by hand.

The study population consisted of GPs and family doctors assigned to Primary Care Teams (PCTs) in two Spanish regions: an urban

setting near the metropolis of Madrid, and a rural setting in Andalusia, where the population is more widely dispersed. After a multistage stratified sampling strategy, a random sample composed of 723 people (322 from Madrid and 401 from Andalusia) was selected. Selection of study subjects took place in two phases. In the first phase, health centres were chosen by the Bryand, Harley and Jessen (1960) selection method of random survey points. This method guaranteed that each health centre in the autonomous region or conglomerate would have the same probability of being chosen, while retaining marginal representativity for each strata variable (autonomous community, rural/urban environment). In the second phase, study subjects were chosen in each health centre according to the total number of interviews assigned to each and after the application of a table of random numbers with subjects organised in alphabetical order according to the first two letters of their surname.

The dependent variables ("sources of influence" in medical practice) were identified through a set of questions that collected doctor's opinions on different strategies, institutions and/or groups that exert some kind of influence on medical practice. General practitioners were asked to express their opinion on the importance that different strategies of influence had in so far as making real changes in their work, and on the legitimacy of those sources to influence medical practice. In the first case (importance), they were given a table with nine strategies or sources of influence and asked to score them on a scale of 1 to 9, where 1 is the most important strategy and 9 the least important one. To obtain their opinion on legitimacy, they were given a table with 16 items that referred to the same number of sources of influence. In this case, the measurement level was established through a 7 point Likert type scale (1=not at all legitimate; 7=very legitimate).

The independent variables considered were a series of individual, sociodemographic and professional indicators such as age, gender, years of professional activity, postgraduate training, employment situation, workload, etc. Other indicators of an organisational nature were also considered, for example, the health service, the number of GPs in the workplace, whether GPs were accredited to provide teaching, etc. (Table 1). In addition, we included four scales validated by the research team to measure occupational satisfaction, the feeling of belonging to an organisation compared with the feeling of belonging to a profession, group cohesion within the team, and the health centre's degree of innovation.

The questionnaire was tested on a sample of 124 GPs from different Spanish regions. The instrument was also tested to ensure the validity of its content (bibliographical review and assessment by experts) and its construction (a multiple correlation analysis and a factorial analysis of its principal components). The reliability of the scales included in the questionnaire was determined by measuring the internal

Table 1 Distribution of independent variables (n=519) ∗

	Mean	SD
Age (years of age reached)	39.3	6.95
Years of professional activity	11.8	6.70
Years practising in the Primary Care Team	4.06	2.79
Workload		
No of patients per day	39.4	14.6
Time spent with every patient (min)	6.95	4.24
No of physicians practising in the health centre	11.2	4.36
Time spent interacting with colleagues (work meeting with the health centre's colleagues); (mean, scale 0 to 10 hours per month)	3.7	2.72
Continuing education in the health centre		
Clinical sessions	3.5	3.07
Bibliographical sessions (mean, scale 0 to 10 hours per month)	3.7	3.17
Gender		
Male	57%	
Female	43%	
Employment situation		
Regular	48%	
Temporary	52%	
Health Service		
SAS (Andalusian Regional Health Authority)	56.5%	
Insalud (Madrid Regional Health Authority)	43.5%	
Postgraduate training		
Residency (MIR)	44%	
No MIR	56%	
Health centre authorised to provide training		
Nursing	45%	
Residency (MIR)	39%	
Social work	16%	
Time spent on open surgeries (workload)		
Less than 3 hours per week	33.3%	
Between 3–4 hours per week	44.5%	
More than 4 hours per week	22.2%	
Time spent on appointment-based clinics (workload)		
Less than 1 hour per week	18.0%	
Between 1–2 hours per week	58.9%	
More than 3 hours per week	23.1%	

*Mean, standard deviation and percentages.

consistency (Cronbach's α coefficient). The process of validating the questionnaire concentrated on determining the validity and reliability of the scales used to measure the independent variables: sense of belonging, job satisfaction, and level of innovation. The three turned out to be unidimensional scales with an internal consistency above 0.70.

