Performance Management in Health Centres: Evidence from a field study

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Abstract

There has been a growing interest in research on performance measurement and management practices, which seems to reflect researchers' response to calls for the need to increase the relevance of management accounting research. However, despite the development of the new public management literature, studies involving public sector organizations are relatively small compared to those involving business organizations and extremely limited when it comes to public primary health care organizations. Yet, the economic significance of public health care organizations in the economy of developed countries and the criticisms these organizations regularly face from the public suggests there is a need for research. This is particularly true in the case of research that may lead to improvement in performance measurement and management practices and ultimately to improvements in the way health care organizations use their limited resources in the provision of services to the communities.

This study reports on a field study involving three public primary health care organisations. The evidence obtained from interviews and archival data suggests a performance management practices in these institutions lacked consistency and coherence, potentially leading to decreased performance. Hierarchical controls seemed to be very weak and accountability limited, leading to a lack of direction, low motivation and, in some circumstances to insufficient managerial abilities and skills. Also, the performance management systems revealed a number of weaknesses, which suggests that there are various opportunities for improvement in performance in the studied organisations.

1. Introduction

Many researchers have argued that management accounting has lost its relevance (e.g. Johnson & Kaplan, 1987; Otley, 2001). Otley, for instance, maintains that "much management accounting research has lost its way" (2001, p. 243). He argues that management accounting is characterised by an excessive focus on accounting and little focus on management and that to recoup its relevance it needs to expand boundaries and increase focus on the issues surrounding the design and operation of systems used for performance management. This suggests the need for research that aims at exploring how performance is controlled and managed.

Public sector organizations have received relatively smaller attention from researchers than business organisations. This is particularly clear in the health sector, where private health care organizations are typically the focus of existing studies. But even public health sector organizations have been considered (e.g. Abernethy & Stoelwinder, 1991; Chen, Radford, Wang, Marciniak & Krumholz, 1999; Eldenburg, Hermalin, Weisbach & Wosinska, 2004; Freer & Jackson, 1998; Hill, 2000; Jacobs, Marcon & Witt, 2004; Jones & Dewing, 1997; Llewellyn & Northcott, 2005; Mannion, Davies & Marshall, 2005; Meyer & Collier, 2001; Pettersen, 2004; Scott, Mckinnon & Harrison, 2003; Stewart, 2003; Watkins, 2000), only a very few have investigated primary health care organizations (e.g. Gené-Badia, Jodar-Solà, Peguero-Rodrìguez, Contel-Segura & Moliner-Molins, 2001; Jackson & Bircher, 2002; e.g. Leese, Storey, Ford & Cheater, 2005; McAlearney, 2002). Consequently, there seems to exist a clear scope for a study that aims at exploring performance measurement and management practices in primary health care organizations.

This study is designed primarily to characterize management control systems (MCS) of Portuguese Health Centres and examine how these systems are used by the studied organizations. These Health Centres are dependant financially and administratively from other organisations and this makes their study more intricate and complex. This has led us to examine the MCS by using Otley's (1999) and Merchant's (1998) frameworks so to obtain a more comprehensive insight into the evidence. In developing the study, the following research questions were developed and researched:

- What are the existing performance measurement and management control systems in the Health Centres?
- Are the systems used by Health Centres consistent with the theory and what opportunities for improvement exist?
- Are the performance measurement and management control systems consistent with the expectations of the main stakeholders (patients, employees, government)?

In light of the nature of the research questions, the study has adopted a field study methodology. Many prominent researchers have made calls for the use of this research method (e.g. Kaplan, 1984; Otley, 2003; e.g. Scapens, 1990), which has become now widely accepted among researchers. Case studies provide empirical richness that can be

translated into theoretical developments (Hopper, Otley & Scapens, 2001; Otley & Berry, 1998) and make important contributions in academic research (Lee & Humphrey, 2006). Lee and Humphrey (2006) provide an example of the application of the case study method in the public sector accounting area, by examining the role and impact of accounting in public institutions.

It is believed that this study contributes to the literature in the following ways. First, it adds to the limited number of studies that draw on Otley (1999) and Merchant (1998) frameworks. Although Otley's framework has been widely cited, it has not been used to its fullest by researchers, perhaps with a small number of exceptions (e.g. Ferreira & Otley, 2005; e.g. Stringer, 2004). Second, with the exception of the study by Alves (1994) which investigated performance evaluation processes in Portuguese hospitals, very little research in the area of MCS has been conducted in the country. However, the public health care sector is frequently criticised publicly for its poor performance and poor performance management practices (budget overruns have been the norm over the years). This suggests that there is scope for improvement in the sector. Finally, it adds to the limited body of research using case study methodology. Stringer (2004) points out that lack of field studies in performance management can be the result of complexity of the issue, pressure for publications, access issues, and lack of resources. However, Stringer notes that this methodology is essential to further our understanding of relationships, connections, and links between different aspects of MCS.

The paper is organized as follows. Section two provides a brief literature review, which includes the contributions from the new public management literature and of the two frameworks used in this study (i.e., Otley, 1999; Merchant, 1998). Section three describes the research method used in this study, leading to the empirical study description and discussion in the section four. Section five provides the concluding remarks of the study.

2. Brief Literature Review

In the late 1980s, the concept of 'New Public Management' (NPM) emerged in the UK and other Anglo-American countries. At its roots were the changes in the UK public sector (Cairney, 2002), changes that found their way into the academic literature under the umbrella of concepts and ideas of NPM (Aucoin, 1990; Hood, 1991).

Although there are several doctrines associated with NPM (Hood, 1991; , 1995), they share the fundamental idea of eliminating the differences between private and public sector and advocate a change in emphasis from processes to results (Hood, 1995). Hood (1991; 1995) argues that NPM is operationalised by reducing the size of public sector organizations into smaller units, by creating a more competitive environment within the public sector, by giving preference to private-sector styles of management, and by promoting the efficient use of resources. These four of these aspects contribute towards bringing public and private sectors closer of each other and appeal for a sense of accountability in management in the public sector. Hood (ibid) further argues that the

operationalisation of NPM is attained by fostering professionalism of top-management of public sector organisations, by choosing clear and measurable performance standards, and by emphasising output controls. These aspects link extensively with the ideas of NPM since the administrative and professional discretion should be surrounded by explicit patterns and rules. Examples of the application of NPM principles in the public health sector are provided by previous researcher (Cairney, 2002; Harrison & Smith, 2003; Holloway, Francis & Hinton, 1999; Jacobs et al., 2004; Jones & Dewing, 1997).

Humphrey et al. (1993) dwell into the ideas of NPM by describing the changes in UK's public sector since the introduction of Neo-liberalism in the late 1970s early 1980s. They report an increased interest in managerial accountability within public sector organizations, since the fundamental changes were introduced to public sector management leading to more efficient controls, introduction of performance indicators, improved resource management procedures, and the establishment of cash limits (Humphrey et al., 1993).

NPM has been regarded as universal (Hood, 1991) for two main reasons. First, because it was portable and transferable since it was possible to apply the concept in different countries - from New Zealand and Spain (Newberry & Pallot, 2004; Torres & Pina, 2004) to less developed countries (Uddin & Tsamenyi, 2005) - in different industries - from police (Hoque, Arends & Alexander, 2004) to healthcare (Cairney, 2002; Harrison & Smith, 2003; Pettersen, 2004) – and at different levels - from central government (Newberry & Pallot, 2004) to local government (Bogt, 2003; Budding, 2004; Rouse & Putterill, 2005). Second, because it was considered to be non-political since it was used by Right Wing (Boden, Cox & Nedeva, 2006) and by Labour governments (Harrison & Smith, 2003). This is consequence of the fact that the NPM framework was proposed as a mechanism to achieve a higher level of efficiency and effectiveness in the public sector and this is a common objective for political parties from right to left wing. If we accept that efficiency and effectiveness can be achieved through innovation in management accounting procedures, this means that achievement will largely depend on the governments decisions (Jackson & Lapsley, 2003; Lapsley & Wright, 2004).

There are reported examples of the application of NPM principles in the public health sector (e.g. Cairney, 2002; Harrison & Smith, 2003; e.g. Holloway et al., 1999; Jacobs et al., 2004; Jones & Dewing, 1997). One of the most important and visible changes in NPM is in the area of accounting. Jones and Dewing's (1997) study examines the attitudes of clinical staff towards changes in accounting in the British public health sector. They conclude that changes in accounting were not relevant for medical staff, but were very important for management professionals for control purposes. In the same vein, Pettersen (2004) argues for the evaluation of interpretation and utilization of accounting information by top medical staff. This recommendation derived from his study of the reforms in Nordic countries (Pettersen, 2004).

