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Assessing the interaction between Leadership and Management Competencies and Health Services Accreditation

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“Não sou nada.

Nunca serei nada.

Não posso querer ser nada.

À parte disso, tenho em mim todos os sonhos do mundo.”

Tabacaria. Álvaro de Campos (Fernando Pessoa), 1928.

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Abstract

The healthcare environment is complex, subjected to many changes, and a variety of factors have an impact on the performance of individuals, institutions and organizations in this industry. Because of its complexity, lately there has been a shift in the focus of the literature on healthcare management and organizational performance from a task and profession-oriented perspective to a competency-based one. The accreditation of healthcare services is present all over the world and is regarded by governments, organizations, patients and the general public as a certificate of quality, efficiency and performance. Despite its importance, there are no studies in the literature directed specifically at identifying which competencies drive the achievement of accredited status and support the process leading to accreditation certification. The objectives of this study are to assess Leadership and Management Competencies from the point of view of healthcare managers from accredited institutions and identify their influence on achieving accredited status and to assess if the accreditation process is linked to the improvement and acquirement of competencies. The Global Healthcare Management Competency Directory, which is supported by a variety of international Healthcare Management societies and organizations was used as a tool for the interviews. Results showed that 72 out of 80 of the competencies listed were considered supportive by more than 80% of the participants and that 71,42% have agreed the accreditation process facilitates the improvement and acquirement of competencies in at least one domain. Results also suggest that different competencies are needed according to an individual´s position in the organization. Accreditation seems to be one of the goals that mobilize organizations toward a change process and as a complex intervention mobilize various competencies and is also associated with competency learning, acquirement and improvement.

Key Words: Competencies, Healthcare Management, Accreditation, Performance

JEL Classification: I1-Health, Y40-Dissertations (unclassified)

Resumo

O Sistema de saúde é complexo, sujeito a várias mudanças e múltiplos fatores têm impacto na performance de indivíduos, instituições e organizações nessa indústria. Por causa da sua complexidade, nos últimos anos houve uma mudança do foco da literatura em gestão de saúde e performance organizacional de uma perspectiva orientada por tarefas para uma focada em competências. A acreditação de serviços de saúde está presente em todo o mundo e é considerada como um certificado de qualidade, eficiência e segurança por governos, organizações, pacientes e o público em geral. Apesar de sua importância, não há estudos na literatura dirigidos especificamente a identificar quais competências influenciam a conquista da acreditação e que auxiliam o processo que leva a certificação. Os objetivos desse estudo são olhar as competências de lideranças e gestão através do ponto de vista dos gestores de saúde de instituições acreditadas, identificar sua influência em atingir a acreditação e observar se existe o desenvolvimento e aquisição de competências como consequência do processo de acreditação. O *Global Healthcare Management Competency Directory*, que é endossado por várias sociedades e associações de executivos de saúde mundialmente, foi utilizado para a condução das entrevistas. Os resultados demonstraram que 72 entre 80 das competências listadas foram consideradas necessárias por mais de 80% dos entrevistados e 71,42% concordam que o processo de acreditação leva a aquisição e aperfeiçoamento de competências em pelo menos um domínio. Os resultados sugerem que diferentes competências são necessárias de acordo com a posição do gestor na instituição. A acreditação parece ser um dos objetivos que mobilizam organizações para um processo de mudança e, como exemplo de intervenção complexa, mobiliza diferentes competências e é associado com aprendizado de novas competências e aperfeiçoamento de competências já presentes.

Palavras Chaves: Competências, Gestão de Saúde, Acreditação, Performance

Table of Content

List of Figures

List of Tables

1-Introduction

The scope of this study is to explore how leadership and management competencies may have an impact on health services accreditation achievement in the view of healthcare managers from accredited institutions. In this first chapter, general concepts are introduced, and the research questions presented. In the second part, the literature review, a more comprehensive analysis of the theme and the research basis will be provided in topics for better understanding. The third chapter presents the methodology and in chapters four and five the results are analyzed and discussed. Lastly, study implications will be outlined, limitations identified, and suggestions for further research and applicability proposed in chapters five, six and seven.

1.1.Health Services Accreditation as a driver of change and performance in the healthcare context

Accreditation involves the certification of a program, service, organization, institution or agency by an authorized external agency or body to assess performance in relation to established standards, and involves multiple means such peer review interviews by surveyors, document and process auditing, checking of equipment and facilities and weighing of key representative clinical and organizational data (Greenfield 2009; Lovern, 2000). Standards are revised and raised over time by the agencies and improvement gradients are embedded. (ACHS, 2002, IsQua, 2019). Accreditation is a worldwide used practice in healthcare institutions. In Brazil alone as of 2019, there are 850 health institutions accredited by Organização Nacional de Acreditação (ONA, 2019 a), 43 accredited by Qmentum International (Accreditation Canada, 2019 a) and 63 accredited by Joint Commission International (JCI, 2019 a).

