

Health Services

The interdisciplinary model of hospital administration: do health professionals and managers look at it in the same way?

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Background: To assess health practitioners' views on the issue of hospital administration and explore possible conflicts. **Methods:** Questionnaire-based, multi-stage cluster sampling technique was used as the design, in which 124 doctors, 154 certified nurses and 15 hospital managers participated. **Results:** Only 39% of doctors and 51% of nurses were aware of the manager's basic degree and 70% of them considered it inadequate. Health sciences were chosen as the best basic degree for effective management by 65% of health practitioners. Moreover, 74% of doctors and 96% of nurses believed that an interdisciplinary board of directors, with the manager acting as a chairman could be the ideal administrative model. Even though this model was the current system in the interviewed hospitals, most health practitioners (87%) considered it ineffective. With regard to the acceptance of the manager as authority in the hospital, 76% of the doctors believed that there were related problems (47% considered the manager as an outsider to the health sector), whereas only 45% of the managers admitted such problems. Trainees showed a less tolerant attitude towards managerial administration in comparison to specialists. **Conclusion:** Most health professionals believe that hospital administration is ineffective. The interdisciplinary model, with a manager having both health sciences and economics degrees and exercising his/her role with flexibility and taking the widest consent of health professionals may improve the very low rates of acceptance and perceived efficacy. Trainees and nurses seem to often have different views, suggesting the importance of their participation in the administrative model.

Keywords: conflicts, doctors, hospital administration, managers, nurses.

The hospital either as an asclepeion, or as a monastery, or even as a modern university institution has always been the place in which every socioeconomic group sought healthcare. The form of hospital services, their organization, development, operation and administration have undergone significant differentiations over time; however, especially during the last 20 years, the dissatisfaction with the traditional role of hospitals has grown vastly. This may very well be attributed to the implementation of issues such as quality of life and cost-effectiveness, wide media coverage of system inadequacies, increased demands, and awareness of patients' rights.

Above all, limited resources in the era of expensive high-tech medicine have resulted in a new perspective in hospital planning and administration. Gradually, hospital administration has become a struggle to balance these scarce resources with increased demands in all medical fields, thus urging for a more responsible behaviour from all hospital working members.

Former models of hospital administration, applied for long periods of time in Greek public hospitals, were based on government appointed directors with a level of experience as public servants (frequently irrelevant to public health service including former military officers or failed politicians), surrounded by a board with members not necessarily working in the hospital. These models proved ineffective, as they lacked technocratically oriented practice or any long-term planning. Moreover, their acceptance among health professionals was

very limited, as they rarely included healthcare professionals; hence, they did not promote mutual understanding or multidisciplinary cooperation.

The implementation of a technocratically oriented managerial system with an interdisciplinary approach aimed to solve the related problems and promote cost-effectiveness.

The aim of the present study is to assess doctors', nurses', and managers' views on the interdisciplinary system of hospital administration, three years after its implementation, and to explore possible conflicts between managerial administration and healthcare personnel.

Materials and methods

The study was conducted between 15 September and 23 December 2004, in 7 major hospitals of the 1st, 2nd and 3rd Regional Authorities of Athens, using the multi-stage cluster sampling technique. The selection of hospitals was based on cluster sampling from all hospitals belonging to the Prefecture of Attica and the questionnaires were distributed to healthcare personnel with random sampling. Therefore, the views of health professionals in the present study should be considered as representative, whereas managers' views, which are also presented, should be interpreted with caution. The latter can be mainly attributed to two important reasons: (i) the presence of just one manager in every hospital included in the study; their potential participation in the clusters could have jeopardized the integrity of the sampling technique, (ii) the relatively low response rate on behalf of managers (as also discussed subsequently).

In the presence of the authors, 124 doctors and 154 certified nurses filled the appropriate questionnaires with a response rate of 100%. With regard to doctors, 86 were trainees and 38 specialists. Of the respondent doctors, 104 were men and

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20 women. Among nurses, there were four men and 150 women. Fourteen nurses had university degrees and 140 had technological education.

Faxes were also sent by the authors to 100 hospital managers nationwide (including the hospitals mentioned earlier), with a response rate of 15%. Before each fax was sent, the authors contacted the manager's office secretary, giving a detailed report of the study. In addition, a specific permit of the University of Athens, which had placed the study under its aegis, was attached to the questionnaire. Among managers, there were 14 men and 1 woman. With regard to their geographical distribution, six of them were working in hospitals belonging to the Prefecture of Attica, and nine in hospitals in the rest of the country (which basically corresponds to the geographical distribution of the Greek population).