Jacobs et al. (2004) found that although there was some curiosity in cost and activity information, medical staff usually did not access it because this information was mainly available at the most senior levels. These findings emerged from the analysis, conducted in four European countries, of the consequences of health reforms in terms of cost and performance information on doctors (Jacobs et al., 2004). In the UK, doctors had experienced problems with the changes. Doctors became more engaged in management and decision-making functions, but the increase of centralization of the purchasing function on health authorities reduced their role (Cairney, 2002).

These changes in the public sector have led to a greater concern about efficiency, effectiveness and performance. Holloway et al. (1999) argue for more complex approaches to performance improvement, such as benchmarking, in public health sector. They conclude that even with the best management skills and organizational culture, public managers face important challenges. Aidemark and Lindkvist (2004) report on the transformation of two Swedish public hospitals into limited companies. This change had deep effects, with the hospital management becoming more commercially oriented, increases in productivity, and faster decision-making procedures that connected management and hospital physicians in the same vision and sense of purpose (Aidemark & Lindkvist, 2004). The level of government involvement in pricing and reporting in the health care sector has been found to be different across Nordic countries (Pettersen, 2004).

Otley's (1999) Framework

Otley (1999) proposes a framework to analyse the operation of MCS. The framework draws on Otley's many years of research experience, including his substantial contribution to the contingency theory of management accounting (which is based upon the idea that there is no single MCS that can be universally applied to organisations and circumstances (Otley, 1980)). Otley (1999) maintains that an understanding of the structure of performance management within organisations requires the consideration of five key areas: key objectives, strategies and plans, target setting, rewards systems, and information flows.

Few researcher studies have made drawn extensively on this framework, although many have cited it. Exceptions include Ferreira and Otley (2005), who use the in a field study and propose an extended framework for analysis of performance management, and Stringer (2004), who used the framework to review published field studies. Other research studies (Moon & Fitzgerald, 1996) draw on Otley's (1987) version of Otley (1999) framework.

Researchers have identified several strengths in Otley's (1999) framework. Stringer (2004), in her review of the management accounting articles published in Management Accounting Research, and Accounting, Organizations and Society, found the framework general and helpful in her analysis. In similar vein, Ferreira and Otley (2005) maintain that the framework provides a useful structure to the analysis of

organizational control systems. The framework was regarded as robust in capturing various aspects of control systems in organisations and may provide support to other approaches such as culture (Stringer, 2004). Also, as the framework is generic, it is possible to complement it with other MCS frameworks, as shown by Ferreira and Otley's (2005) study where it was combined with Simon's (1995) levers of control. Another strength of the framework is that it is possible to use it directly without much difficulty and the questions presented are significant to organizations (Ferreira & Otley, 2005). A final strength suggested by Ferreira and Otley is that the framework facilitates the collection of data, especially when large amounts of information is handled.

But there are also limitations that have been associated with Otley's (1999) framework. First, the framework does not make a reference to the organization's vision and mission (Ferreira & Otley, 2005). As these issues must be taken into account in a management control process, it is only by the item 'objectives' that Otley's (1999) framework can cover these areas (Ferreira & Otley, 2005). To overcome this limitation, in their extended framework, Ferreira and Otley (2005) give these aspects explicit recognition as part of the MCS. Second, Ferreira and Otley (ibid) found that the framework is more focused on diagnostic controls, as described by Simons (1995), and as such it oversees the more subtle and less conventional uses of MCS such as interactive MCS use.

Third, the utilization of Otley's (1999) framework provides information regarding the existence of MCS but not specifically how they are used (Ferreira & Otley, 2005). This distinction between existence and use of MCS is highlighted by Langfield-Smith (1997). Finally, Ferreira and Otley (2005) argue that the framework take a static stance and as such it is oblivious to change and its dynamics.

In this study, Otley's (1999) framework was complemented with Merchant's (1998) framework, to which we now turn.

Merchant's (1998) framework

Merchant (1998) maintains that there are three main reasons that justify why individuals may fail to act in organization's best interest. These are lack of direction, lack of motivation, and lack of abilities. First, lack of direction happens when individuals do not understand what is expected of them, leading them to perform poorly. It is for management accountants to design MCS that assist in overcoming this issue so to increase employees' contributions towards organizations' objectives (1998). Second, lack of motivation emerges when individuals who are aware of what is expected of them are not interested in behaving appropriately because of motivational problems. This can happen when organizational objectives conflict with those of individuals. At least sometimes, employees will act in their own interest, rather than in the organization's best interest (Merchant & Van der Stede, 2003). Thirdly, the lack of innate abilities or acquired abilities is another source of control problems, because they occur even when individuals know what is expected from them and are extremely well motivated. These problems are rooted in the lack of intelligence, training, experience,

or competencies for the work, but also on poor job design that leads inadequate decision-making and accidents (Merchant & Van der Stede, 2003).

To prevent organisations from the suffering the effects of the control problems – i.e. lack of direction, lack of motivation, and lack of abilities - management uses control systems (Merchant, 1998). The vast array of controls types available can be classified into three main categories according to the object of control, that is, whether control is exercised over results, actions or personnel (Merchant & Van der Stede, 2003). Ouchi (1980; 1979) used a similar classification of control types, describing them as output, behavioural and clan and social.

Results controls

Control can be often be effected by focusing on results. Results are presented in only one basic form, that of results accountability. To put into practice results control, managers have to identify the dimensions along which results are desired and define standards of performance, measure performance on these dimensions and compare it with the pre-defined standards, and provide rewards for the desired results on order to promote the behaviours that lead to those results (Merchant & Van der Stede, 2003).

One of the most important forms of results controls is the budgetary systems, which not only measure outputs but inputs as well. The promise of future rewards (or penalties), another form of result control, can be used as extrinsic motivation to induce individuals to behave suitably. However, the effectiveness of result controls is dependant upon individuals knowing what results are being sought, the existence of individual's ability to influence the results for which they are being held accountable and the ability to measure the results effectively (Merchant & Van der Stede, 2003).

Action Controls

Action controls are designed to lead individuals act in a certain ways (Merchant & Van der Stede, 2003). Examples of action controls include behavioural constraints, which are implemented to impede undesirable behaviours, pre-action reviews from superiors to subordinates, action-accountability controls, and the costly option of redundancy. The implementation of action-accountability controls requires managers to define the limits of satisfactory behaviours (such as work rules, policies and procedures), follow the behaviours of employees, and penalise deviations from the defined limits (Merchant & Van der Stede, 2003).

Personnel controls

The use of personnel controls can result into two basic forces (Emmanuel, Otley & Merchant, 1990). Self-control, a naturally present force that drives most individuals to do a good job most of the time and social control, the pressure placed by workgroups on those who show dissent from a group's norms and values. By upgrading the

capabilities of personnel in key positions through improved selection and placement policies, managers can encourage these basic forces. They can also introduce training programmes and improve communications to improve individuals' understanding of their roles. Cohesive workgroups, with shared goals, typically induce peer control, which increase the probability of individuals behaving in a way that is coherent with the organization's goals. In their study of the role of accounting and non-accounting controls in R&D divisions of two large industrial companies, Abernethy and Brownell (1997) show that personnel controls have an important role in organization effectiveness.

3. The Research Method

The case study method was used in this field study. Yin defines a case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (1994, p.13). The use of this research method in the management accounting literature has become a widespread accepted method. This follows a number of calls for the use of case study research in the field of MCS (Kaplan, 1984; Otley, 2003; Scapens, 1990).

Yin (1993) classifies case studies into exploratory, descriptive, or exploratory and each one of these can either be based on a single or on multiple case studies. Exploratory case studies aim at constructing questions and hypotheses for subsequent studies, while descriptive case studies show a full description of an experience within its context and explanatory case studies identify the causes produces the observed effects (Yin, 1993). An alternative classification has been proposed by Otley and Berry (1998): exploratory, critical, illustrative and accidental. They consider exploratory case studies those that go beyond the mere description of an issue and which adopt an inductive or deductive mode.[1] Critical case studies aim at demonstrating that the theory is wrong by offering data that contradicts the theory, while illustrative case studies are used to clarify the existing theories via empirical observations (Otley & Berry, 1998). Finally, accidental case studies are not planned, although they may produce important contributions to the literature (ibid).

