Organizational Culture and Quality Management Practices in the Hospital Sector

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Abstract: Research in the healthcare sector is a particular relevant topic as a contribution to the development of patient care service improvement. This research focuses the identification and understanding of the organizational culture dimensions and its relation with the quality management practices in the hospital sector. A case-based research was implemented in two major public hospitals, with quantitative and qualitative methods, through multivariate and thematic analysis. Our findings allows us to postulate that the existence and intensity of a particular set of organizational culture dimensions was a catalyst factor of different realities in the implementation and development of the quality management systems in those hospitals. We believe that we were able to reach valid advice for practitioners, and also ensuring a contribution to knowledge, reinforcing the value of the contingency approach to quality management and taking relevant steps towards theory building about the links between organizational culture and quality management in the healthcare services, particularly in the hospital sector.

Keyword: Organizational Culture, Quality Management, Quality Management System, Healthcare.

1. INTRODUCTION

Research in healthcare has a particular relevance to advance the development and improvement in the provision of patient care and society in general. Along with the significant increase of life expectancy, with the broader scope of continuous care, the growing demand for outpatient services and the increasing role of the private sector, it is of the utmost importance to assure the effectiveness and efficiency of healthcare organizations.

Several authors have highlighted about the scarcity of quality management research over the practices, values, beliefs and assumptions that leverage (or constrain) the behaviors required for their successful implementation and development (Panuwatwanich 2017; Prajogo and McDermott 2005; Detert *et al.* 2003; Detert *et al.* 2000; Zeitz *et al.* 1997). The literature review also confirmed the lack of research in healthcare around interactions between quality and culture, in particular regarding the dimensions or organizational culture and the different patterns of usage of quality management practices (Davies *et al.* 2000; Huq and Martin 2000; Patyal and Koilakuntla 2018). As such, the study of quality management requires not only the understanding of organizational structure, processes, activities and good practices, but also which values, beliefs and assumptions that, translated into behaviors and actions, lead to customer service excellence, therefore highlighting the relevance of organizational culture research.

This study aims to explore and understand the organizational culture dimensions and their relation with quality management practices in healthcare, in particular, in the hospital sector. Besides the contribution to knowledge, we aim to reach valid conclusions and advice for practitioners, emphasizing the relevance of the medical team engagement, a continuous improvement process and a mind set of integrated quality across the organization, as the building blocks for the development of quality practices in the organization.

In this context, in our research problem we intend to identify the relations between organizational culture and the usage of quality management practices in the hospital sector, and to identify a set of organizational quality dimensions whose presence and intensity could be related with different patterns of quality management practices in the hospital sector.

On the relation between culture and quality management, we will consider the organizational culture dimensions as the independent variable, as stated in the research of Zeitz *et al*. (1997), Maull *et al*. (2001) and Prajogo and McDermott (2005). A case-based research was implemented in two major Portuguese public hospitals, identified as success stories regarding the implementation and effectiveness of their quality management systems. It becomes relevant to understand if the success is grounded in an identical context of organizational culture, or if there is a distinctive culture in each hospital. We analyzed

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differences in the dimensional structure of organizational culture within and between the two hospitals.

2. ORGANIZATIONAL CULTURE AND QUALITY MANAGEMENT

The formal introduction of culture into the field of organizational theory is generally credited to Pettigrew (1979:574), being conceptualized as a 'system of publicly and collectively accepted meanings operating for a given group at a given time'. Culture refers to the foundations of the organization, translated by the values, beliefs and assumptions of their employees (Smircich 1983, Denison 1996, Hofstede *et al.* 1990). This study is aligned with Smircich's (1983:347) perspective that 'culture is a root metaphor, something an organization is', that exists in the form of a social representation and a mind set, with a variety of manifestations (subcultures) at without organizational boundaries, that all managers and employees influence at an individual level. As stated, an interpretivist definition of organizational culture. Hofstede *et al*. (1990) postulate that in the study of organizational culture we shall focus on four elements: the symbols that represent the most superficial and visible part of culture, the words, gestures, figures or objects that have a particular meaning within a culture; heroes, persons who possess highly prized characteristics being recognized as role models; rituals, collective activities, usually without or with low direct business impact, but recognized as socially essential for the culture; and values, that represent the core of culture, connected with moral and ethical questions, that can be formally expressed, being part of employee development, even if unconscious and rarely discussed (Hofstede *et al.* 1990:291, adapted). One of the conceptual foundations of this research is the perspective of the organization as an integrated management system (Karapetrovic and Wilborn 1998), where objectives, resources, processes and planning, control and evaluation actions merge with the environment with focus on development and continuous improvement. This concept is extensively explored by different quality management models and standards (e.g. ISO9000, Total Quality, Excellence Model) and its core guidance reflects the relevance of high levels of cooperation and connection with the required organizational change, as a prerequisite for organizational performance. The recognition of the business value of the quality management systems (QMS) is a result of the work of Deming, Juran, Crosby and Ishikawa (Kruger 2001), among others, and their contribution to the definition of "good practices" which subsequently led to the development of standards, certification processes and awards that recognize the effective application of the quality management principles (Evans and Lindsay 2008). However, numerous studies question the universal validity of the whole set of quality management practices (Reed *et al.* 1996, Dow *et al.* 1999, Sousa and Voss 2001), i.e. that the implementation of all practices associated with quality management is nonessential to assure the success (Dow *et al.* 1999), and that a more reasoned approach would be the deployment of 'best in class practice, linking the best practice to the context' (Sousa and Voss 2001:400).