Accreditation by certified agencies is considered in the healthcare medium as a certificate of quality assurance, organizations receive public recognition of their status, and is regarded as a predictor of clinical and organizational effectiveness by founders, institutions, patients, governmental agencies and the public (Braithwaite, 2010), and can also be viewed as a source of legitimacy by healthcare organizations. (Jaafaripooyan, 2011). Walker (2009) considers that accreditation distinguishes how a service is compared to another in the same industry or service sector, which can be viewed as a source of

competitive advantage and perceived value. In some countries, such as France, Italy, Spain, Denmark, accreditation or public health services certification is required by the government, while in others, such as Brazil and in the United States it generates benefits and increments of financial incentives in negotiations with payers as health insurance companies. (ANS, 2019; JCI, 2019 b).

The process leading to accreditation is longitudinal and uses an incremental approach that is linked to improvement and establishment of learning cycles by institutions throughout the process, leading to modification of systems, processes and practices, and has an impact on management (Greenfield, 2019). Some of the perceived changes in performance outcomes can be seem regarding healthcare care processes and organizational systems, healthcare outcomes, continuous compliance with accreditation standards, ongoing improvement of quality and safety, and clinical integration between different areas (Pomey, 2010; Jaafaripooyan, 2011; Greenfield, 2019).

When we talk about accreditation, one must consider that the healthcare context is a complex and broad environment with many variables (Braithwait, 2010) and various factors may weight in when considering performance and outcomes, among them are leadership, organizational culture and climate (Health Foundation, 2004). Healthcare executives, as globalization expands, must be able to manage effectively with different variables that cross boundaries (Evashwick, 2019).

Throughout the years the importance of leadership and leadership expertise in the healthcare industry and on performance of organizations have been established o. However, there has been a shift in the literature recently, using a competence-based approach of leadership and management in detriment of a professional-based approach. This is due because of the complexity of the healthcare system which has different requirements and challenges arising constantly. A rigid professional-based and hierarchical approach may be simplistic and not able to correspond to modern expectations on healthcare leadership (Pihlainen,2016). The same author points out that a context dependent approach to competencies has also been utilized in the literature lately, where competencies links performance to the enabling of adjustments, adaptability and flexibility to different contexts and settings. Various studies explore the relationship between healthcare leader´s competencies and performance and effectiveness on organizations, but despite accreditation being an integral part of the health system

worldwide, there are few published studies considering the perceived impact of leadership and management competencies in the accreditation process. In some studies, accreditation has been found to have a direct relationship with competent leadership, professional development, improved negotiation skills, greater organizational leadership, continuous learning, and development of individual professional characteristics (Peterson, 2003; Dickison, 2006; Greenfield, 2008; Braithwaite, 2010; Hincliff ,2014; Yan, 2015; Desveaux, 2017).

So far there has been no published study that assesses which leadership and management competencies have an impact for healthcare managers and leaders to drive their institutions to achieve accreditation, or if and what competencies may be acquired or improved enabled by the accreditation process, what leads to this study objectives and questions.

1.2-Objectives and Research Questions

The overall objective of this dissertation is to shed light upon and identify the influence, use, development, and necessity of different competencies by healthcare executives, managers and leaders during the accreditation process for the organizations and systems they are part of to be driven during the accreditation process to achieve final accredited status.

The Global Healthcare Management Competency Directory (GD) will be used to identify the competencies since it is a specific tool that has been validated by several societies and organizations in the healthcare business world (IHF, 2015 a).

The proposed questions to be answered by this dissertation are the following:

1. Throughout the accreditation process, in the executive, manager and leader point of view, what competencies were used or were necessary to achieve accredited status?

2. In the executive, manager, leader point of view, did the accreditation process lead to the personal improvement of competencies or the acquirement of new ones?

2-Literature Review

2.1- The importance of management in the performance of health services

The healthcare context is a complex and broad environment with many variables that directly affect changes, such as case complexity, education, information systems, communication, and others (Braithwait, 2010) and various factors may weight in when considering performance and outcomes, among them are leadership, organizational culture and climate (Health Foundation, 2004). Healthcare executives, as globalization expands, must be able to manage effectively with different variables that cross boundaries (Evashwick, 2019**).** Drucker (2002) considers that health managers need to deal with a market influenced by social factors and complex politics at local and global levels, scarcity of resources and health professionals, deal directly with high expectations of patients, investors, and governments, undergo restrictive laws and regulations, and requirements with respect to financial performance, care and quality; as well as philosophical and emotional issues related illness and death. This scenario, coupled with the need for the existence of measurable outcomes and the adjustment of medical school curricula and health management schools to adapt to market challenges, lead to point where healthcare management tends to be based in evidence and a competence approach is needed (Kovner, 2006).

According to the report of the European Observatory on Health System and Policies (2009), health systems of various kinds, whether private, public, financed by insurance or not, have struggled to maintain sustainability. Globally, the health costs have increased and keeping finances stable in face of increased expenses caused by the speed of technological innovation, population growth, and aging, and customer expectations have been a challenge in virtually all health systems (Lega, 2013). A systematic review of the literature conducted by the same author, demonstrated that the performance of health systems is correlated to management practices, leadership, cultural attributes associated with values in management and management style. It is important to notice that in healthcare management performance is linked not only to financial and operational indicators, but to clinical and patient outcomes, and to the promotion of health in different spheres, which are the core business of healthcare. This adds to the complexity of measuring performance of healthcare managers and to the determination of which

competencies are in different tasks and contexts. The managerial capacity seems to be even more critical in low-income situations, where the efficient use of resources becomes extremely necessary and investments on capacitation and managerial competencies can be considered strategic (Bradley, 2015). However, many low and middle-income countries have no formal training programs in Healthcare management or professional associations to help define competencies or standards for the profession (IHF, 2015 a).