This study offers a multiple-case exploratory (Yin, 1993) in that no particular hypotheses will be tested, but rather it represents a first approach to analyze the evidence and to generate issues for future research. The case studies fulfill also a descriptive role (Yin, 1993), particularly when they draw on Otley's (1999) and Merchant's (1998) frameworks to amass and describe the evidence collected. The choice for this type of research strategy took into account the three conditions identified by Yin (1993), that is the type of research question, the researcher's control over behavioural events, and the center of attention (present or past events). (The type of

[1] The inductive mode happens when generalizations are made from observations, while the deductive mode occurs when some hypothesis are inferred from the theory and tested using observations.

questions were “what”, ‘how’ and ‘why’, no need for control over behavioural events and the study focused on contemporary events.)

Access and Data Collection Process

During 2004 and 2005, meetings were held with key staff from the Health Sub-Region (HSR) of Porto. These meetings aimed at clarifying the developments in the HSR and in Health Centres (HCs) in terms of management control. Following these meetings, three HCs were selected for conducting the study, having taken into consideration their location and size. Location was a key factor because of the usual difficulties of HCs located in rural areas in attracting and retaining staff.

The case study drew on semi-structured interviews with key informants in HCs and HSR and on archival and other data collected regarding these organizations. Two different sets of questions were developed for the semi-structured interviews, considering that two frameworks were used in the study. These questions were used in the interviews with HC’s directors, doctors, chief nurses, and chief of administrative staff. A simplified set of questions was employed when interviewing patients. All interviews were concluded in May 2005, and all of them were tape-recorded and fully transcribed. In total, that is considering the three case studies, three HC’s directors, three doctors, three chief nurses, three chiefs of administrative staff and 15 patients were interviewed. Additional evidence used to complement the evidence collected directly from HCs was obtained from HSR staff. This included interview material and archival data that was also useful for the triangulation process (Modell, 2005; Yin, 1993). Five staff members from HSR, including the HSR Coordinator, were interviewed at various points of time during the development of the research project (see Appendix A for a detailed list of interviews).

4. Empirical Study

4.1. The background

The reorganization of the Health Ministry Office conducted in 1971 has paved the way for the creation of the first Health Centres in Portugal.[2] Four years later the health care district administrations emerged and in 1979 the *Serviço Nacional de Saúde* (National Health Service (NHS)) was created as a public-integrated model. Health care was organised and operated as any other government department in that health professionals are considered as public sector employees, although doctors working for the NHS were also allowed to have private practice. This system has been in place ever since.

[2] Governo Português. (1971). Decreto-Lei 413/71, de 27 de Setembro.

The NHS was decentralized in 1993 and organised in five health regions: North, Center, Lisbon and Tagus Valey, Alentejo, and Algarve.[3,4] Each region is administrated and managed by an autonomous RHA (Regional Health Administration), which is accountable for monitoring the health status of the population, supervising the providers of NHS, and allocating financial resources to providers in the health region under their management. Despite the regional management and the general improvement of health status levels all over the country during the 1990's, there is a clear and direct relationship between population health status and the coastal location and urbanization of municipalities (Santana, Vaz & Fachada, undated). That can be one of the reasons that Portuguese Government has declared, in October 1999, that health care as its main priority and two years later created the Portuguese Observatory on Health Care System (*OPSS - Observatório Português para os Sistemas de Saúde)* (Sakellarides, 2000).

In addition to the Portuguese NHS, there are health insurance sub-systems that are financed through social contributions that cover about 25 percent of the population (mainly civil servants and employees from private financial organizations). Health care can be provided either by the insurance company or through their contractors (private and/or public health care providers). This population can also use NHS services, leading to one quarter of the population benefiting from double or even triple coverage through sub-systems in what can be regarded as a potential misuse of scarce resources (Guichard, 2004). Recently, the 17th Constitutional Government has changed most of these sub-systems in order to merge all of them into one (Governo Português, 2005a; 2005b; 2005c).

Primary Health Care in Portugal

Primary Health Care plays a key role in the health care system since it is usually the first contact point with the population. Following from a reflexion on health financing in Portugal conducted in 1997, it was decided that HC should act as a gatekeeper of the hospital network (Associação Portuguesa da Economia da Saúde, 1997). Individuals can choose a GP (general practitioner or 'family doctor') from a primary health centre within their residential area with whom they have to register. It is this GP that will refer, when needed, patient to public hospitals or private specialists approved by the NHS.

Guichard (2004) points out four main problems of the Portuguese HC. First, global resource allocation within the health care system is not favourable to primary care, because hospitals claim the bulk of the resources causing scarcity at the HC level. Second, the allocation of the scarce resources is sub-optimal, since HC do not have financial and managerial autonomy, which combined with bureaucratic rules, has led to inefficient patterns of service. The lack of efficiency among HC is supported by the evidence provided by Mourato (2004), which led him to conclude that almost 70

[3] Governo Português. (1979). Lei 56/79, de 15 de Setembro. This Decree Law established the Rules of Portuguese NHS.

[4] These regions are subdivided into a total of 18 districts.

percent of Alentejo's HC were not efficient. Third, primary care supply is currently insufficient, since about ten percent of the population is waiting to register with a GP. Finally; the HC gatekeeping system has the undesirable effects of encouraging continuity and allowing primary care doctors to filter and co-ordinate care. This may reduce patient's satisfaction and lead to duplication of visits.

The Minister of Health acknowledged in 2004 the continued shortfall of GPs and the shortcomings in HC organisation (Direcção-Geral da Saúde, 2004a; 2004b; 2004c). Interventions were regarded as a need, including HC reorganisation through implementation of new information systems, decentralisation, training, and greater flexibility in setting remuneration packages for health professionals through introduction of new payment mechanisms such as capitation (Ministério da Saúde de Portugal, 2003).[5] However, changing remuneration systems does not appear to be sufficient. Pereira (1998) concluded from his survey study that the functions performed by the family doctors and the organization of HC are factors that contribute to doctors' professional dissatisfaction. In a study conducted in 2001, it was found that health services managers were more aware about performance management at an institutional level than at an individual level (Conceição, Gonçalves, Blaise, Lerberghe & Ferrinho, 2001). This highlights the issue of lack or performance evaluation and management at an individual level.

4.2. Primary Health Care Centre 1 (HC1)

Background

HC1 was located 60 kms away from the city of Porto in a rural area. The Centre served a population of 52,930 inhabitants, but the number of registered patients was about 54,300 (this represents a cover rate of about 102,6%, a little below the district average cover rate of 106,8%) (ARS Norte - SRS Porto, 2004; , 2005). HC1 had 20 family doctors, 27 nurses and 23 administrative staff professionals and was supported by some primary care equipment.

During 2004, HC1's output included more than 33,000 initial appointments, whilst the total number of appointments during the same year was approximately 125,000. Thus, the average number of appointments per patient per year was 3.78, which compares with district average of 4.0. The rate of active patients of the HC1, that is, the percent of registered patients that in fact use the centre, was in the same year of 61%, a little below the district average of 65.9% (ARS Norte - SRS Porto, 2004; , 2005).

[5] In 1998, a voluntary Experimental Remuneration Model for GPs, involving 500 doctors, was launched. This model included adjusted "capitation" income and a bonus system based on the completion of specific health care targets. This pilot-experience showed positive results.

Otley's (1999) framework

Objectives

Three key objectives were apparent at HC1. Firstly, to improve the level of service by insuring that all patients had an assigned GP was indicated by HC1's Director as the key priority of the Centre. At the time of the interview, there were 18,200 patients without an assigned GP, an issue that was regarded very negatively by patients. Secondly, to provide all pregnant women and children under the age of two a 'family doctor' was a second key priority, according to the HC1's Director. This objective was been achieved at HC1, despite the low number of GPs in the Centre. This is consistent with the statement by an interviewed pregnant woman, who indicated not to have any complaints with regards to the service received at HC1. Thirdly, the other key objectives of HC1 were treatment and, more importantly, disease prevention, although the Director stated that due to shortage of GPs and nurses the Centre only provided the "essentially treatments."

The third key objective – treatment and disease prevention – was considered by the interviewed GP as the main objectives of HC1. Similarly, the definition of the main objectives of the HC by the interviewed nurse was health promotion and disease prevention. Another important objective, although not considered by the nurse as important as the previous one, was disease treatment. Nevertheless, the nurse conceded that treating patients was the most usual, leaving behind the other more important, but less urgent, objectives. This view was corroborated by the administrative officer interviewed, who asserted that the main objective of the HC was to treat patients, because there was no time available for prevention. The nurse also noted that new staff received the host manual upon their deployment to HC1 and that it explained, among other things, the Centre objectives, the way it operated and its rules and regulations.