Every questionnaire was anonymous (with regard to data-analysis) and consisted of 11 questions.

The first four described personal characteristics: (i) age/year of graduation; (ii) gender; (iii) basic degree/post-graduate studies and (iv) speciality.

The following four questions assessed their beliefs on effective hospital management: (i) basic degree of the manager of each hospital; (ii) Whether it is adequate or not; (iii) The best basic degree for effective management [the options were: (a) Health Sciences, (b) Economic Sciences and (c) Other], (iv) The best combination of basic degree/post-graduate studies for effective management [the options were: (a) Health Sciences/Healthcare Economics, (b) Economic Sciences/Healthcare Economics and (c) Other basic degree/Healthcare Economics].

Finally, the last three questions evaluated the potential presence of interdisciplinary conflicts: (i) Which hospital administrative model do you find better? [the options were: (a) Manager alone, (b) Chairman with consultants and (c) Interdisciplinary board of directors with the manager acting as a chairman], (ii) Is the existing management in the hospital effective? and (iii) Where do you attribute potential conflicts between doctors and managers? [the options were: (a) Doctors consider their studies far more successful than the manager's, (b) The manager is considered by the doctors as an outsider to the health system, (c) Doctors consider their role in the hospital far more important, (d) Other and (e) I don't think that there are acceptance difficulties by the doctors towards the manager as authority].

The participants filled the questionnaires provided, without any intervention by the authors (i.e. instructions, specifications, etc.).

Available data were processed by using SPSS 10.0. Student's *t*-test was performed to compare the answers given by the groups under analysis (i.e. doctors vs nurses, specialists vs trainees, etc.); statistical importance was accepted at a level of 0.05 and lower.¹

Results

Doctors

Among the doctors working in the hospitals, 61% ignored the basic degree of the manager, whereas 71% of those who knew the degree considered it inadequate for efficient hospital management. With regard to the best basic degree for effective management as viewed by the interviewed doctors, there was a significant trend towards health sciences as 64% chose Health Sciences, 27% Economic Sciences and 9% various other sciences. The results were similar concerning the best combination of basic degree/post-graduate studies for effective management, as 65% chose Health Science/Healthcare Economics, 33% Economic Science/Healthcare Economics, and 2% other basic degree/Healthcare Economics.

In addition, 74% of doctors believed that an interdisciplinary board of directors, with the manager acting as a chairman could be the ideal administrative model, whereas 21% believed that better administration is achieved with a model of a chairman with consultants, and only 5% believed that a manager alone would be sufficient. Even though the interdisciplinary model is the current administrative system in the interviewed hospitals, the vast majority of doctors (87%) believed that this is not effective.

We should point out that the best administrative model, as viewed by the responders, depended on the specific post of the hospital doctor (specialists or trainees) and this difference was statistically significant ($P=0.02$). In detail, 63% specialists chose the interdisciplinary model, 26% the manager-consultants model, and 11% the manager alone model, whereas the respective percentages in trainees were 78, 20 and 2%. On the other hand, the type of doctor's post did not affect the view of current effectiveness of hospital administration (83% specialists and 91% of trainees believed that the system was ineffective).

With regard to the acceptance of the manager as authority in the hospital, 76% of the doctors believed that there were related problems, whereas 24% of them did not. Again, this relied on the type of the doctor's post, as 76% of trainees claimed such problems, whereas the respective percentage in specialists was 58%, and the difference was statistically significant ($P=0.04$). The most important cause of acceptance problems was that 47% of doctors considered the manager as an outsider to the health sector. In addition, 15% of doctors considered their role in the hospital far more important than the manager's and a few (5%) even considered their own studies far more successful than the manager's. With regard to the influence of the doctor's specific post on these views, 62% of the trainees considered that the manager being an outsider to the health system, was the most important cause of acceptance problems, whereas specialists' respective percentage was <41% and this difference was statistically significant ($P=0.002$, table 1).

Certified nurses

Even though nurses were better informed than doctors on the manager's basic degree as 51% of them were aware of it, 74% of those who knew it, considered it inadequate for efficient hospital management.

Among nurses, as among doctors, there was a marked preference towards health sciences as the best basic degree for effective management. From the interviewed nurses, 67% chose health sciences, 22% economic sciences and 11% various other sciences. The same trend also applied for the best combination of basic degree/post-graduate studies for effective management as 72% chose Health Science/Healthcare Economics, 26% Economic Science/Healthcare Economics, and only 2% other basic degree/Healthcare Economics.