Field work was carried out between May and December 1995. In the final analysis, both samples (Madrid=322 and Andalucía=401) were considered jointly because their distribution was homogeneous. Non-parametric tests were used for the statistical analysis of data when the dependent variables studied did not show a normal frequency distribution. The Friedman test was used to answer the question on the importance of the sources of influence to calculate mid-ranges of scores for every item and the comparisons between them. When the global test was significant, the Tukey methodology for comparing pairs was used. The

Mann-Whitney test and the Kruskall-Wallis test were used to analyse the variance of the different groups established by the independent variables. Parametric tests for comparing means (t test and one way analysis of variance) were used on the legitimacy items. Finally, a multiple linear regression analysis was carried out to determine the effect of independent variables on opinion as to the importance and legitimacy of different sources of influence on medical practice. The partial correlation coefficient was used to measure the strengths of the relation between each one of the model's variables and the dependent variable controlled for the remaining variables.

Results

The global response rate was 71.7%, representing a total of 519 family doctors. Some 43.5% (226) of them practice in the Madrid region, and 56.5% in the Andalusian region. No significant differences were found between respondents and non-respondents when independent variables such as age, gender, and each region's health service were considered.

Table 1 is a descriptive sample of the main independent variables used in this study. Some 73.3% of GPs surveyed are below 40 years of age. For the variable years of professional activity, more than half the GPs (54.1%) had been practising for less than 15 years. Moreover, 77.6% of them had been practising in a PCT for less than five years.

EVALUATION OF THE IMPORTANCE OF DIFFERENT SOURCES OF INFLUENCE

The concept of "importance" refers to the effectiveness of different strategies or sources of influence in provoking changes in professional practice. According to the results obtained from this question (see table 2, distribution of mid-ranges), the most important source of influence was attendance at training courses, reading articles and reports (some 60% of the sample ranked this source first in the score of importance). In second place was the establishment of self developed protocols produced by the health centre's professionals. In third place we found discussion with colleagues on how to handle a given health problem, and occupying last place in the ranking was the existence of financial incentives and information provided by pharmaceutical company representatives.

Table 2 Importance of different change strategies to medical practice ∗

Rank each one of the following strategies according to the importance you attach to them, that is, their potential influence in changing your way of handling a given health problem. (1 = the most important one; 9 = the least important one)

	Mid-ranges	Mean	SD
Attendance at training courses, reading articles and reports	1.95	1.95	1.68
Establishment of a self developed protocol written by the health centre's professionals	3.27	3.26	1.64
Discussion with other colleagues on the way of handling patients with a given health problem	3.55	3.55	1.59
Feedback from patients treated for a given problem	4.52	4.51	1.76
Assessment and quality control strategies	4.63	4.62	2.11
Establishment of a protocol coming from higher levels	5.05	5.05	2.00
Patients' demands	6.94	6.93	1.76
Existence of financial incentives	7.44	7.43	1.83
Information provided by pharmaceutical companies' visitors	7.65	7.64	1.59
n=510			p<0.001

*Mid-ranges (Friedman test), mean (SD). Items grouped in every cell do not show statistically significant differences between them, but present them in connection with the other cells.

Table 3 shows partial correlation coefficients and the statistical significance level for each one of the variables of the response variable for "importance."

For female GPs and younger GPs of both genders, attending training courses and reading articles and reports is significantly more important as a factor for change in their professional practices than it is for male GPs and older GPs of both genders.

GPs who serve as health centre directors see the implementation of self developed protocols, or clinical guidelines agreed upon by the health centre's professionals, as more important in influencing medical practice than others who do not occupy managerial positions. GPs who dedicate more time to bibliographical sessions and continuing education also consider these protocols to be more important than do others who dedicate less time to such activities.

GPs who identify themselves more strongly with the feeling of being part of a medical professional system, compared with a health organisation, consider their discussions with colleagues to be a more important factor for change than do companions who identify less strongly with this sentiment.