Strategies and Plans

Broad strategies for HCs were defined centrally by HSR, leaving to local centres the development of operational strategies. HC1's Director expressed the view that he wished to implement strategies in health promotion area, but that this was restrained by lack of human resources (i.e. GPs and nurses).

HC1 did not seem to have any operational strategy or plan well-defined, which meant that the Centre was mostly managed on an *ad hoc* basis. This view was expressed by the chief administrative officer. This interviewee also noted that although every HC was required to produce its Activity Plan[6] to deliver to HSR, there was plenty of 'flexibility' with HCs that experienced structural problems, such as shortage of staff. Although the interviewed GP stated that there was a plan for health services, this was dismissed by the chief of administrative officer. This officer admitted that HSR had requested the Activity Plan several times, a plan that was usually produced by a person from the administrative area. So, in conclusion, there was very little of strategic

[6] Governo Português. (1993). Decreto-Lei 11/93, de 15 de Janeiro.

thinking at the level of HC1 and no significant planning. It was mainly an *ad hoc* management approach.

Target setting

With little planning being made at local level, target setting was not common practice. Although HSR appeared to have set targets for some key performance measures, the HC1's Director did not know what level of performance the Centre was required to achieve. Similar comments were received from the other interviewees. The chief administrative officer stated "there are no defined objectives, which is a problem for performance measurement; [this is something] that must come from high structures and yet nothing comes to us." Although the Chief Nurse noted that her team worked towards the highest quality standards, the lack of quantified objectives is likely to negatively affect performance (Merchant & Van der Stede, 2003).

Rewards

HC1's interviewees were unanimous in stating that there were neither rewards nor penalties associated to their performance. But as stated by the GP, it would be difficult to know who should be penalized or rewarded given that no-one knew what the pre-defined level of performance of the Centre was. The Director illustrated the lack of reward and penalties with an anecdote: "I have a GP who does not turn up 140, 150 times a year without giving explanation for it. As far as I know he did not have any penalties for it." The Chief Nurse indicated that staff had to work in a self-motivation basis given the inexistence of a rewards system. However, even this self-motivation seemed to be at jeopardy because "nobody gives us the right value; on the contrary, it is all about orders, nothing about rewards", the nurse maintained. This remark was consistent with the opinion of the chief of administrative officer who stated that "once I tried to save some money for the HC by changing our cleaning provider, I had several problems with the Director because the provider demanded an unfair compensation for the change." In conclusion, there were neither performance evaluation mechanisms nor reward systems in place. Only intrinsic motivation and the satisfaction of performing and doing one's duties appeared to be a motivator for staff.

Information flows

Information circulated in HC1 with some difficulty. The overall direction that the Centre was to take was defined centrally by HSR. Some guidelines for change and improvement to the Centre performance were received from HSR, stated the Director. Additionally, this interviewee noted that HC1 learned from experience and this learning was incorporated in new decisions.

Internally, nurses were the only group of professionals that had regular meetings, usually after working hours, to discuss better ways of performing their roles, maintained the Director. The Chief Nurse confirmed the existence of these meetings and stated that nurses that missed the meeting were briefed with the relevant

information. This was not a common procedure among doctors who, according to the interviewed GP, "learned by themselves with no team work". Furthermore, the interviewee considered the nurses' meetings very positive in improving their performance and that a similar arrangement for doctors would be beneficial. Among administrative staff there was no formal way of promoting learning, but when possible, procedure corrections were transmitted to all administrative staff, stated the chief of administrative officer. Also, suggestions for improvement in procedures were encouraged in the administrative area.

Discussion

Objectives. A conflict between stated objectives and practice seemed to exist at HC1. The vast majority of interviewees recognized that the main objectives of a HC should be prevention and health promotion. However, in practice, other objectives were given priority. For example, the Director's main concern was to solve the lack of GPs' problem. The GP, the nurse and the chief of administrative officer interviewed maintained that treatment of patients was their first priority.

Moreover, no concern about the way resources were managed was expressed by HC1 staff. This can perhaps be explained by the fact that HCs were neither financially nor administratively autonomous. As such, most professionals were likely to regard resources issue as an external problem, because salaries and all main costs were born directly by HSR not by the HC. This can may suggest lack of accountability among professionals.

Strategies and plans. The Director and the administrative staff of HC1 did not identify any strategy or produce plans for the centre. It appeared that key employees in the HC did not have enough guidance, an issue potentially problematic for the organisation. The reason offered by interviewees was that they were waiting for directions/instructions from HSR. As stated by a former HSR staff member currently working at a HC, HSR demanded a plan from all HC, although it was very 'flexible' with centres that faced staff shortages. Thus, HC1 did not run into problems for not having prepared the requested plan.

On the other hand, the doctor and the nurse indicated to be aware of the activities' plan they had to deliver. This suggests that there were neither strategies nor plans at the management level, but in medical area there were some form of plans that provided orientation to staff. The explanation for this ambivalence may rest on the fact that HSR had two directorates: administration services (which included the financial division) and health services. As each one provided information for HC in a relatively independent way, it was not unusual for medical services to receive guidelines from health services, whilst management did not. HC1's Director, in spite of being a GP by training, was closer to administration services and, consequently, was not necessarily aware of what was happening in the medical area.

Targets. In terms of level of performance the institution had to achieve, the response was unanimous: No level of performance was defined and no targets were set. The consequence of this was that professionals' performance resulted from their sense of duty and professional accountability.

Rewards. Given that no targets were previously defined, it was not possible to have rewards or penalties. The inexistence of a reward system was not unique to HC1. This is common practice in all Portuguese public administration. There were severe restrictions in assessing public servants' performance and labour unions were very active in maintaining the *status quo*. For several times, labour unions had publicly argued for the equal distribution of rewards or prizes, an approach that renders rewards system ineffective (due to free rider problems).

Information flows. The majority of information circulated orally in the Centre. There was no procedures manual and no written documentation indicating information flows. GPs worked individually and this did not contribute to sharing important information. Communication between the Director and GPs seemed to be ineffective as they expressed opposite views on common issues. For example, while the GP stated that GPs were motivated, the Director maintained that there was lack of motivation among GPs.

Merchant's (1998) framework

In this section we analyse the empirical evidence using Merchant's (1998) framework. The aim is to examine whether HC1 has the control problems defined by Merchant (1998), i.e., lack of direction, lack of motivation, and lack of abilities.

Provision of direction

At the management level, each HC received its main orientations from HSR. There were some management tools used by HSR to monitor HC's direction in two main areas: medical and administrative / financial. Medical area was controlled through the Activity Plan and *tableau de bord*, while the administrative / financial area relied on the *tableau de bord*, on the petty cash fund management, and on the budget of the HSR (which was divided by HCs) for control purposes.

At the more operational level, within the Centre, there were other aspects to consider help understanding the Centre's direction. First, the Director explained that the guidelines that came from HSR were the basis for the work among HC1's staff. Those guidelines were copied and distributed for all Centre's staff. However, the nurse admitted that, most of time, professionals did not perform according to strategic orientations from the higher structures of the Health Ministry due to time and other

resource constraints. As an example, one can point the practice of providing curative health care versus the strategic aim of prevention and health promotion.

The GP and chief of administrative officer maintained they were aware of the Centre's objectives, although there was no evidence of written them. On a different note, the chief administrative officer admitted that the procedures manual could be useful for control purposes, but that this had not been possible to produce up to that point of time.

Thus, all considered, the existing management control systems at HC1 seems to be short of its role of providing direction to individuals working at the Centre. Where direction was provided, there appeared to exist a lack of coordination that created difficulties to the MCS in fulfilling its role.

Provision of motivation

There are two different types of motivation: intrinsic motivation and extrinsic motivation. Intrinsic motivation comes from the inside and it was reflected by the statements made by interviewees when they spoke about how satisfied they feel when doing their job. Extrinsic motivation is externally provided to individuals, such as monetary rewards.

Interviewed professionals stated that they were very motivated. The Director was motivated because s/he wanted to change the difficult situation of lack of medical staff. The GP pointed self-achievement as the main reason for being motivated when s/he stated that "being a doctor is an important mission." For the Chief Nurse it was the way his/her job had been designed the main cause of her high motivation. S/he stated "In the HC1 I do not have to work on weekends, nights, or holidays, like in hospitals." The chief of administrative officer highlighted patients' satisfaction as being very important and a key source of motivation. S/he wanted to transform HC1 into a role model for the others and disseminate his/her motivation to other colleagues.