3. QUALITY MANAGEMENT IN HEALTHCARE

Healthcare organizations are complex structures, where management, technologies, human resources and patient care are processes that require continuous interaction. Furthermore, external factors such as the evolution of the demand of healthcare services, the development of the primary care network, the exponential growth of medical insurances and the governmental policies, among others, drive the need for a system that allows a concept of integrated quality in the provision of healthcare services.

The success cases in hospitals are linked to a strong component of planning and strategy in the implementation and development of the quality management system (QMS). This goes through the recognition of the impact, and the development of relevant efforts in the organizational culture space (Ruiz 2004, Huq 2005, Jordan *et al.* 2015, Patyal and Koilakuntla 2018), a clear investment in the relation between the different QMS activities, the requirement of a robust contribution in leadership development at all management levels, the definition of control processes affecting all the hospital functions (operational and support), and - fundamental - the implementation of a multidisciplinary system covering the identification, development and assessment of the patient treatment processes, with a significant impact on the quality of care.

4. THE RELATION BETWEEN ORGANIZATIONAL CULTURE AND QUALITY MANAGEMENT

The relevance of organizational culture in quality management is widely supported by research (Klein *et al.* 1995; Chang and Wiebe 1996; Mallack *et al.* 1997; Zeitz *et al.* 1997; Tata and Prasad 1998; Davies *et al.* 2000; Detert *et al.* 2000 and 2003; Huq and Martin

2000; Pool 2000; Sousa-Poza *et al.* 2001; Maull *et al.* 2001; Sureshchandar *et al.* 2001; Prasad and Tata 2003; Ambroz 2004; Prajogo and McDermott 2005; Jung *et al.* 2008).

Maull *et al.* (2001) have developed a model that allows an organizational culture assessment, as a primary task before the implementation of a QMS. Their model (and our own research) builds on the assumption that culture is a dependent variable, an objective but unique phenomenon. Identifying themselves with the interpretivist approach of organizational culture, Maull's research is supported by the work of Hofstede *et al.* (1990) and their four foundational elements: values, rituals, heroes and symbols, organising them around four elements of cultural variables: people, customers, organization and culture (employee individual level). By identifying different subcultures within different organizational groups, they have also contributed to minimize the idea of a unique culture, reinforcing the perspective of context dependency and 'the inadequacy of programs targeting a one size fits all model of quality management' (Maull *et al.* 2001:308; Willis *et al*. 2014). Additionally, as stated in Detert *et al.* (2000) research, in the context of their qualitative analysis of organizational culture literature, a small number of dimensions are enough and adequate to represent the majority of the organizational culture constructs. Some elements of their investigation were fundamental for our research: first, the employment of a reduced number of cultural variables to a small set of dimensions (eight, as a reference). Secondly, the authors identify a significant risk associated with the usage of survey tools based upon models with predefined culture typologies (for example, the CVF - Competing Values Framework or the OCP - Organizational Culture Profile), because nonetheless able to provide relevant information, "are bound by the aspects of culture covered by the instrument" (Detert *et al.* 2000:853), and this gave us additional rationale for not using the referred tools.

This contingency perspective on organizational culture, associated with a similar approach to context dependency around quality management practices (Sousa and Voss 2002) is very impactful for the overall added value of the current research.