The differences in management can be seen even between developed countries and in institutions from a specific country. In a study conducted in 1200 hospitals distributed in seven different countries in Europe and America, the impact of management in health systems can be seen (Dorgan, 2010). A score system was created for the evaluation of hospital management practices in 20 dimensions and the results confirm the importance of management practices. A big difference in management practices between different countries and within the same country (Figure 1) was found, and these practices were positively correlated with better care, clinical and financial outcomes.

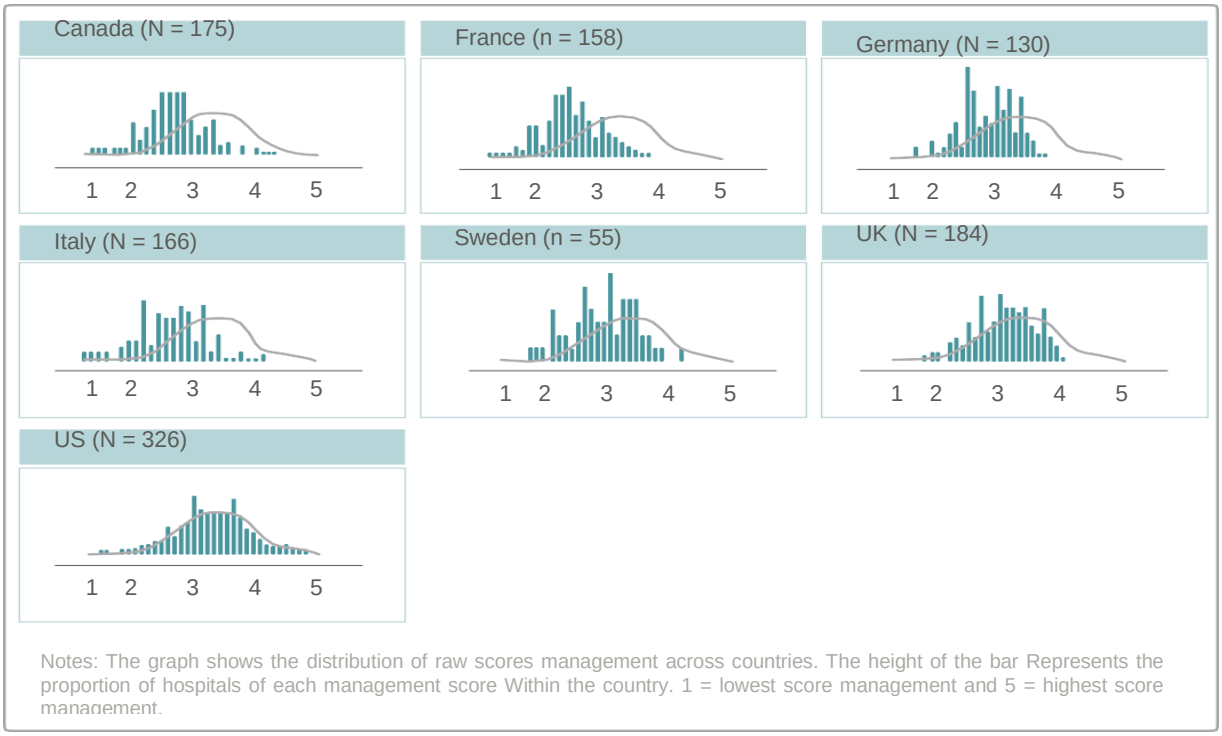

Figure 1- Score differences between countries and within countries. Reproduced from Dorgan (2010, p.12)

Some research articles have identified that leadership competencies have implications and correlate to performance and organizational outcomes in healthcare. Xirasagar (2005) associated leadership with better effectiveness and performance on clinical goals. Shipton (2008), in a study of 86 hospitals in the UK, found that leadership was significantly associated with better performance on patient complaints, and rating agencies scores. Individual leadership was also associated with better performance across all levels in healthcare organizations (O´Reilly, 2010). Ingela (2014), found a positive correlation between collaborative leadership and all measured outcomes. In a study Tsai (2015) conducted in 1.000 hospitals in the USA and UK found that management practices lead to better outcomes. A study conducted with over 700 global chiefs of human resources officers revealed that the most important business skill needed to achieve goals was developing future leaders (Cumberland, 2016). A very recent study by Fetene (2019) found that management was related to better indicator performance.

In a longitudinal study conducted in Africa for 3 years during a hospital workers strike, 92% of respondents said the cause for them to strike was poor and ineffective healthcare management and leadership (Oleribe, 2016), showing that poor practices have a deleterious effect.