Partially in contrast with their self views, HC1's Director noted that it was very difficult to motivate staff, especially GPs and nurses. The Director noted that some staff, especially GPs, was not available to work extra hours even when paid for it. Boredom due to repetitiveness of work and excessive emphasis on curative health were identified as two of the factors that negatively affected GPs' motivation. This low motivation was the cause, according to the director, of the end of GPs meetings.

The Chief Nurse stated that "some young nurses come to HC with many good ideas, but they cannot put these into practice because there is other monotonous work to do". As such, motivation was much lower than it could possibly be. Among administrative

staff, short-term contracts and the request to complete tasks for which they were not prepared were causes of disappointment and low morale.

All considered, the existing MCS did not seem to provide enough motivation to individuals as there were limited structures in place that contributed to this end.

Provision of abilities

HC1 appeared to have adequately trained medical staff. It is generally recognized in the country that doctors received high standard training in local universities. However, doctors require continuous training due to the development of medical sciences. This was achieved via attendance to medical congresses and conferences, the GP stated. Related to this issue of learning and training were the GP meetings, that provided a forum for sharing of knowledge and experiences. The GP admitted that these meetings were no longer held at HC1, although some information was informally shared among GPs.

In contrast, nurses' meetings were well-established and appeared to be a relatively successful forum for a sharing of experiences that contributed to improvements in nurses' performance. Also, HC1's nurses appeared to have adequate training. This was in sharp contrast with administrative staff, which appeared to be poorly prepared to perform certain activities (e.g. public assistance). This was supported by HC1's Director's recognition "there is a need for training, especially among administrative staff." This deficiency at the level of abilities and skills is likely to be a reflection of the poor selection practices of the country's public administration.

The abilities and skill gap was also apparent at the level of the HC1 Director, who did not have any specific training in economics, management, accounting or finance. S/he stated "I am the responsible for the financial area [of the HC1] and I need to have a minimum of knowledge about it, but [what I know] is kind of auto-didactic." The GP noted that the Director of the HC1 should be a professional manager, as with other HCs.

Thus, there seemed to be some lack of abilities at the HC1 level, particularly among administrative staff and management. Although GPs did not have regular meetings, this did not appear to severely affect their skills. Nurses seemed to be one of the most well trained staff groups in the Centre.

Discussion

In terms of the link between HSR and HC1, there seemed to exist poor communication regarding performance between HSR and the Centre. However, this Centre was not used to produce the Activity Plan that should be presented annually to HSR due to lack

of enforcement. Hierarchical controls seemed to be very weak in the relationship between HSR and HC1. This seemed to have led to poor direction being given to HC1. Within HC1, professionals were aware of some objectives and different views into what the key objectives were expressed. The poor information flows severely affected goal alignment between HSR and HC1 and among different staff groups at HC1.

The application of additional resources to the development of clear job design for staff might assist in reducing HC1's motivational problems. Specific training could assist in improving staff qualifications, as well as improvements in staff recruitment and selection to ensure that skilled employees join the Centre (Merchant & Van der Stede, 2003). The institutionalisation of meetings could provide an appropriate forum for communication of objectives and key priorities. Furthermore, a stronger leadership could be useful to create a different organizational culture that could be reinforced by the use of group rewards.

4.3. Primary Health Care Centre 2 (HC2)

Background

HC2 was located in the city of Porto. The Centre served a population of 37,855 inhabitants, but the number of patients registered was about 43,000 (this represents a cover rate of 113,5%). The Centre had 23 family doctors, 25 nurses and 17 administrative staff professionals. There was some equipment available in this HC to provide primary care services.

During 2004, HC2 had more about 22,400 initial appointments and a total number of appointments above 78,000. Hence the average number of appointments per patient per year in the Centre was 3.5, a figure that compares with the district average of 4.0. On the other hand, the rate of active patients was about 52% (the district average was of 65.9%), which means that only half of registered patients used the HCs in 2004 (ARS Norte - SRS Porto, 2004; , 2005).

Otley's (1999) framework

Objectives

A number of key objectives were apparent at HC2. First, the interviewed Director explained that the provision of quality in health care services was the most important objective. "Although there is an insufficient number of staff, we are trying to provide patients a healthcare service with quality", stated the Director. Second, other two key objectives of HC2 were health care (including prevention, health promotion, and treatment) and training, according to the interviewed GP. This interviewee explained that "both objectives [health care and training] are related, because if we cannot satisfy our internal client, the professional, we cannot satisfy our external client, the patient". The GP noted that patients' satisfaction depended directly from the professionals' motivation and satisfaction. Third, another key objective of the Centre was to satisfy

the immediate needs of patients. Although the Chief Nurse acknowledged that health care in terms of promotion and prevention should be the main aim, the tendency was apply resources in patient's treatment. Finally, HC2 aimed to provide accessibility to patients, for example, by enabling them to make appointments by phone. This new process faced some implementation difficulties in the Centre. The chief of administrative officer experienced hardship in persuading colleagues. S/he stated "I had to talk with my administrative colleagues to persuade them to improve the service on phone calls, but it was not easy."

Strategies and plans

It was unclear what strategies were HC2 meant to follow, since no specific direction was received from HSR. It was only by following procedural controls that interviewees indicated to attempt to achieve HC2's objectives.

With regards to plans, two aspects stood out at HC2. First, the annual plan was mentioned by all interviewees as the main planning control mechanism. HC2's Director acknowledged that most guidelines came from HSR, although s/he also stated that "it is our responsibility to identify the main areas to take action". This view was shared by the GP, who was the former Centre's Director. The chief of administrative officer pointed out that the Centre evaluated its success in meeting the Activity Plan without any involvement from HSR. The Activity Plan included specific objectives for different areas (e.g., nursery).

Second, HC2 was one of the centres that volunteered to use the *MoniQuOr* system. The *MoniQuOr* system was used for measuring the Centre's performance, explained the Director. The use of this system required the cooperation of individuals from all staff groups (i.e. doctors, nurses, and administrative staff).

It is worth noting that although the *MoniQuOr* system did not take too long to implement and was simple to use, only a few of HCs had volunteered to participate in the project, stated the Director. The Director also stated that "in the past, the *MoniQuOr* had a higher adhesion by other HCs, but now, probably, there are other priorities. However, I think it is a good methodology to evaluate institutions' performance."

Target setting

It seemed that the level of performance HC2 had to achieve was defined internally, rather than being externally imposed by HSR. The Director explained the Centre received indicative targets from HSR, but that targets were ultimately defined internally for various areas, such as levels of service to vulnerable patients' groups. Similar views were expressed by other interviewees, such as the nurse and the chief administrative officer. It was also noted by the nurse that it was sufficient to accomplish the pre-defined norms and rules. The chief of administrative officer explained that although

HSR did not impose any performance targets for the Centre, "the objectives [i.e. targets] were defined accordingly with HSR indications, and evaluated within the Centre." On a different note, the GP stated that the introduction of the Program-Budget, three years before, had cultivated a culture of greater accountability that was now evident.

Rewards

It was clear that no reward system existed at HC2. The Director explained "We have neither rewards nor penalties, but I think things should change. We must give incentives to institutions and to staff in order to have improvements." The interviewed GP maintained that from a formal point of view there were "zero rewards". It was also stated that some people within public administration made mockery of those that made efforts to improve by using expressions like "you will receive a cork medal!", the GP stated.

In different line of thinking, the Chief Nurse argued that self-achievement was the single reward that existed and that it was the result of fundamental teamwork. S/he stated "this year we achieved the vaccination target and we are very happy. This is [the result of] teamwork, because if the doctors did not send patients to vaccination and did not motivate them, they would not go." The idea of personal self-satisfaction was shared by the chief of administrative officer, when he stated "if we look to our performance indicators, evaluate them, and confirm that they are improving, that gives us a special satisfaction."

In sum, similarly to HC1, there were no forms of extrinsic rewards in place at HC2. However, some staff indicated personal satisfaction as an effective form of reward for the performance achieved. The GP and Director's views were in line with NPM ideas and principles to the extent that they clearly argued in favour of the use of extrinsic rewards.

Information flows

Five types of information flows were identified at HC2. First, Director noted the importance of informal discussions among staff and staff groups in disseminating information. Second, key orientations were established by Director for GPs, who were then accountable for outcomes and processes involved in achieving them. This involved the use of the appointment management system by the GPs that enabled them cover for each other when needed and consequently permitted to ensure that patients were looked after on the day and time of their appointment. The Director maintained that "in the last five years we have tried to give responsibility to all professionals; we want them to feel responsible for what happens in this institution."