5. METHODOLOGY

The research methodology is built around an approach of multiple case studies. We performed several data collection sources regarding the investigation of the organizational context and the phenomenon, such as document analysis, semi-structured interviews and the deployment of a questionnaire survey. The selection of the two organizations as case studies (hereinafter designated Hospital A and Hospital B) was a result of the application of the following criteria: public central hospitals; external recognition of their quality management practices (I*SO 9000 / King's Fund / Joint Commission International Accreditation Standards for Hospitals*); and a minimum of three years of QMS maturity.

6. DATA COLLECTION

The qualitative component of the study sought to identify the organizational culture dimensions through the deployment of a survey questionnaire. This method has a certain number of attributes which make it especially useful for organizational culture research (Ashkanasy *et al*. 2000, Hofstede *et al*. 1990, Rouseau 1990) and for providing data suitable for multivariate statistical analysis. After an extensive review of available research tools, adapting an existing questionnaire to healthcare seemed the proper option, namely the Maull *et al*. (2001) organizational culture survey, with the adequate tailoring of context and terminology.

The collection of qualitative data was supported by semi-structured interviews, focused on critical management roles (from operational to enabling functions). Hence, we sought to understand the interviewees' perspective, using this to inform the identification of organizational practices connected with the implementation and development of their quality management system. A list of preselected practices was identified from the most relevant studies in the fields of quality management and healthcare quality management (Hackman and Wageman 1995; Huq 1996; Zeitz *et al*. 1997; Sureshchandar 2001; Lakhal *et al*. 2006; Baldrige National Quality Program - Health Care Criteria for Performance Excellence 2007).

The population of interest consisted in the staff of both hospitals, regardless of their role and other demographic characteristics. A random sampling method as applied and 630 questionnaires were sent, being 280 for Hospital A and 350 for Hospital B. We received 220 questionnaires (106 from Hospital A and 114 from Hospital B), i.e. a response rate of 38% and 33%, respectively. A total of ten semi-structured interviews were conducted.

7. FINDINGS

The analysis of the data is organized accordingly to the essential elements of the research question. First, data were structured according the organizational culture and the cultural dimensions of each hospital. Subsequently, within the same domain, we have analysed the intensity of those dimensions for the different functional groups of each hospital. Finally, we performed a comparison between hospitals, by professional group, searching for similarities and differences between the two cases. The analysis of data from quality management practices focused on the explanation of their development level per hospital and, consequently, with the presentation of the results about similarities and differences among them.

7.1. Organizational Culture Dimensions

The evaluation of the organizational culture dimensions was achieved through multivariate analysis, namely factor analysis, identified by Detert *et al*. (2003) as a fundamental method in the research of organizational culture and quality management systems. Following their research approach, we have targeted the aggregation of the organizational culture variables into eight factors, using the Principal Axis Factoring model, as defined by Tabachnick and Fidell (2001). The rationale for factor analysis was assured through the application of Sharma's (1996) three measures: observation of the correlation matrix, observation of the partial correlations (near zero) and the Kaiser-Meyer-Olkin measure to access the extent to which of the variables belong together, with a 'meritorious' KMO=0.847. In order to investigate if the behavior of the culture variables was affected by a specific organization (hospital), we performed an analysis of variance (ANOVA). For the vast majority of the factors, the magnitude of the differences was too small to be relevant, except for factors 3 and 4, with a statistical significance lower than the reference (0.05). Additionally, the partial eta square allow us to verify the proportion of total variance between the two groups (Sharma 1996:349). The PES=0.01 also suggests that the variable *organization* (Hospital A or B) should not be accounted for differences between the groups. The application of factor analysis revealed eight factors that together explain 49.3% of the total variance (60% of the variables with loadings above 0.50, the remaining between 0.35 e 0.49):

Factor 1 - Innovation Oriented; Factor 2 - Planning and Flexibility; Factor 3 - Continuous Improvement; Factor 4 - Change Oriented; Factor 5 - Customer Focus and Capabilities; Factor 6 – Communication; Factor 7 - Motivation and Engagement; Factor 8 - Organizational System.

The Cronbach Alpha was calculated to analyze internal consistency for the two hospitals, according to Van de Vijver and Leung (1997): six factors have alpha ≥ 0.7, with four of them ≥ 0.9, what translates a very good internal consistency (Nunnally and Bernstein 1994). Factor 4 "Change oriented" and Factor 8 - "Organizational system" were eliminated due to alpha < 0.6. The analysis of differences between the two hospitals shows that there were no significant differences ($p>0.05$) for seven of the eight factors (only factor 2 was identified as relevant).