Table 1 Effect of the specific medical post on the physicians' perspective

	Medical post		
	Specialists (%)	Trainees (%)	
Interdisciplinary administrative model	63	78	$P=0.02$
Ineffective hospital administration	83	91	NS
Acceptance difficulties	58	76	$P=0.04$
The manager is an outsider to the health sector	41.5	62	$P=0.002$

Regarding the interdisciplinary model as the ideal for hospital administration, 96% of nurses supported it, whereas 4% chose the manager-consultant model and none the manager alone model. However, 87% of nurses believed that the current interdisciplinary model is ineffective.

With regard to the acceptance of the manager as authority by the hospital doctors, only 11% believed that such problems do not exist. Most of them (89%) believed that these problems originated from doctors, 39% that the most important cause of problems was that the manager was considered by the doctors as an outsider to the health system, 24% that doctors considered their role in the hospital far more important, 19% that doctors considered their studies far more successful than the manager's and 7% of nurses gave various other reasons. A comparison of the answers given by doctors and nurses in common questions is summarized in table 2.

Managers

With regard to the best basic degree for effective management, 46% of them chose Economic Sciences, 36% Health Sciences and 18% various other sciences. With regard to the best combination of basic degree/post-graduate studies for effective management, however, 55% of managers chose Health science/Healthcare Economics, 36% Economic Science/Healthcare Economics and 9% other basic degree/Healthcare Economics.

From the managers, 67% considered the interdisciplinary model ideal for hospital administration, whereas 33% chose the manager-consultant model and 0% the manager alone model.

With regard to the acceptance difficulties of the manager institution, 55% of them believed that there were none, whereas 19% believed that doctors considered their role in the hospital far more important, 13% believed that it was difficult for doctors to consider themselves as subordinates, 13% chose various other reasons and—not surprisingly—0% identified themselves as outsiders to the health sector. By contrast, managers believed that there were no conflicts between them and the nursing personnel and only one female manager reported acceptance difficulties towards her on behalf of the nurses.

Discussion

Hospital administration in the era of cost-effectiveness has become an issue of utmost importance. The increasing pressure for healthcare resources in many countries has led to a re-assessment of the way resources are allocated and committed.² In effect, the drive for increased efficiency has reflected a well-established shift in public sector management, which was, in large part, driven by the public's desire for lower taxes or at least better use of public money in health matters.³ Therefore, efforts to introduce the discipline of the market into healthcare were attempted⁴ and various models and combinations of hospital administration have been used with ambiguous results.

Although the success of healthcare organizations in efficiently treating patients is theoretically pursued by all parties involved in hospital function, differences on philosophy between doctors and managers⁵ may jeopardize their mutual

goal. Interdisciplinary conflicts became very obvious with the implementation of the managerial model in the Beveridge-type healthcare systems.⁶ This action was perceived as an attempt to counterbalance the expert power of the medical profession, by giving managers structural power within healthcare organizations.⁶ Gradually, a doctor-manager division has taken place and an unhealthy 'them and us' culture has appeared in the UK since the 1980s;^{4,7-9} this tension was further enhanced by the split between purchaser and provider in the 1990s,¹⁰ when the services expected of a professional autonomous group became subject to specification and, as a consequence, to control, through a contractual relationship.⁶

The selection of managers with financial or political criteria^{11,12} in order to carry out a specific agenda,^{10,13} and their usual replacement due to similar reasons has led health professionals to a defensive attitude towards the whole idea of the managerial system¹⁴ and the principles of cost-effectiveness. It is rather alarming that both doctors and nurses reported the management of their hospital as ineffective in the very high percentage of 87%, although the current system is an inter-disciplinary one with the manager acting as a chairman. Moreover, their negative attitude towards managers is illustrated by the fact that half or even more of health professionals do not know the degree of their manager and have never bothered to learn it. In addition, >70% of those who knew the degree of their manager, considered it as inadequate for effective management and they would have preferred another type of degree (usually a health professional one).¹⁵ It was interesting to note that some of the interviewed individuals proposed the implementation of a 'Healthcare Administration School' in a University Department, as displayed in the reply 'other', in the best basic degree for the effective management question. The latter seems to be an international request and this could be realized with the combination of MD/MBA training programmes,^{7,16} or by formal post-graduate training in healthcare administration.⁷ However, one should work on both ends of the puzzle, and try to introduce concepts and opportunities into the undergraduate curriculum,¹⁷ whilst acknowledging that they will need reinforcement, through positive examples of role models.¹⁸ With regard to medical students, although many papers stress the importance of early exposure to management practices,^{19,20} it should be noted that strategic skills are expected to develop at a later stage.⁶ Therefore, regional authorities could also assist with the delivering of management experience and skills to post-graduate trainees.²¹ To meet with current demands, at least partially, the British Association of Medical Managers (BAMM) offers support and a range of resources for clinicians in management. It has also developed, in this context, a leadership programme at an MSc level, based on specially commissioned, robust NHS studies.²² The familiarization of health professionals to management concepts and vice versa could contribute to better understanding of the difficult hospital problems and also modify behaviours and methods of management. This could be further enhanced by the development of a core management training strategy,²³ or even a community of practice,²⁴ in which a body of variously skilled individuals with some sense of 'centre' could