Third, closed circuit television (CCTV) displaying a video was used for communication with staff and patients by the Centre. The video included information regarding policies and administrative procedures. This media is not common in HCs. Fourth, the host manual was another tool used for providing information to staff and patients. "We found that the host manual and the information video were precious helps to avoid complaints from patients; each person acknowledged what is expected from them", stated the Director. Finally, information also flowed in staff meetings. As indicated by the Director, these meetings were instrumental in the process of making the Centre's objectives known to all staff. Also, the Chief Nurse explained that meetings were used to "define who does the teaching" as part of the "annual training plan." Attending meetings was part of the regular activities of staff for GPs and administrative staff, although medical meetings had a fortnightly pattern, while the administrative staff meetings had no defined pattern but were used to "talk about improving procedures to optimize HC's efficiency", stated the administrative officer.

All considered, HC2 seemed to be slightly different from HC1. Several and diverse information flows were apparent and these appeared to be driven by the goals of improving quality and organisation.

Discussion

Objectives. In HC2, as with HC1, there seemed to be a conflict between stated objectives and what actually happens on the field. This was reflected by the fact that all staff highlighted the importance of prevention and health promotion, while they acknowledged that health treatment was at the top of the priorities. However, there appeared to exist more cohesion behind stated objectives when compared with HC1.

Training was regarded as an important objective of the Centre and it seemed to be related with the motivational issues discussed by Merchant's (1998). The use of a KPI related to number of telephone bookings in the *tableau de bord* is likely to be the explanation for the emphasis given to this aspect by the chief administrative officer, in what can be regarded as a reductionist view of the roles of the Centre.

Strategies and plans. The evidence suggests that there was little strategic thinking at HC2, particularly with regards to the overall strategic directions that the Centre was to follow. The HSR appeared to have failed in providing to the strategic orientation required by the individual units under its control. Nevertheless, operational strategies and objectives were developed locally and these provided the impetus for the main activities conducted by the Centre.

In terms of plans, the use of the Annual Activity Plan and of the *MoniQuOr* were key parts in the process of implementing operating strategies and achieving the Centre's objectives. The Annual Activity Plan was highlighted by all interviewees as the most

important tool for the evaluation of HC2's performance, particularly because it followed HSR main orientations but was tailored to local circumstances. It was, however, surprising to hear interviewees indicating that no feedback was received from HSR with regards to how the Centre had performed according to its Activity Plan. This clearly reduced the scope of control and accountability at the institutional level. On the other hand, the use of the *MoniQuOr* was recognised by the Director as very important way of assessing and improving the Centre's performance.

Targets. Some targets were proposed by HSR, but it was up to each Centre to adapt them to local conditions. Therefore, there was considerable flexibility in target setting. The target setting process appeared to contribute to identifying key objectives but also increase staff participation and accountability.

Rewards. No performance evaluations or reward systems existed in the Centre. This was expected, since this was a common practice in the Portuguese public administration. However, not only there was not a culture of merit and performance but also, those who excelled in their jobs were subject of mockery by others at times. This created an environment unfavourable for performance, where staff was driven mostly by their self-satisfaction. The Director and the GP advocated the urgent need of implementing a reward systems a change to a organisational culture based on merit.

Information flows. In sharp contrast with our observations at HC1, a range of channels were used in this HC2 to assist the flow of information. These information flows assisted in creating a sense of direction, but then the Centre relied on empowered staff to carry out the tasks needed. It also contributed to a sense of togetherness behind the Centre's objectives that would at times lead to a more flexibility approach in dealing with the patients. The use of video and CCTV for communicating to staff and patients was an innovative in the public administration. This was complemented with a number of meetings with all staff groups for sharing information, experiences, actions and plans.

Merchant's (1998) framework

Provision of direction

As with HC1, a number of management control tools have used to monitor HC2's direction in two major areas: medical and administration / finance. Medical area was monitored through the Activity Plan and *tableau de bord*. The administrative / financial area was controlled through *tableau de bord*, Petty Cash Fund Management, and Budget of the HSR (which was divided by HCs).

At the more operational level, there were other elements to consider that could help to know the Centre's direction. For the Director there were no reasons for lack of direction. S/he stated "Meetings were made with all professionals to transmit the

mission and the objectives of the institution, which means that all professionals know what is expected from them". This opinion was shared by the other interviewed professionals that stated the regular use of meetings as a mean of clarifying direction.

GPs had regular meetings, in which they clarified eventual doubts about the orientation. Nurses were informed about what to do daily, as they worked in an open space that facilitated communication. Other doubts could be clarified during regular meetings among nurses. The interviewed nurse believed that "Before coming to a HC, people know what is expected from them". Administrative staff had usual meetings in which the objectives and guidelines were transmitted.

Thus, the existing structures of management control systems seemed to provide insufficient direction at the management level. At the operational level, it seems that HC2's professionals are aware of the direction of the Centre.

Provision of motivation

All HC2's interviewees maintained that they were very motivated in doing their work. This was due to intrinsic motivation and it was justified by the statements made by interviewees. For example, the interviewed GP stated "I do my work with all vigour. I am almost a possessive. I am in love, on the philosophical sense of the word".

The Director believed there was a growing feeling of motivation among all professionals of the Centre. However, there were some problems that limited motivation among professionals. First, there were some professionals with an advanced age that were resistant to change. Second, changing of structural health policies resulted from the changing of Governments. The long-term guidelines were put in question. Third, some nurses that were transferred from hospitals to HCs, as the result of hospitals' privatization, were not totally motivated, as they have to change their way of working. As stated by the Chief Nurse, there were many differences between the role of hospitals' nurses and the role of HCs' nurses.

In sum, the management control systems did not explicitly provide extrinsic motivation (rewards), but levels of internal motivation, at least, among interviewees, appeared to be generally at acceptable levels.

Provision of abilities

HC2's professionals were well prepared to perform their roles, especially in medical area. The only problem of personal limitations among medical staff was with some nurses that came from hospitals. According to the Chief Nurse some nurses were not well prepared to work in a HC, because they worked differently in the hospital. The

nurse said "For working in a HC, professionals have to learn a lot of procedures, because there are many differences between HCs and hospitals".

As with HC1, some personal limitations of administrative staff were apparent in HC2. Public assistance was the function that most of administrative staff was less trained. The Director explained "In the public assistance we have some old professionals, who do not assimilate the necessary competencies". The possible reason for this was the deficient process of selection and placement at public administration. In addition, some administrative staff was not available to learn, as they wanted to be retired soon. The chief of administrative staff believed that the SIADAP[7] would change the situation, as this system evaluated the professional's performance.

Discussion

As with HC1, the link between HSR and HC2 seemed to be weak in terms of communication regarding performance between HSR and the Centre. Although there was an Activity Plan produced annually by the Centre, there was no feedback from HSR.

Specific training could be useful in improving staff qualifications, especially among administrative staff. Additionally, improvement in staff selection would be important to assure that skilled professionals join the Centre (Merchant & Van der Stede, 2003).

4.4. Primary Health Care Centre 3 (HC3)

Background

HC3 was situated in a locality near the city of Porto. The Centre served a population of 64,387 inhabitants, but the number of patients registered was about 61,950 (this represents a cover rate of about 96,2%) (ARS Norte - SRS Porto, 2004; , 2005). HC3 had 35 family doctors, 38 nurses and 31 administrative staff professionals. There was some equipment available in this Centre to provide primary care services.

During 2004, HC3's output included more than 44,100 initial appointments, whilst the total number of appointments during the same year was above 198,700. Hence the average number of appointments per patient per year in the Centre was 4.5. This figure compares with the district average of 4 appointments per year. On the other hand, the

[7] The SIADAP – Sistema Integrado de Avaliação do Desempenho da Administração Pública is a system that evaluates the performance of the civil servants and other workers of Portuguese Public Administration (For further information, see Governo Português. (2003). Decreto-Lei 60/2003, de 10 de Maio., Assembleia da República Portuguesa. (2004). Lei nº 10/2004, de 22 de Março., Ministério das Finanças de Portugal. (2004a). Decreto Regulamentar nº 19-A/2004, de 14 de Maio., and Ministério das Finanças de Portugal. (2004b). Portaria nº 509-A/2004, de 14 de Maio.).

rate of active patients of the Centre was about 71%, which was above the district average of 65.9% (ARS Norte - SRS Porto, 2004; , 2005).