However, given that the internal consistency was high for the two hospitals (>0.8), we have decided not to eliminate this factor from the set of organizational culture dimensions. Additionally, the existence of homoscedasticity (homogeneity of variance) was verified through the application of the Levene's test, and we cannot reject the null hypothesis for equality of k variances. To verify the multivariate normality, we have decided for a Kolmogorov-Smirnov test (Lilliefors corrected) - for Hospital A we were able to verify a significance level greater than 0.05 for all the variables except one, similar to the situation in Hospital B. These results suggest that a normal distribution could be expected. Finally, correlation analysis was deployed for all the main variables, for hospital A and hospital B, independently, and hospitals A+B. The results indicate that there is a strong association between the variables that represent the organizational culture dimensions, with most of the correlation coefficients values above 0.7.

7.2. Results Per Hospital

We have performed a statistical analysis of the previously identified organizational culture variables (for each hospital) to understand if there were significant differences between professional groups (Krogstad *et al.* 2006; Aiken *et al.* 2002; Adams and Bond 2000). The lack of significant differences between professional groups would allow to infer the presence of a strong culture regarding that variable.

For Hospital A, the analysis of the intensity of the organizational culture dimensions was performed for each of the hospital eight professional groups. The ANOVA test results suggest that there is sufficiently

evidence to consider the existence of a strong culture, as there were no significant differences in any of the cultural dimensions among Hospital A professional groups. The percentage of variance that could be attributed to the latter varies between 7.4% for the variable v_inov and 11.1% for the variable v_comuni (eta-squared analysis). We have performed an identical analysis for Hospital B. The ANOVA test results suggest that there were significant differences between the professional level, with the exception of 'Planning and Flexibility' and 'Continuous Improvement'. Therefore we cannot postulate a strong culture across the organization.

7.3. Comparison between Hospitals

Considering global results, we performed a comparison of the two hospitals professional groups, aiming the identification of similarities and differences between cases. Comparing the organizational culture variables results in the two hospitals, there is only evidence of a significant difference in variable "v_melhor". We have tried to confirm if this difference could be explained by demographic variables in which the two hospitals do not have an identical distribution. In this context, an analysis of variance between hospitals was deployed, including each demographic variable as concomitant (Van de Vijver and Leung 1997) to understand if they would have any influence with the variable being studied, using Tests of Between-Subjects Effects (type III Sum of Squares), and finding that the age distribution between hospitals ($F=3.342$, $p=0.018$) had influence in the variable v_melhor.

7.4. Quality Management Practices

The quality management practices have been subject to extensive study, as a specific field of research and at the light of their relation with organizational culture (Zeitz *et al*. 1997; Dow *et al.* 1999; Sila and Ebrahimpour 2002; Sousa and Voss 2002; Lagrosen and Lagrosen 2003; Prajogo and McDermott 2005; Lakhal *et al*. 2006).

We have taken the work of Lakhal *et al*. (2006) as a starting point for our research in what concerns the identification of a set of quality management practices, to ensure the efficiency of the qualitative data. Using the procedures postulated by Miles and Huberman (1994), we were able to identify the existing practices and their individual level of development. After the classification and codification of interview data, the generation of meaning was achieved through the identification of themes and their connections. Finally, a diagrammatic representation of data was prepared in the format of a "Partially Ordered Meta Matrix" (Miles and Huberman 1994: 177-180), for an effective comparison between cases.

The following table summarizes the results and the differences between hospitals, for the different quality management practices

8. DISCUSSION

Hospital A stands out in the quality management practices "Top management commitment and support", "Employee training", "Employee participation", and

Table 1: Quality Management Practices - development level between hospitals

	Development Level (between hospitals)	
Quality Management Practices	**Hospital A**	**Hospital B**
Top management commitment and support	↑	✓
Organization for quality	✓	↑
Employee training	↑	✓
Employee participation	↑	✓
Supplier quality management	---	---
Customer focus	↑	✓
Continuous support	✓	✓
Quality system improvement	✓	↑
Information and analysis	✓	✓
Statistical quality techniques use	---	---

Legend: ✓The practice exists in this organization; an identical symbol in both hospitals refers to a similar level of development.
↑The quality management practice stand out in a particular hospital.
---No evidences of a relevant level of development for this practice.