It is important to note that leadership and management are complementary yet distinctive, but necessary for success in complex environments such as healthcare (Kotter, 2000). One can say that managers may not be leaders and leaders may not be managers (Bass, 1990 apud Algahatani, 2014). This is due to the fact that management is commonly linked to task-oriented functions such as budgeting, planning, organizing and dealing with routine complexity whereas leadership relates to skills or influencing relationship with a focus on motivation and inspiration, sharing of vision, and dealing with change (Kotter, 2000; Algahatani, 2014). Optimal efficiency is reached when they are combined in the same position (Lunenburg, 2011). For the purpose of this study, the terms are correlate, due to the complexity and specificity of the healthcare environment and the focus on high performance and accreditation, which demands a change in the status quo and mobilization of different levels of the organization.

2.2-The importance of identifying specific healthcare management and leadership competencies

McClelland (1973) was one of the first authors to write about competencies, concerned about the indiscriminate use of intelligence and aptitude tests, suggesting that competencies should be adopted as a paradigm of evaluation instead. The idea has been developing over the years when the market began to realize that positions were not static within organizations and should also respond quickly to market changes. This is because the competency model is more flexible, universal and can be directly linked to specific organizational strategy and changes.

It is interesting to notice that the definition of what competencies are is still the subject of discussion (Shipmann, 2000). Boyatzis (1982), states that competencies are intrinsic individual characteristics leading to superior performance when completing a task and specifies that performance and efficient action happens when individual competencies, work demands, and organizational environment are cohesive and adequate.

Spencer (1993), who created a popular competency model, the Iceberg theory, uses the iceberg as an analogy image tool, where a competency is divided into two parts or zones: skills and knowledge are "visible above the water" and can be modified more easily through training and experience, and a "submerged" part, made of individual intrinsic characteristics, including self-concept, motives, traits and values. The zones are dependable on each other, according to Spencer´s view, and while the surface zone has a more assertive influence on performance outputs and can be corrected or improved, the submerged zone has a long term influence on performance, and to achieve success and efficiency on a job, an individual must use the emerged and submerged parts in tune with each other, especially in complex environments such as the healthcare scenario.

Another very cited definition comes from Lucia and Lepsinger (1999), who state that:

> "*Competencies embodies a cluster of related knowledge, skills and attitudes that: 1- affect a major part of one´s job; 2- correlate with performance on the job; 3-can be measured against well-accepted standards, and 4-can be improved by training and development".* (Lucia &Lepsinger, 1999, p.72)

Markus (2005) groups publications on competencies into three distinct approaches: an Educational approach, originated from a developmental point of view and referred as a set of skills, knowledge, abilities and other characteristics, also known as the KSAO model (Harvey 1991), a Psychological approach, where competencies are linked to skilled behavior repertoires and where social roles and self -image affects performance, and a Business approach, that defines competencies as the collective learning of an organization.

When we consider core organizational competencies, the collective of competencies depends on individual competencies to be built and people must "*blend their functional expertise with those of others in new and interesting ways"* (Prahalad, 1994, p.5). In organizations, there is also a relationship between task performance, which is linked directly to different roles people have in organizations, contextual roles, and specific organizational objectives (Motowidlo, 1997). Different competencies predict performance in the same role by different professionals (Smith, 2003), but it is important to notice that an individual´s specific competency alone does not necessarily translate into excellent performance and that, speaking from an operational approach, competencies cover a broad range of KSAO´s that represent the ability to operate in complex situations and also behaviors that contain conscious and intentional decision making (Calhun, 2002).

The definition of which competencies are needed by the healthcare manager is a complex issue with many factors involved. Healthcare has a large plurality of organizational models with different focus (hospitals, clinics, diagnosis centers) varied payment methods, may be public, private, mixed or philanthropic organizations, work in prevention, acute and chronic care. Griffith (2000) pointed out that there was a need for agreement on identifying competencies that contribute to the success of healthcare organizations and managers. Robbins (2001), talks about the difficulty imposed by the fact that different types of competencies appear along the career of a manager and Goodman (2003) states that health management does not "own" this field of knowledge and it spans various fields and disciplines, making the task to determine specific competencies for this area even more complex.

Hernandez (2018) indicates that there is growing evidence that effective leadership and management are important to the success of healthcare organizations and that healthcare management associations such as The American College of Healthcare Executives and the National Center for Healthcare Leadership are pushing to identify common competencies needed by healthcare managers and others in leadership roles. Some Associations and commissions on Healthcare management education have already been using a competency approach, such as The Commission on Accreditation of Healthcare Education (CAHME) in the USA requires that a set of competencies must be adopted by accredited graduation programs in North America (CAHME, 2017), but the use of a competency-based curriculum is not yet widespread.

Many academic sectors and universities started from the beginning of the century to develop models of competencies and competency directories to base their curricula (Cherlin, 2006; Shewchuk, 2005; White, 2006) and competency frameworks were also developed by individual teams (Ross, 2002; Shewchuck, 2005; Clement, 2010; Garman 2004 and 2010, Kazley 2016).

One of the largest initiatives in the healthcare medium happened in 2001, when a large group of experts, academia, policymakers, and practitioners got together to assess the current leadership in the field of healthcare, and one of the main concerns was if the current leaders were being adequately prepared in academic programs and a new interest in competency-based education for leaders and managers in the industry was sparked (Hernandez, 2018).