Otley's (1999) framework

Objectives

HC3 had several objectives. First, the interviewed Director stated that the key priority of the Centre was to satisfy patients. For achieving this goal it was necessary that staff worked effectively and contributed "with their share", stated the Director. This priority was shared by the chief administrative officer, who went further to state that the only way of achieving the objectives was "through a team effort of doctors, nurses and administrative staff". The other key objectives of the Centre were prevention, health promotion, health treatment, and health education and achieving this set of objectives was the major concern of the Chief Nurse. This interviewee stated that due to shortage of personnel it was not possible to give more attention to prevention. S/he added that healthcare in terms of prevention should be the principal objective, but in practice the priority was to treat patients.

Strategies and plans

It is unclear what strategies was HC3 meant to follow, since none of the interviewees had mentioned the existence of those strategies. This suggests that either HC3 devised its own strategies to achieve its key objectives. Differently, it seemed HC3 adopted two different tools to manage and monitor the performance of the Centre. First, the Centre used the Activity Plan and correspondent Activity Report. The Activity Plan had been produced with the contribution of all professionals having into consideration the guidelines received from HSR. The Plan included mainly health activities to do during the year. The Director added "We have to carry out the orientations from HSR, but no one stop us to do additional activities, projects…". The GP interviewed added "We do a state diagnosis (internal and external) to know what the main areas to take action are". The Chief Nurse explained that HSR prioritize risk groups, as diabetics, hypertensive and elderly. On the other hand, administrative staff interviewed stated that s/he was not aware of the Activity Plan details. "There is a plan, but you have to talk with the Director to know more about it". This suggests that administrative activities were performed without any planning.

Second, the Centre used information technologies to measure its performance. The interviewed GP stated that activities such as family planning, child health, were measured through the use of information systems. The tool used for this measurement was the SINUS software. This tool was available in all HCs. Some of the mentioned activities were measured monthly, others every six months, others even annually "in order to make the needed corrections to our future plan", stated the GP.

In sum, it seemed that HC3 had their own strategies, possibly based in some procedural controls from HSR. This Centre used the Activity Plan as an important management

tool in health services, especially when it was used in conjunction with the Activity Report, where planned activities were compared with the actuals. HC3 was not the only Centre that used the SINUS software, but the Centre's interviewees mentioned this instrument more frequently than in other Centres, thus suggesting a higher status of this management tool.

Target setting

It was common for the targets defined by HSR being introduced in the HC3's priorities, although these were adapted to the idiosyncrasies of the Centre (e.g. resources, number of patients, etc.). The interviewed GP stated it was very difficult to achieve the HSR targets since the Centre had several idiosyncrasies. This opinion was shared by the Director and the Chief Nurse.

Rewards

There was not a reward system at HC3, at least an "official" one defined by HSR. The Director mentioned that the rewards for achieving targets were internal, but did not specify them. From the HSR the Centre did not receive any rewards, "the maximum that could happen is [to receive] a call from HSR telling us that we achieved the targets, only that", stated the Director. The same opinion was shared by the interviewed GP that explained: "Rewards? Nothing! The only existing reward is at a personal level". The chief administrative officer, when asked to give examples of rewards, said "… personal satisfaction, which is good! Of course a monetary compensation would help, but self-achievement is more important". On a different note, the Chief Nurse stated that simple acknowledgements were sufficient, which meant that intrinsic motivation was more important than extrinsic motivation.

According to the Director, the inexistence of an official reward system had negative consequences in terms of targets' achievement. All interviewees admitted lack of penalties for those who did not achieve the targets. However, in medical meetings all staff members were reminded of the targets to achieve, and under-performers were mentioned in order to improve. No praise was given to over-performers. In the administrative area, the chief administrative officer admitted that good performance was not treated differently from bad performance.

In sum, there was no evidence of the use of rewards in HC3. Consistent with this, no form of rewards was received from HSR. However, the discussion with interviewees provided some evidence that organisational participants experienced intrinsic rewards. All of this suggests that there is an unexplored potential for performance improvement from the use of performance rewards.

Information flows

Several information flows were visible at HC3. First, there was some information that circulated orally in the Centre. For example, patients' complaints were used as means of improving the procedures. The Director stated: "It is funny, but we learn much with our patients. They give us suggestions and we use them to improve". Additionally, when some procedure was not adequately executed, someone called the attention of the staff member. This practice was more usual among administrative staff. Second, there was a 'Procedures Manual', which contributed to information circulation all over the institution. According to the Director, this document defined what the priority healthcare areas were. Third, the existence of management meetings promoted the performance improvement. In management meetings issues were discussed in order to improve the level of performance of the Centre at all levels of the organisation. The GP interviewed believed these meetings were one of the most important ways of information sharing, because the objectives were transmitted to all different staff areas: doctors, nurses, and administrative personnel. Staff groups meetings were a practice in which each staff group share particularities of their work. The GP stated: "Any situation, which was not as good as we wanted, is discussed and shared in order to be an example not to follow". The Chief Nurse considered staff groups meetings very important for nurses as they discussed and shared some specific professional situations in order to improve. Staff groups meetings were also an usual procedure among administrative staff. Finally, information systems were used. The Doctor Help System (DHS) software, not generally used in HCs, helped doctors to monitor their performance and to share medical information about patients. The GP stated: "That [DHS software] gives another performance perspective, for example in terms of diagnosis and prescription". The SINUS – Information System for Health Units (*Sistema de Informação para Unidades de Saúde*) software was an important tool to give information about the performance of the Centre. This software was a generally-used software in HCs and could integrate the DHS software. Some HCs used information systems in a more efficient way than others. It seemed to be the case of HC3.

Discussion

Objectives. In HC3, as with HC1 and HC2, there seemed to be a conflict between stated objectives and what was done in practice. The Chief Nurse was the only interviewee in the Centre that defined prevention and health promotion as a key objective for the Centre, which can be considered uncommon if we consider the interviewees from the other Centres. The other HC3's interviewees did not mention the fact probably because they knew it was very difficult to implement those activities. Some of the reasons for these difficulties were lack of personnel and of other material resources.

In this Centre, all staff saw the patient as a customer that must be satisfied. It seemed to exist a NPM attitude before the patient, which is consistent with other Centre interviewees' opinion. The most important objective for this Centre was to provide the best care to patients. The way this objective was to be accomplished was through 'team

effort', as stated by the chief administrative officer and by "all staff members giving their best", as stated by the Director.

Strategies and plans. In HC3, there seemed to be lack of strategic thinking, especially regarding the link with HSR. The parent institution appeared to have failed in this task. In order to achieve the set objectives, the Centre probably devised its own strategies. The Activity Plan and the Activity Report were used in this Centre among medical staff. On a different note, administrative staff was not familiar with these management tools. However, the Petty Cash Fund Management Tool was prepared monthly by someone from administrative staff. The use of the SINUS software as a performance measurement tool appeared to be the case in HC3, in contrast with current practice among HCs. The most used features were booking appointments, invoicing, and receipts.

Targets. As targets defined by HSR were adapted by each HC, including HC3, the existence of Centre specific constraints would be difficult to rank HCs. However, these customized targets were important as they provided some motivation to enhance staff's performance.

Rewards. All staff members recognized there was no rewards/penalties system. Although there was no recognition in the form of rewards from HSR, the Director maintained there were some internal rewards, but was unwilling to specify them. This can be considered an exception to the existing "official" system. Additionally, all interviewees admitted there were no penalties for those who did not achieve the goals. However, according to the GP, doctors were called to the attention when something went wrong. The nurse and the chief administrative officer identified self-achievement as a sufficient reward for the good performance, but recognized that a reward system with monetary compensation could motivate personnel in a stronger way. In sum, there was intrinsic motivation, but not extrinsic motivation mechanisms at HC3.

Information flows. This Centre had several different forms of information flows. As with other Centres, most of information circulated orally in HC3. Meetings were also a very important way for the information sharing. HC3 was the only Centre out of the three studied that used patients' complaints as a source for information. It seemed that different ways of information flows in this Centre enable avoiding problems of lack of direction.

Merchant's (1998) framework

Provision of direction

The situation that existed in HC3 in a management level was similar to that existed in the other Centres. That is, each HC received its main orientations from HSR. Some management tools used by HSR to monitor HC's direction through two main areas:

medical and administrative / financial. Medical area was controlled through the Activity Plan and TB. Administrative / financial area was controlled through TB, Petty Cash Fund Management, and Budget of the HSR.