"Customer focus". The analysis of the qualitative data allow us to posit about an increased proximity between the members of the medical and nursing teams, and a more active engagement with the QMS, as well as a more effective and efficient communication between top management and operations, and their inspirational role around personal development, which is reinforced by the cultural dimensions "Continuous Improvement", "Communication" and "Motivation and engagement". The qualitative data also highlights that the investment in continuous training is more noticeable, being recognized as such by the medical team, and by the presence of 'behavioral training' for professional groups far less recognized as eligible for this type of initiatives, such as healthcare assistants. Alongside, it is possible to perceive a determined encouragement around employee participation, including with the medical teams, with a robust sense of self-esteem, belonging and by volunteering to participate. Lastly, the data also suggests a sizeable investment in patient on boarding and follow-up care (for patients and their families) - formally recognized by them as an excellent added value – for which the "Patient Companion Program" and the "Integrated Patient Path" are excellent examples.

After the analysis of the integrated results, we postulate that the practices with a higher level of development in Hospital A, namely "Top management commitment and support" and "Employee participation" are firmly assured through the continued reinforcement of collaborative values by the management (even the Board has active participation in the "Quality Group") and, in particular, to the recurrent attitudes and behaviors around engagement and added value of the QMS, led by the quality and management functions with the medical teams. We assert that these circumstances, over time, were responsible for the development of a mind set of acceptance, recognition and involvement with the QMS, for all the organization and in particular, for the medical teams.

Hospital B stands out in the quality management practices "Organization for quality" and "Quality system improvement". There was a remarkable investment in accreditation and certification, evident in the vast number of services certified by the ISO9000 standard. The data have confirmed a relevant and continued effort in the design and development of formal processes, standardization of practices, operational and support guidelines, the establishment of a more comprehensive link between the clinical audit and the clinical governance process, an active search of improvement processes, with Lean Management projects with the Kaizen Institute, all of this translating a clear evolution of the QMS. We posit that this option contributed for an extended development of organizational performance monitoring mechanisms, with the coexistence of several metrics and estimation systems, including international health metrics for hospitals, and with a relevant study of clinical episodes that have led to an improved cause-effect analysis.

After the analysis of the integrated results, we postulate that the practices with a higher level of development in Hospital B, arise in the context of a deliberate decision to create compliance in specialised technical domains, within a vertical approach of the QMS (by service/unit). Hence, they were able to leverage each unit's capabilities to ensure the achievement of their "internal quality requirements" from the view point of providing patient care or services to the internal customer. This type of approach has inherent advantages regarding the functional perspective of each unit and accounts for a triad of rules/reflection/principles, focused in risk mitigation and increased patient safety.

On the side of organizational culture, we believe that we have evidences to posit that the establishment of a mind set of compliance had a good fit with the natural tendency from physicians to drive their motivation, business relationships and authority mostly within their professional group, medical specialism and business unit, certainly in proximity with the perspective of the quality of the clinical decision-making process (in line with the conclusions of the previously referred studies).

However, the interviews qualitative data analysis also show that a subgroup of physicians understands this level of formality as something with a minimal added value, and even with the excellent available information systems, communicating and gathering information from other units is difficult. We postulate that this may be more dependent upon the cultural values of cooperation and involvement than the technological and procedural infrastructure.

9. CONCLUSION

Considering the research problem in the context of the case studies, we have concluded that the 'Organization' does not have a constraining effect over the organizational culture dimensions. However, while in Hospital A we have a strong culture - the

organizational values are shared with high intensity and scope across all professional groups - in Hospital B this does not happen. When we analyse the intensity across hospitals and professional groups, and if we exclude the differences caused by the sample characteristics, the relevant difference around intensity of the organizational culture variables across hospitals shall be allocated to the physicians professional group, namely in the dimensions 'Innovation Oriented', 'Customer Focus and Capabilities', and 'Communication'. Therefore, while in hospital A this professional group reflects a set of values, beliefs and assumptions which brings it closer to the remaining groups, in particular nurses, traditionally more involved and motivated around pan organizational initiatives, in hospital B, the data allow us to posit the existence of a differentiated set of values and beliefs for the former, as stated by Huq and Martin (2000) and Davies *et al.* (2000). As we have expanded the knowledge around the researched organizations, especially in the context of the qualitative analysis of quality management, we postulate that there are strong evidences that the differences in practices between hospitals are at least partially explained by the investment in the establishment of horizontal coordination structures, connecting quality management and the operational services (e.g. the Clinical Administration Office). In hospital A, the medical leadership had an exceptional role in the engagement of the Clinical Directors and their medical teams around quality management, and in building a culture of excellence in patient service that throughout the years become a building block for behaviors and attitudes. These evidences are aligned with additional research in the relation between culture and quality in healthcare (Huq e Martin 2000), and as stated by Sousa (2010: 24), 'the healthcare professionals usually portray quality in terms of attributes and outcomes of the patient care services and their effectiveness'. Equally relevant was the advantage of achieving dissemination of the quality treatment excellence mind set, leveraged through years of clinical audits, to a vision of excellence in integrated patient services. We believe that there was an indisputable merit of the team's responsible for this dynamic being that, combining the medical capabilities ("being a physician") with a high awareness and belief in the quality philosophy, they were able to cascade the values and embed them in the medical team, in accordance with Davies *et al.* (2000) and Huq and Martin's (2000) research.