As a result, the Healthcare Leadership Competency Model (HLCM) was developed and in a collaborative effort, which then constituted The Healthcare Leadership Alliance (HLA) Consortium, formed by over 100,000 healthcare management professionals (Stelf, 2008). A competency directory was organized with each domain containing competency statements and identifying subcategories. A total of 300 statements were developed. The consortium also saw these skills as interdependent and as leadership is the common element, and all other skills derive from it (Figure 3).

Figure 2-Interdependent skill domains. Reproduced from IHF (2015 a, p. 4)

2.3. The Global Consortium for Healthcare Management Professionalization and the Global Healthcare Management Competency Directory

The Global Consortium for Professionalization of Healthcare Executives was organized in 2013 with the leadership of the International Hospital Federation (IHF), a non-governmental organization based in Geneva, Switzerland. IHF represents health institutions at an international level and organizations linked to the provision of health care (IHF, 2015 a). The Consortium had the representation of leaders of organizations from the government, private sector, health associations, and academic institutions.

The objective was developing a directory of the core competencies for health leaders, to professionalize the leadership and health systems management worldwide and improve patient care and to serve as a catalyst and resource defining skills, knowledge and abilities needed for the healthcare profession, to encourage human resource managers to develop career plans for leaders in the health sector, to promote the formalization of healthcare management associations, to develop an consensual set of core competencies that are internationally recognized and build global capacity in the leadership and management of health systems. According to the Consortium:

> *"In many parts of the world, healthcare organizations are managed by clinicians who often have limited management and leadership competencies. We do not believe there is value in debating on the profile for best leaders in hospital management, but there is increasing evidence of the fact that management is important in the outcome of healthcare organizations, including clinical domains.*
>
> *This situation calls for the professionalization of healthcare management relying on a core set of competencies related to knowledge, skills, and attitudes.*
>
> *Professionalization means that in order to perform well in terms of healthcare management, leaders:*
>
> - *Need to have acquired the right sets of knowledge*
> - *Should develop appropriate skills to give full potential to knowledge, through experience*
> - *Must master relevant attitudes through accumulated experience*" (IHF, 2015 b, p.1)

The Global Consortium recognized that to achieve efficient use of healthcare resources and for improvement in patient outcomes, competent management of healthcare organizations is critical and that two main barriers stood in the way of competent management: lack of adequate management training and the lack of recognition of healthcare management as a profession in some countries (Hernandez, 2018; IHF, 2015 a)

The work started with an initial group of 12 experts from international organizations who analyzed different management competency frameworks (IHF, 2015 a). After reviewing, the HLA competency directory was chosen as a benchmark, because it provided a typology that used domains, subdomains and statements, contrary to framework models that are complex to use in professional and individual settings. The identification of these areas and the establishment of a directory with a user-friendly framework is a powerful tool in health management, as managers in different locations can share a language and knowledge in common. After this consensus, the initial directory had more than 300 competencies and 5 domains (IHF, 2015 a):

Domain 1- Leadership

The ability to inspire individual and organizational excellence, create a shared vision and successfully manage change to attain an organization´s strategic ends and performance. Leadership intersects with the other four domains

Domain 2-Communications and Relationship Management

The ability to communicate clearly and concisely with internal and external customers, establish and maintain relationships, and facilitate constructive interactions with individuals and groups

Domain 3- Professional and Social Responsibility

The ability to align personal and organizational conduct with ethical and professional standards that include a responsibility to the patient and community, a service orientation, and a commitment to lifelong learning and improvement.

Domain 4- Health and Healthcare Environment

The understanding of the healthcare system and environment in which healthcare managers and providers function

Domain 5- Business

The ability to apply business principles, including system thinking, to the healthcare environment.

The competencies were reviewed and ranked in order of importance by a variety of healthcare experts from around the world. The Global Consortium, using the feedback from surveys and review meetings drafted the final version of the directory, consisting in five domains, 26 subdomains and 80 core healthcare management statements depicted on Annex A (IHF, 2015).

The use of the GD by hospitals and executives is encouraged by the European Association of Healthcare Managers to assess development needs and advocated to be adopted as a competency framework for formal recognition of the profession and in educational programs. (Hernandez, 2018).

The Global Consortium advocates through the *Call to Action* that the directory is used in various industries and in diverse ways (Figure 5).