Table 2 Acceptance problems of the hospital manager by the doctors, as perceived by nurses and doctors

	Category of health professional		P
	Doctors (%)	Nurses (%)	
There are acceptance difficulties from doctors	64	84	P=0.001
Doctors consider their university/post-graduate studies far more successful	6.5	30	P<0.001
Doctors consider their role in the hospital far more important	17	37	P<0.001
Doctors consider the manager as an outsider to the health sector	55	60	NS

be established, as a result of an apprenticeship model, with which doctors, for example, are already familiar.¹⁸

As far as resources and the role of manager as a financial book keeper are concerned, difficulties may emerge from the fact that doctors tend not to accept a manager's accounting philosophy,^{13,16,25,26} as this may suggest critical evaluation of their practice. Furthermore, managers are seen to have an overriding concern for costs and the efficiency of services, whereas doctors regard themselves as guardians of clinical and professional standards.²⁷ However, by taking only their personal accountability into account, doctors often overlook the issue of organizational or healthcare system accountability.²⁸

With regard to increasing the efficiency of provided services, it should be noted that even the best trained managers may not achieve sustainable improvements in their hospital if they apply any management theory or practices without flexibility^{29–31} and taking the widest consent of health professionals.^{10,32} According to Brockschmidt the adoption of a corporate culture on behalf of healthcare providers could play a role in solving the emerging conflicts of philosophy.^{33,34} However, a cultural change may be required, if clinicians are to be involved in such processes. This change includes recognizing and accepting that doctors are part of a managed healthcare community and that management is a valued and important process.⁶ Progressive discipline techniques,³⁵ which have been proposed as an efficient measure of accomplishing hospital objectives, may not actually prove effective, as disciplinary procedures are generally not familiar to the majority of doctors,³⁶ which, moreover, seem uneasy with being led.³⁷ Mutual trust between doctors and managers seems to be a more determining factor of their power, with regard to hospital decisions.³⁸ That trust is also considered as the keystone to more effective patient care.^{38–42} The notion of professional permeability and a spread of ideas by 'osmosis' between the groups^{37,43} could help towards that direction, as well as a mutual agreement on objectives.⁴⁴ The latter should undoubtedly include quality improvement of the services which are provided, considering, of course, the finite pool of resources.¹⁸ However, quality in healthcare does not necessarily mean a uniform homogeneity, or an absence of debate, as homogeneity is not present, even within each group.²⁷ It suggests, however, that some sort of clinical governance should be incorporated in the various levels of a healthcare organization.⁴⁵ This function should move beyond the well-established concepts of risk management, clinical audit, or staff development, which tend to treat clinical work as an undifferentiated aggregate, towards the notion of responsible autonomy, which may be regarded as a balance between professional autonomy and accountability.⁴⁵

Such trends, along with the necessity of taking the different professional perspectives into account, with regard to decision making,²⁸ have promoted the implementation of interdisciplinary models in hospital management. These models can provide integrated pathways for achieving the desired outcomes in different medical conditions, considering, at the same time, the available evidence, resource constraints and experience of patients.⁴ They can also provide an innovative option for managers and doctors to collaborate on decision-making, with mutually accepted terms. These terms require, on behalf of doctors, a more sophisticated understanding of management in its broadest sense²² and acceptance not only of the resource dimensions of clinical decisions, but also of power-sharing implications for team-based approaches to clinical work.⁴ They also require, on the other hand, that managers acknowledge that hospitals, by their very nature, are non-linear systems, with few, if any, simple cause and effect relationships, within their complex activities,⁴⁶ and are inevitably affected by the level of uncertainty, which is inherent to the diagnosis and

treatment of illness.⁴⁷ Furthermore, the well-embedded notion of medical audit—a cycle of action, reflection, change and review—is equally applicable to management and more managers need to become 'reflective practitioners'.²⁸

However, even these systems have inherent inadequacies, as principles may differ widely in theory and everyday practice.⁴⁸ This is highlighted in the present article by the fact that although 74% of the doctors and 96% of the nurses admit that this is the model of choice, 87% of both professions find the system ineffective. Multicentre studies both in the UK and USA demonstrated that doctors, especially those in the intermediate level, express their scepticism about the hospital manager's capabilities, especially in handling his/her power.⁴⁹ This guarded attitude, which is further enhanced by the belief that the resources provided are insufficient for effective hospital function,¹³ and the concern that managerial activities are time-consuming,^{4,6} may undermine the operational effectiveness of hospitals.