It is highly probable that with the levels of awareness, engagement and common ground that were able to be built around the medical teams regarding the added value of the QMS, we can assure an integrated quality approach upstream and downstream the clinical practice, as stated in Mannion *et al.* (2008) research. The reinforcement of this values over time, their longitudinal impact and continued demonstration of value for the patient service can lead to change in employees' mind sets and consequently to changes in their personal values, beliefs and assumptions, in alignment with the theoretical approach to organizational culture that we have identified as a foundation for this research - that 'culture is a root metaphor, something an organization is', that exists in the form of a social representation and a mind set, and whose change implies a transformational process in the individual values of each team member (Smircich 1983), in the dependency of a specific organizational context (Mannion *et al.* 2008).

Furthermore, as the results from hospital B showed, the design and implementation of the QMS in a more formal way shall provide a good alignment between the more 'traditional' (yet not possible to generalize) values of the physicians professional group, a wider distance from a horizontal view of the organization and the fundamental inter-unit cooperation. But this approach, potentially advantageous from a short-term and compliance perspective, will not be as successful in a context of continuous improvement, service excellence and integrated quality in patient service delivery.

Based on results and conclusions, we believe that we have made a contribution to research knowledge, namely on the understanding of the relation between organizational quality and quality management, building on the theory that positions quality management as a set or organizational practices and not "a specific culture". More particularly, to the contingency theory in the fields of quality management (Sousa and Voss 2002), organizational culture in healthcare (Mannion *et al.* 2008), and the relation between organizational culture and quality management, by identifying specific cultural settings in the hospital sector, highlighting the relevance of a pluralistic view of the organization and providing answers to issues and recommendations in this research field (Detert *et al.* 2000). We believe that there is a good consistency around both the integrated and per organization results, therefore we postulate the existence of good psychometric properties for six organizational culture dimensions: Innovation Oriented, Planning and Flexibility, Continuous Improvement, Customer Focus and Capabilities, Communication, and

Motivation and Engagement. Consequently, in what pertains to the organizations in this study, we believe there are strong evidences that the referred dimensions represent a significant contribution to support practitioners in their activities of planning, implementation and continuous development of quality management systems. Future research might confirm if this could be generalized to a larger population in the hospital sector.

In the context of our research problem, we posit a relation between the scope and intensity of the organizational culture dimensions and the set of quality management practices focused in the customer and human resources, that we were able to identify as critical in Hospital A, namely "Top management commitment and support", "Employee training", "Employee participation", and "Customer focus". Additionally, we believe that the absence of such a relevant relation in Hospital B, led to a stronger focus in the formal approach of the QMS, mirrored in a wider usage of the practices "Organization for quality" and "Quality system improvement".

Although the two hospitals are success cases in the implementation of their QMS, they can both take practical benefits from this research. Firstly, reinforcing the awareness and engagement of the medical teams would be an advantage on a long term perspective, searching for the generation of common values, that might led to a strong culture, organization wide. Additionally, accreditation and certification are processes which closes on itself and the search for QMS evolution (new standards, models, etc) will also be useful to induce a flow of continuous improvement. Lastly, taking advantage from the mutual influence between organizational culture and quality management, could also leverage the contribution of these practices for a mind set of integrated quality, where cooperation, real operational change and sharing successes may well be translated into a wider public recognition, a better institutional image and a motivational factor for individuals and groups, critical elements for the development of the quality management system. Ultimately, the outcomes will lead to the quality of patient services, a primary goal of the studied organizations.

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