The implementation of protocols coming from the managerial level is more important to female than to male GPs. For those working in a temporary employment situation, the existence of such protocols exerts a more important influence on their medical practice than on companions working under permanent contracts. For GPs in centres authorised to provide undergraduate and resident training, their implementation is less important than for their counterparts in non-authorised centres.
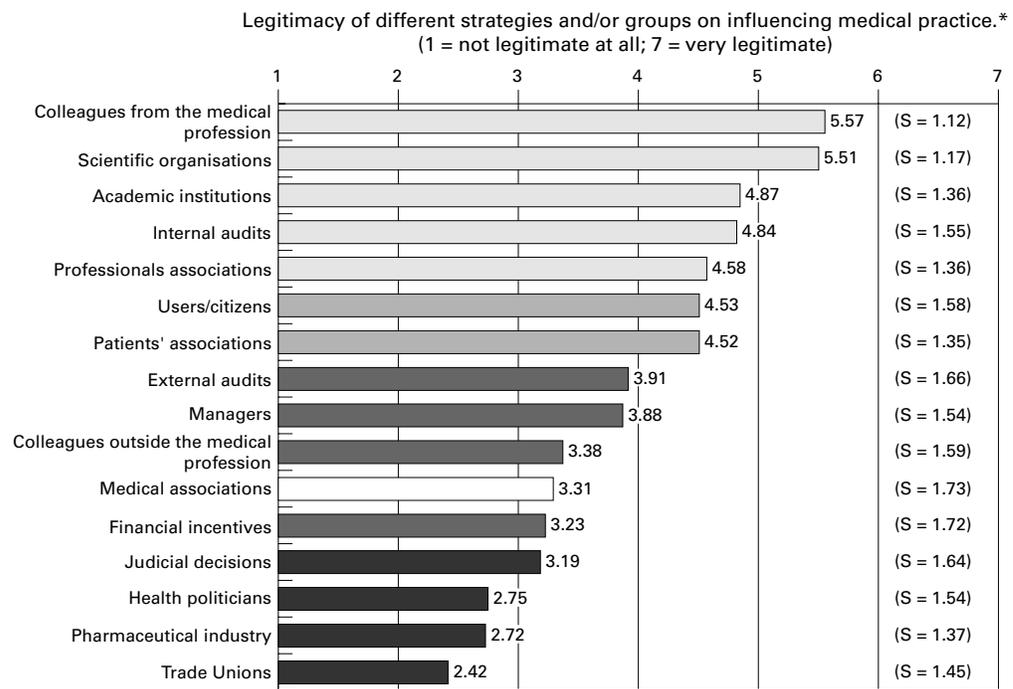
The existence of financial incentives as a change mechanism is more important to men than to women. Furthermore, GPs in an unstable employment situation consider them to be more important than do those working under permanent contracts. We also learned that GPs with a large number of publications

KEY POINTS

- According to the doctors who were surveyed, the most important sources of influence in their professional practice are: attendance at training courses, reading articles and reports, implementation of protocols designed by the professionals of the centre themselves and discussion with colleagues on how to deal with a given health problem.
- Accordingly, the least important ones are: economic incentives and information provided by medical representatives from pharmaceutical companies.
- As to the legitimacy to influence medical practice it seems that the five most influential sources or strategies correspond to elements of the "professional system": other doctors, scientific organisations, academic institutions, internal audits, and professional associations.
- The concept of professional system refers to a set of values, norms and traditions shared and accepted by members of the medical community. Moreover these values are socially accepted to define the "correct" medical practice. From an analytical point of view we can distinguish between a formal subsystem (conferences, scientific literature, professional associations, etc) and an informal one (prestigious leaders, colleagues, etc). Both of them constitute the set of relationships that comprises professional practice.
- Strategies developed from the management levels, such as compulsory implementation of protocols, financial incentives, review and audit strategies, or the part played by health managers, are considered to be less important and legitimate by professionals.

Table 3   Partial correlation's coefficients relating to the importance of different change strategies to medical practice according to independent variables (multiple lineal regression)

Variables	Partial correlation coefficients	p value
Courses, articles and reports		
Age	0.088	0.059
Gender	−0.099	0.026
Discussion with colleagues		
Health Service	0.154	0.001
Feeling of belonging to an organisation *v* feeling of belonging to a profession		
(mean, scale 1 = more belonging profession; 7 = more belonging organisation).	0.091	0.040
Imposed protocols		
Gender	−0.101	0.024
Employment situation	−0.166	0.000
Health centre's authorisation to provide undergraduate training	−0.098	0.029
Health centre's authorisation to provide resident training (MIR)	−0.144	0.001
Financial incentives		
Gender	0.159	0.000
Employment situation	0.109	0.014
No of publications	−0.117	0.009
Team's group cohesion (mean, scale 1 = less group cohesion; 7 = high group cohesion).	0.112	0.012
Self developed protocols		
Director of the health centre	0.104	0.020
Bibliographical sessions (continuing education) (mean, scale 0 to 10 hours per month).	−0.135	0.002
Pharmaceutical visitors		
Age	−0.176	0.000
Time of appointment-based clinic	−0.098	0.030
Feeling of belonging to an organisation *v* feeling of belonging to a profession		
(mean, scale 1 = more belonging profession; 7 = more belonging organisation).	0.152	0.001