At the more operational level, HC3's Director stated that all staff members were acquainted of the objectives of the Centre. These objectives were translated into a plan, based on the guidelines of HSR and produced with voluntary contributions from all interested staff. Meetings were also an important way of transmitting the main orientations and of sharing organizational and planning issues. Doctors, nurses, and administrative staff had regular meetings. The internal regulation document was also used to communicate the objectives of the Centre.

Thus, all considered, the existing MCS at the management level seemed to be weak in providing direction. At the more operational level the MCS in place seemed to provide sufficient direction to all staff.

Provision of motivation

All interviewees of HC3 appeared to be very motivated to perform their roles. This was due to intrinsic motivation. The personal engagement with the profession was the main reason presented by the interviewees for their motivation. However, there were changes in the past, within the Centre, that caused some dissatisfaction among staff. Important functions were removed, such as team work in family planning. The Director was very frustrated, because after these events, HC3 had become a mere appointment centre. "This takes away our credibility", added the Director.

In spite of that event, doctors and nurses claimed to be motivated. The Chief Nurse stated: "They [nurses] are motivated; I give them reasons for being motivated. I give them training; I delegate them important functions". This enthusiasm was not shared by all staff members of the Centre. In the opinion of the chief of administrative officer, some administrative staff was not motivated, as they complained very often.

In sum, the existing MCS did not seem to provide enough motivation to staff, with the exception of nurses, who exhibited high level of intrinsic motivation. It seemed clear that no forms of extrinsic motivation were used, at least, the "official" ones.

Provision of abilities

HC3's medical staff seemed to be adequately prepared to perform their work. The younger nurses had many good ideas to improve the Centre's performance, as stated by the Chief Nurse. The Director and the GP considered continuous training as an important 'insurance policy' to ensure the efficiency of staff in their activities. In the opinion of the Director, GPs could be more efficient in their role if there was time to

share opinions with each other and to access to a library during working hours. “For me [i.e. in my view], the best training is during service”, stated the Director. The same opinion was shared by the interviewed GP. Both admitted the need of continuous training through regular meetings within the Centre or through medical conferences.

In administrative area there was an exceptional case of a switchboard operator that performed the role of an administrative by processing the Petty Cash Fund support documentation. However this was not the rule among staff. The chief administrative officer recognised that among administrative personnel there was some staff insufficiently prepared to perform public assistance duties. “They do not have specific training for that”, stated this interviewee.

Thus, the existing MCS did not offer a strong provision and development of abilities, particularly among administrative staff. Among medical staff, although the need for continuous training was sustained by the Director and the GP, this did not appear to seriously affect medical staff skills.

Discussion

In HC3 the discussion about overcoming control problems ought to have into consideration several types of controls (Merchant, 1998; Merchant and Van der Stede, 2003). This procedure is similar to what happened with the other two studied Centres.

The provision of direction and intrinsic motivation by the existing MCS seemed to be sufficient to all staff members of the Centre, since all were aware of the key objectives. However, there were some weaknesses in the links with HSR, resulting from lack of feedback. In the same vein, existing structures of MCS seemed do not provide nor extrinsic motivation neither development of abilities.

Empowerment, especially among medical staff, could be helpful in increasing motivation. As there were no “official” rewards, empowerment can lead to a more decisive intrinsic motivation. Specific training could be the solution to overcome the lack of abilities problem, particularly among administrative staff.

5. Conclusion

Drawing on the new public management and management control systems literatures, this study examines how MCS are designed and used by three primary health care systems. It also investigates the nature of the relationship between the Health Centres and the management of HSR (the parent institution). In this study, Otley’s (1999) and

Merchant's (1998) frameworks were used to describe, interpret, analyse and contrast the evidence collected from the three case studies.

The interviews and archival data offer evidence that suggests low consistency and coherence in performance management practices in these institutions, which appeared to affect performance. Hierarchical controls seemed to be very weak and accountability limited, leading to a lack of direction, low motivation and, in some circumstances to insufficient managerial abilities and skills. The performance management systems appeared to have a number of weaknesses, suggesting that there are various opportunities for improvement in performance in the studied organisations.

This study contributes to the public sector and management control systems literature in several forms. Firstly, it describes and provides insights as to how management control systems are used in the public sector health institutions, a sector with growing economic significance. Secondly, the study is one of the few field studies examining public Portuguese health care institutions. These institutions have been criticised over the years as being under-performers and over-spenders. The study sheds light into some of the potential factors explaining this chronic poor performance. Thirdly, the study integrates different frameworks into a single field study, providing a richer descriptions and more complete analyses of the evidence collected. It is also hoped that this research will lead to improvement in performance measurement and management practices and, ultimately, to improvements in the way health care organizations use their limited resources in the provision of services to the communities.

While effort was placed in minimising the shortcomings of this research study, it nevertheless suffers from a number of limitations. Firstly, most data collected through interviews to individuals in various positions, who may have been led to pursue their personal agendas as opposed to providing true and fair descriptions of the facts. Secondly, time constraints meant that the study was limited in length. A longitudinal case study approach would have contributed to a more thorough understanding of practices and forces at play in the studied institutions. Thirdly, the study focused in one health sub-region and as such is not generalisable beyond the studied organisations. However, the insights of the study are likely to be a good starting point when examining similar organisations. We believe, however, that these limitations do not invalidate the findings and contributions of this study.

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Appendix A – Interviews details

Enterviewees	*Institution*	*Date*	*Length (minutes)*	*Purpose*	*Media used*
Director	PHCC1	17/02/2005	60	Interview	Tape recorder
Doctor / GP	PHCC1	17/02/2005	15	Interview	Tape recorder
Nurse	PHCC1	17/02/2005	24	Interview	Tape recorder
Administrative	PHCC1	17/02/2005	63	Interview	Tape recorder
Average Professionals	PHCC1		40.5		
Patient 1	PHCC1	17/02/2005	3	Interview	Tape recorder
Patient 2	PHCC1	17/02/2005	3	Interview	Tape recorder
Patient 3	PHCC1	17/02/2005	6	Interview	Tape recorder
Patient 4	PHCC1	17/02/2005	4	Interview	Tape recorder
Patient 5	PHCC1	17/02/2005	3	Interview	Tape recorder
Average Patients	PHCC1		3.8		
Director	PHCC2	7/03/2005	24	Interview	Tape recorder
Doctor / GP	PHCC2	7/03/2005	53	Interview	Tape recorder
Nurse	PHCC2	7/03/2005	21	Interview	Tape recorder
Administrative	PHCC2	7/03/2005	26	Interview	Tape recorder
Average Professionals	PHCC2		31		
Patient 1	PHCC2	7/03/2005	3	Interview	Tape recorder
Patient 2	PHCC2	7/03/2005	12	Interview	Tape recorder
Patient 3	PHCC2	7/03/2005	4	Interview	Tape recorder
Patient 4	PHCC2	7/03/2005	4	Interview	Tape recorder
Patient 5	PHCC2	7/03/2005	4	Interview	Tape recorder
Average Patients	PHCC2		5.4		
Director and Doctor	PHCC3	9/03/2005	70	Preparation meeting	Researcher notes
Director	PHCC3	11/05/2005	50	Interview	Tape recorder
Doctor / GP	PHCC3	11/05/2005	43	Interview	Tape recorder
Nurse	PHCC3	11/05/2005	43	Interview	Tape recorder
Administrative	PHCC3	17/05/2005	21	Interview	Tape recorder
Average Professionals	PHCC3		39.25		
Patient 1	PHCC3	11/05/2005	7	Interview	Tape recorder
Patient 2	PHCC3	11/05/2005	17	Interview	Tape recorder
Patient 3	PHCC3	11/05/2005	3	Interview	Tape recorder
Patient 4	PHCC3	17/05/2005	4	Interview	Tape recorder
Patient 5	PHCC3	17/05/2005	3	Interview	Tape recorder
Average Patients	PHCC3		6.8		
Chief of Financial Division	HSR	22/03/2004	120	Interview	Researcher notes
	HSR	16/09/2004	120	Interview	Researcher notes
	HSR	20/01/2006	90	Interview	Researcher notes
Average Chief of Financial Division	HSR		110		
Assessor of Coordinator	HSR	23/09/2004	180	Interview	Researcher notes
	HSR	23/11/2004	30	Interview	Researcher notes
	HSR	7/12/2004	120	Interview	Researcher notes
	HSR	1/02/2005	60	Interview	Researcher notes
Average Assessor of Coordinator	HSR		97.5		
Coordinator	HSR	17/01/2005	30	Preparation meeting	Researcher notes
Superior Technician (2 staff)	HSR	24/04/2006	30	Phone interviews	Researcher notes

Content Table