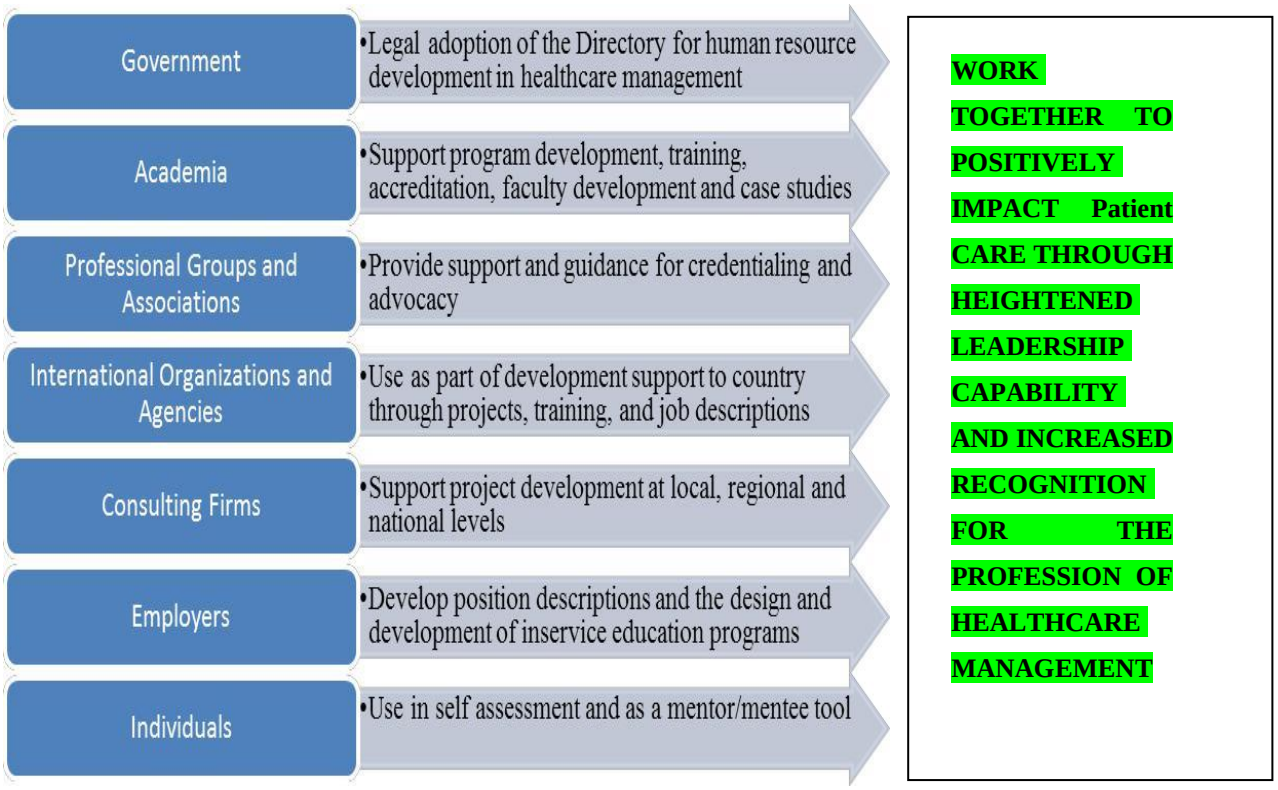

Figure 3-Global Directory uses. Reproduced from IHF (2015, p.5)

The consortium also organized an interest group, The Healthcare Management Special Interest Group (HM-SIG), which is available at https://www.ihf-fih.org/activities?type=sig&section=healthcare-management.

The Global consortium and Global directory came to fill up the need for homogenization of competency criteria used worldwide and comprehensively enable its use in various sectors of the healthcare industry and is supported by many societies and organizations from around the globe[1]. The IHF has been doing outreach work of the directory

[1] American College of Healthcare Executives, Australasian College of Health Service Management, Canadian College of Health Leaders, European Association of Hospital Managers, Brazilian Federation of Hospital Administrators, Federacion Andina y Amazonica de Hospitales, Federacion Latinoamericana de Hospitales, Health Management Institute of Ireland, Hong Kong College of Healthcare Executives, International Health Services Group, International Hospital Federation, Jamaican Association of Health Services, Management Sciences for Health, Pan American Health Organization, Sociedad Chilena

worldwide (IHF, 2015 a). The HM-SIG has been adopting action plans for the acceptance and use of the GD by professional associations all over the world.

2.4. Accreditation of Healthcare Institutions

Since de 1970s accreditation programs and accrediting organizations have emerged, and an international body, the International Society for Quality in Health Care (ISQua), which among various attributions is also "the accreditor of accrediting agencies worldwide" has an active role. According to the ISQua site (ISQua, 2019):

> "*ISQua is a member-based, not-for-profit community and organization dedicated to promoting quality improvement in health care. We have been working to improve the quality and safety of health care worldwide for over 30 years. We aim to achieve our goal through education, knowledge sharing, external evaluation, supporting health systems worldwide and connecting like-minded people through our health care networks. Our extensive network of health care professionals spans over 70 countries and 6 continents. ISQua's members are continually working towards quality improvement in health care around the world.*" (ISQua, 2019, p.1)

ISQua established the International Accreditation Program (IAP) in 1999 and in 2018, the International Society for Quality in Healthcare External Evaluation Association (IEEA), with the same objectives as the IAP: providing third-party external evaluation to health and social care external evaluations and standard developing bodies. ISQua also publishes standards and guidelines for the external evaluation of accrediting organizations, standard developing agencies, and surveyor training programs (ISQua, 2019).

In this study, three different types of Health Service Accreditation will be addressed and used in the research methodology: Joint Commission International (JCI), Organização Nacional de Acreditação (ONA), exclusive to Brazil, and Qmentum International (QI). In the next three sessions, a brief review of each type of accreditation used in the research.