Legitimacy of different strategies and/or groups on influencing medical practice.*
(1 = not legitimate at all; 7 = very legitimate)

Colleagues from the medical profession	5.57 (S = 1.12)
Scientific organisations	5.51 (S = 1.17)
Academic institutions	4.87 (S = 1.36)
Internal audits	4.84 (S = 1.55)
Professionals associations	4.58 (S = 1.36)
Users/citizens	4.53 (S = 1.58)
Patients' associations	4.52 (S = 1.35)
External audits	3.91 (S = 1.66)
Managers	3.88 (S = 1.54)
Colleagues outside the medical profession	3.38 (S = 1.59)
Medical associations	3.31 (S = 1.73)
Financial incentives	3.23 (S = 1.72)
Judicial decisions	3.19 (S = 1.64)
Health politicians	2.75 (S = 1.54)
Pharmaceutical industry	2.72 (S = 1.37)
Trade Unions	2.42 (S = 1.45)

n = 519

*Mean and standard deviation distribution.

Figure 2 Legitimacy of different sources of influence on medical practice.

think such incentives are more important than those who publish less. In another comparison, we found that GPs who belonged to teams with a high degree of group cohesion considered incentives to be less important than those working in less cohesive groups.

Older GPs and those who spend more time in appointment-based clinics, consider information provided by pharmaceutical company representatives to have a more important influence on their professional practice than younger GPs and those who spend less time in such clinics. Among GPs whose sense of belonging to a medical professional system was greater than their feeling of being part of a health organisation, this information was deemed to be less important.

EVALUATION OF THE LEGITIMACY OF DIFFERENT SOURCES OF INFLUENCE

Figure 2 shows the opinion on "legitimacy" given by respondents as related to different

Table 4 Partial correlations coeficients relating to the legitimacy of different strategies and/or groups to change medical practice according to independent variables (multiple lineal regression)

Variables	Partial correlation coefficients	p value
Financial incentives		
No of patients per day	−0.132	0.003
Time of appointment-based clinic	−0.093	0.039
Gender	−0.165	0.000
Team's group cohesion (mean, scale 1 = less group cohesion; 7 = high group cohesion).	−0.119	0.008
Politicians of the health field		
Feeling of belonging to an organisation *v* feeling of belonging to a profession (mean, scale 1 = more belonging profession; 7 = more belonging organisation).	0.273	0.000
Employment situation	−0.095	0.035
Health centre's manager	−0.113	0.012
Health managers		
Feeling of belonging to an organisation *v* feeling of belonging to a profession (mean, scale 1 = more belonging profession; 7 = more belonging organisation).	0.367	0.000
Age	−0.097	0.031
Time of appointment-based clinic	0.128	0.004
Pharmaceutical industry		
Residency (MIR)	0.120	0.007
Feeling of belonging to an organisation *v* feeling of belonging to a profession (mean, scale 1 = more belonging profession; 7 = more belonging organisation).	−0.128	0.004
Scientific organisations		
Residency (MIR)	−0.145	0.001
Employment satisfaction (mean, scale 1 = totally unsatisfied; 7 = totally satisfied).	0.127	0.004
Academic institutions		
Health centre's authorisation for resident training (MIR) provision	0.129	0.004
Time of appointment-based clinics	0.085	0.057
Health centre's manager	0.90	0.044
Professional associations		
Residency (MIR)	−0.140	0.002
Health service	0.101	0.024

Table 5   Variables with significant differences after applying the linear regression models in relation to the importance and legitimacy of the different sources of influence