An important finding of our study was that, although most of the participating managers did not have a health sciences basic degree, 55% believed that the best basic degree is the one in health sciences in combination with a post-graduate training in health economics. It was interesting to note that, although 76% of doctors reported having problems to accept the manager, only 45% of the latter believed that such problems existed. This more optimistic or unrealistic view of the managers is supported by the fact that managers express more positive opinions for the contribution of health professionals to the hospital function, and a relative certainty that the existing interdisciplinary relations are likely to improve.⁴⁰ It coincides also with a theoretical background more comfortable with conflict and negotiation, which recognizes that the objective pursued in the latter, is mutual winning, instead of a 'win-lose' situation.³⁷

While doctors and nurses had similar views on some issues, there were marked differences in others. Although a rather identical percentage (55 and 60%) reported that doctors consider the manager as an outsider to the health sector, their answers significantly differed regarding three issues; (i) 30% of nurses as opposed to 6% of doctors believed that doctors consider their university and post-graduate studies far more successful than the manager's ($P < 0.001$), (ii) 37% of nurses compared with 17% of doctors believed that doctors consider their role in the hospital far more important than that of the manager's ($P < 0.001$), and (iii) 84% of nurses as opposed to 64% of doctors believed that there are acceptance difficulties on the doctor's part ($P = 0.001$). This could be attributed to either the more neutral opinion of nurses or the underlying competition and related complexes between nurses and doctors.

The far less tolerant attitude of the trainees compared with the specialists towards the managerial system was impressive. It is reasonable to expect that trainees, as temporarily working in the hospital, would be indifferent to the hospital administration. In reality, the results of the present study suggest the opposite. Due to their younger age, they may be more critical in their answers, more concerned about the future of the health sector and maybe stressed and frustrated by their first involvement with hospital matters, no longer as medical students, but as health professionals.^{50,51} Furthermore, a change in the 'psychological contract' which they signed when they entered medical school has occurred without their agreement; the job has become much more complex, accountability has increased and deference and autonomy are disappearing.^{10,50,52–54} Their work seems to be controlled not by processes that incorporate highly appreciated notions, such as commitment and socialization, but mainly by 'top-down' bureaucratic mechanisms, external to individual clinical

settings.^{4,27} Their dissatisfaction is perhaps being taken out on managers, since they may account as the visible manifestation of the problem.¹⁶ On the other hand, specialists, having served the health sector for a longer period of time, might have seen a certain improvement in hospital administration over the years or become indifferent themselves as years pass by.

Conclusion

The vast majority of health professionals believe that hospital administration is ineffective, although they admit that the current managerial interdisciplinary system is the best option. They also believe that the manager should have a health sciences degree and if possible combined with post-graduate studies in healthcare economics. On the contrary, the majority of managers (taking into account their low response rate in the present study) consider economics as the best basic degree, but they agree on the combination of health and economic sciences. In order to improve the situation, we could suggest that the interdisciplinary model of administration with a manager having both degrees and exercising his/her role with flexibility and taking the widest consent of health professionals could improve the very low rates of acceptance and perceived efficacy. Trainees and nurses seem to have different perceptions and problems in various issues suggesting the importance of their participation in the administrative model.

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Key points

- The present article attempts, and in large part succeeds, to quantify a qualitative characteristic, as the defensive and hostile, up to a point, attitude of health practitioners towards managers and the whole idea of the managerial system.
- By using nurses as observers (or 'innocent bystanders') of the conflicts between managers and doctors, we tried to neutralize the subjectivity of the latter regarding these conflicts, and to gain an insight in beliefs that doctors were reluctant to reveal.
- Views among doctors are not uniform. Trainees appear to be far less tolerant than specialists.
- Although most of the participating managers did not have a Health Sciences basic degree, the majority believed that the best basic degree for effective hospital management is the one in health sciences, in combination with a post-graduate training in health economics (taking also into account the views of health professionals, the implication of formal post-graduate training of the latter in healthcare administration becomes more than obvious).

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