Administrators en Medical Atención y Hospitalaria, Taiwan College of Health care Managers, Tropical Health Trust and-Education Partnership for Global Health, University of West Whales

2.4.1 –Joint Commission International (JCI)

Quality evaluations of hospitals started in 1924 by the American College of Surgeons, when a set of patterns was established to guarantee quality in healthcare delivery (Feldman, 2005). In 1949 the number of patterns had grown considerably, and new partnerships with other medical societies started. In 1952 the Joint Commission on Accreditation of Hospitals was created and finally, in 1970 the Accreditation manual for Hospital was published and many American hospitals had already met minimum patterns (Feldman, 2005).

In 1998, a task force with a member from all continents and members representing ISQua was created for the development of international accreditation standards, designing the Joint Commission International Program (JCI) (Feldman, 2005). The JCI program has an organizational accreditation approach and the evaluation considers functions and systems within the organization, such as the support of patient care, management, governance, facility administration, and privileges healthcare delivery monitoring through indicators (Donahue, 2000).

Currently, Joint Commission accredits and certifies over 21.000 healthcare organizations in the USA and JCI accredits and certifies 1090 worldwide (JCI, 2019 d)

2.4.2-Qmentum International/Canadian Accreditation

When the American College of Surgeons started quality evaluation of hospitals and standardization in 1924, Canada was a member of the association and in 1953 The Canadian Hospital Association, the Canadian Medical Association, the Royal College of Physicians and Surgeons, and l'Association des médecins de langue française du Canada, established the Canadian Commission on Hospital Accreditation with the objective of creating a program for hospital accreditation. In 1995, the Council changed its name to the Canadian Council on Health Services Accreditation (CCHSA) and in 2000 Accreditation Canada International is created, starting to do accreditation outside Canada. In 2008, the Qmentum Accreditation Program was created and in 2017 the Health Standards Organization (HSO) was launched for the development of standards (Accreditation Canada, 2019 a).

Qmentum International offers a three-level accreditation program and organizations are awarded Gold, Platinum or Diamond accreditation status according to Required Organization Practices (ROP) compliance, where gold addresses basic structures and processes linked to safety and quality improvement, Platinum focus on consistency in delivering of services through standardized processes and the involvement of clients and staff in the decision-making process, and Diamond focus on monitoring outcomes, use of evidence and best practices and benchmarking with peer organizations to drive improvements.(Accreditation Canada, 2019 b). Currently, in Brazil, only Diamond status is awarded.

2.4.3-Organização Nacional de Acreditação (ONA)

In Brazil, in 1951, the first minimum standards for hospital surgical rooms were established, together with standards on medical charts and general norms for hospitals (Feldman, 2005). In 1960, the Instituto de Aposentadoria e Pensão dos Previdenciários already had standards for accrediting hospital services and in 1970 the Ministry of Health published norms for the regulation of hospital quality evaluations. (Ministério da Saúde, 1994). In 1989, the World Health Organization considered accreditation a strategic element for the development of quality in Latin America and the Ministry of Health in Brazil established a partnership with The Pan American Health Organization and the Latin American Hospital Federation to elaborate an Accreditation Manual. In 1997 The Consórcio Brasileiro de Acreditação was created and with the Joint Commission consultation established a national accreditation program and became part of the international accreditation community. (Schiesari, 1999). In 1999, ONA-Organização Nacional de Acreditação was created with the main objective of implementing a national quality improvement program in healthcare. In 2013, ONA was accepted as a member of ISQua and in 2018 elected as a member of ISQua´s International Accreditation Counsel (ONA, 2019 b).

ONA currently has three levels of accreditation: Level 1, where the organization has a conformity level to quality and safety standards of 70%; Level 2, where the organization must have a compliance level to quality and safety standards of 80% or more and a 70% or more compliance to management standards and processes; and Level 3, where the organization must have a compliance level of 90% or more to quality and safety

standards, 80% or more level of compliance to integrational management and processes and 70% or more compliance to excellence in management and governance standards. (ONA, 2019 b)

All three types of accreditation above (JCI, ONA, Qmentum) use a tracer methodology or variations, consisting of an interactive process surveyors use that includes direct observation, interviews and interaction with staff, patients, families, operational and executive leadership, and examination of documents and mapping of fluxes and processes on the site where they are applied , in order to gather evidence about the quality and safety of care, the continuity of care, and the conformity to standards by services in a particular area, such as supply chain, governance, leadership, hospitality, and areas directly linked to the provision of healthcare.

2.5- Accreditation and health services performance

Accreditation is an important strategy used worldwide and is the strategy most often selected to improve quality. As of 2018, healthcare accreditation has become an integral part of the healthcare systems in over 95 countries (Devkaran, 2019). As stated before, it is also a requirement in by some governments and regulatory agencies (Lam 2018). The capacity of accreditation to lead to sustainable improvements in quality and patient care should be viewed as its main impact. (Jaafaripooyan, 2011).

There are conflicting views in the literature about accreditation and performance, because of different study designs and the difficulty of setting performance indicators that are representative and homogeneous in the literature, but some studies have found a positive correlation in diverse areas. Shaw (2008) published a study with more than 88 European hospitals in 6 different countries, suggesting that the adoption of standards, as adopted by the external accreditation bodies, could reduce the number of unacceptable differences between hospitals, detected when governance processes were evaluated. A large study called Deepening our Understanding of Quality Improvement in Europe (DUke) that Secanelli, (2014) lead in several European countries, also showed a positive correlation between accreditation and improvements in quality and management of the institutions.