	Courses, articles, reports	Discussion with colleagues	Imposed protocols	Financial incentives	Self developed protocols	Visits from representatives of the pharmaceutical industry	Health politicians	Managers	Scientific organisations	Academic institutions
Age						I		L		
Gender			I	I/L						
Employment situation			I	I			L			
Health centre's manager					I		L			L
Residency (MIR)						L			L	
No of publications			I							
Authorisation for resident training (MIR)						I/L				
Professional system *v* organisational setting					I					
Bibliographical sessions					I					
Time of appointment-based clinics								L		
No of patients/day				L						
Employment satisfaction									L	

I: Importance; L: Legitimacy. Tinted cells indicate the existence of statistical significance between the different variables (significant level: 0.05).

strategies, groups and/or institutions exerting some influence on medical practice. The graph shows the mean scores (and standard deviation) obtained for every item. The first five sources of influence considered to be more legitimate correspond to elements of the "professional system."

Table 4 shows partial correlation coefficients and the degree of statistical significance for the "legitimacy" variable. Scientific organisations are considered by GPs with postgraduate training and those with a greater level of employment satisfaction to have more legitimacy to influence medical practice. Professional associations are considered more legitimate by doctors with postgraduate training and by those practising in the Madrid region. Academic institutions are perceived as less legitimate by GPs in centres authorised to provide resident training. However, they are viewed as being more legitimate by health centres' directors and those spending more time in appointment-based clinics. Politicians are viewed as being more legitimate by health centres' directors as well as by GPs who feel that they belong to a health organisation. GPs in an unstable employment situation consider them to be less legitimate in so far as influence on their work is concerned.

Health services' managers are considered to be more legitimate by GPs who spend more time in appointment-based clinics and by those who feel that they belong more to the health organisation than to the medical profession. Older GPs consider them to be less legitimate to influence their professional practice. Financial incentives are less legitimate for GPs attending a greater number of patients per day, for those spending a greater number of hours in appointment-based clinics, for female GPs, and for GPs practising in teams with a greater degree of innovation. The pharmaceutical industry is considered to be less legitimate by some doctors who have completed their residency training and by some GPs who feel that they belong more to the organisation than to the profession.

Table 5 summarises the way different independent variables show statistically significant differences for every one of the sources of influence on medical practice.

Discussion

The response rate (71.7%) is considered to be acceptable, especially as this type of study usually has a lower one. We believe this high degree of participation is determined, to a great extent, by the fact that questionnaires were collected by hand. Furthermore, the study of social and demographic characteristics of non-respondents (age, gender, and health service) showed no significant differences in relation to respondents. Thus, it can be assumed that the non-response bias does not significantly affect this study's conclusions.

When the two samples of GPs from the study's different regions were analysed in relation to the variables presented in this study, both showed similar characteristics.

It should be noted that our results have some limitations as we collected GPs' opinions, rather than straightforwardly "observing" or "measuring" concrete behaviours or practices. The advantage of this approach is that it enabled us to consider a large number of aspects related to professional practice that otherwise could not have been evaluated. However, such an approach is also subject to the usual limitations that affect studies based on the opinions of an individual as it tends to reflect widely held social values rather than the participants' own real opinions. The social sciences define this as the social desirability bias. Consequently, these results express different legitimised systems of values[17–19] that predominate among primary care GPs in Spain.

GPs included in the survey carry out their tasks within a multidisciplinary teamwork scheme. This model of care, based on the health centre concept, currently covers 60% of Spain's population. These teams are called PCTs, and include family doctors, paediatricians, nursing staff, and other professionals. This model adopts preventive functions at both the personal and community health level. Family doctors have a list of 2000–3000 people assigned to them. Patients are free to choose their doctor. Professionals work full time (40 hours a week) on a salary basis with small financial incentives (10% to 25% of their gross salary) depending on capitation, whether they work in rural areas, and so on. In addition to daily surgery time for all patients, they usually provide specific appointment-based clinics

where more time is reserved to attend previously identified complex patients. GPs working under the "old model," and who only provide curative care on a part time basis, have not been studied.[20]

Despite the limitations mentioned above, we consider the results of this research to be similar to those of other studies and theoretical approaches to the medical profession.[14 18 21 22] We observe that the main sources of change that influence the way doctors practise their profession, both in terms of importance and legitimacy, come from the professional system setting (training courses, scientific articles and reports, colleagues, professional associations, etc). The research also shows that strategies developed at the managerial level, such as compulsory implementation of protocols, financial incentives, reviews and audits, or the part played by health managers, are considered to be less important and less legitimate by professionals.

The main differences found according to GPs' gender are consistent with the results of other studies on the issue.[23–25] Female GPs accept the existence of protocols coming from the managerial level more easily than their male counterparts. This suggests they have a more integrated concept of professional practice, one which enables them to accept input from other staff members and professionals within the health system, not just from doctors.

Moreover, the greater legitimacy assigned by women GPs to internal audits leads us to believe that it would be easier to implement quality improvement strategies in predominantly female teams. In contrast, male GPs rank the existence of financial incentives higher on the score of importance than female GPs. Age also shows differences as to the importance and legitimacy assigned to the "organisational setting." Younger GPs consider external audits or health managers to be more legitimate than do older doctors, which might suggest a distinct conception of professional practice that enables them to "allow" other professionals to "control" or collaborate with them in their work.

It is interesting to note that in relation to gender and employment, female GPs and GPs in an unstable employment situation evaluate an important management instrument, top-down implementation of protocols, more highly than other alternatives. This may be because of two important factors that determine the development of medical practice in Spain: (a) the increase in the number of women entering the labour (and health) market, and (b) that approximately 50% of all GPs are in an unstable employment situation. Furthermore, both groups (women and GPs under temporary contracts) together with those who have a greater workload (greater number of patients and more hours in appointment-based clinics) more negatively evaluate another key instrument in today's management culture, financial incentives.[26 27] This may have to do with the doctors' perception that economic incentives in Spanish primary care are small.[28]

These reflections could prove useful for implementing change within the health services. Reforms are almost exclusively focused on managerial actions, whereas the content of medical professional practice is defined and regulated through the GPs' "professional system" (as is the case in other professions that occupy powerful positions within the system). In so far as GPs are concerned, the design and/or implementation of any type of strategy aimed at modifying decision making must first take this reality into account.

Efficiency and quality levels in the health services will increasingly be influenced by management's capacity to facilitate the implementation of specific approaches to change or to get actions adopted or modified within that set of professional practices that constitute medical behaviour.[29]

In the future, health management will have to introduce new elements designed to ensure both the global quality of the process and its efficiency in terms of cost of care.[10] The concept of quality is thus being redefined via a limited interpretation (precise and correct treatment of organic diseases) and will include aspects such as patients' personal care, the provision of adequate information, politeness and emphasis on tangible aspects within the health care framework. Clearly, the current concept of quality incorporates users' satisfaction as an essential element.

Social and cultural changes will oblige management staff to deal with other elements of the physician-patient relationship, particularly those not directly rooted in purely clinical aspects of care. Such elements, in addition to being more subtle and sensitive, are also more difficult to measure and evaluate. In such a context, hardline business management techniques could have an undesirable effect on the physician-patient relationship. Managers will have to adopt workplace strategies that bolster the motivation of health care professionals. They will also have to appropriately coordinate elements such as: other professional groups (through elements of internal marketing)[30]; users' global satisfaction (external marketing)[31]; effective management of available resources (econometric techniques); increased activities in prevention and public health (with special emphasis on newly emerging health problems)[32]; etc. This panorama presents a very complex social and health setting, one in which it will be increasingly necessary to introduce new studies that contribute to providing more efficient guidance on the part to be played by the health services.

The theoretical approach proposed here needs to be complemented with other more specific or global ones that incorporate studies on human behaviour such as: the theory of reasoned action[33] and the theory of social learning,[34] the dynamics of organisational change,[35] and other similar sociological approaches that consider the configuration of different "social practices" as socially constructed models of behaviour.[21]

The opinions expressed by GPs, which were an important contribution to this paper, should

help us to reflect on the suitability or relevance, or both, of different managerial strategies that have been implemented in the health system. These results could lead us to raise key questions such as whether health services management should be more oriented toward individual behavioural aspects,[36] for example, financial incentives, or whether it should have a more global focus, for example, by promoting change in and from that set of norms and values that regulates the medical profession and is known as the "professional system." These conclusions should especially be taken into account when planning changes in professional practice.

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