The term quality or quality continuous improvement is a dynamic and endless process of identifying errors in processes, routines and procedures, which must be periodically

reviewed, updated and spread in an organization (Feldman, 2005) and once the organization progresses to a quality improvement framework, there is also a need to encourage self-monitoring and reflection to encourage sustainability (Desveaux 2017).

Accreditation also has impacts on organizational policies, environments, guidelines, regulations and procedures. Hinchfiff (2012) conducted a narrative synthesis and systematic identification of health service accreditation literature and identified 62 studies published up to 2013 that addressed this issue, exploring themes such as increased compliance with programs and guidelines, development of organizational culture leading to quality and patient safety, implementation of continuous quality programs, leadership and staff involvement, information management. His study also suggested a positive relationship between clinical outcomes and indicators and accreditation. In a recent study, Greenfield (2019), in a longitudinal study of 311 Australian hospitals, found evidence that participation in accreditation enhanced Human Resources performance and stimulated the establishment of policies related to quality and strategic planning and Jha(2010) showed that accredited hospitals in the United States tend to have better performance and improvement over time compared to hospitals that are not accredited when considering KPI measures in the database Hospital Compare from Centers for Medicaid and Medicare.

Accreditation can be considered a planned organizational change process and a complex intervention and is not a linear intervention, because there are many separate and concurrent elements being evaluated at the same time (Greenffied, 2012; Brubakk, 2015) and as such, having competent leadership is a fundamental part of achieving success. Lewins (1947 apud Hussain 2018) is an author still referenced in the literature regarding change processes. The author refers to the importance of leadership in such processes and established three steps to implement planned organizational change described as Unfreezing the present, changing and moving to next level and freezing on new level. *Unfreezing* refers to the change in the organization system that needs to be addressed and done and the mobilization made by leaders, the second step, *Moving to the next level*, implies that leaders must involve, encourage, educate people towards reaching the goals and *Freezing* is the phase where the changes have been implemented and become part of the organization. Leadership is considered of the upmost importance in implementing such change processes (Hussain, 2018; Rosembaun, 2018) and leader encouragement is

necessary for task performance and goal achievement (Higgins, 2003). Lewins (1947) model has inspired many other models for implementing change (Rosenbaum 2018). Batillana (2010) listed three activities, communicating the need of change, mobilizing others and evaluating change implementation, and one of the most classical and used models so far, developed by Kotter (1995) involving an eight step model that highly depends on leadership (establish a sense of urgency, create teams, develop vision and strategy, communicate change vision, empower and involve people, recognize people´s work, consolidate gains and anchor the new changes.). All these models carry a similarity to the accreditation process as it happens.

The accreditation process is very similar when considering different types of accreditation, with few differences in such aspects as accreditation process time, number and type of standards, evaluation of high governance practices, surveyor visit schedule and methods, but all have in common a focus on quality and patient safety. The candidate institution chooses an accreditation agency to conduct the process and during a determined period prepares for the final accreditation visit, using an accreditation manual that contains the requirements and standards against which it will be evaluated. The organization goes through auditing visits during this period of preparation, where compliance to the standards is accessed and is subjected to feedback, leading to a continuous improvement cycle and to the final visit, where the organization may or not be awarded the accredited status. This is not an easy task, the institution must be familiar with the current standards; examine processes, policies, and procedures relative to the standards; and prepare to improve any areas that are not in compliance during years of continuous assessment and evaluation (JCI, 2019 c). Pomey (2010) conducted a study in Canada that showed that the number of years an institution has participated in accreditation has an impact on the change process, and the first accreditation an organization goes through can be particularly challenging and is subject to a learning cycle and a learning curve for individuals and for the institution. The methodology of accreditation itself, focused on continuous improvement, where the incorporation of feedback practices, self-assessment, setting up of teams and committees in the institution, recommendations by surveyors, and the practice of agencies of up-dating standards regularly, have a contribution on this learning cycle and curve (Jaafaripooyan, 2011).

2.6-Accreditation of healthcare services and competencies in healthcare management

Hernandez (2019) suggests that better management can lead to better performance in healthcare in various settings, but there is scarce evidence in the literature about the role competencies play in the accreditation process. Published studies by Ducket (1983), McCleish (2002), Peterson (2003) Dickison (2006) found a positive correlation between professional development and accreditation. More recently, Greenfield (2008), in a systematic review, also found that accreditation not only promotes organizational change, but professional development in various leadership areas within a health system, such as administration, management, doctor and nursing leadership and according to this systematic review findings, accreditation had a positive influence on individuals seeking professional organization membership, and passing professional credentialing program exams. Another finding in this study suggest that management has a key role in achieving accreditation. Shaw (2009) showed a positive correlation between high-performance institutions and institutions in which the board chose quality as one of its strategic priorities and that 69% of these institutions believed that the CEO leadership had a great influence on the quality of care provided in the institution. Braithwait (2010) in a randomized and blinded study showed that accreditation statistically correlates positively with leadership (rho=0.616, p=0,005), organizational culture and clinical performance, meaning competent leadership has a positive influence in the process of accreditation, and that accreditation may predict the performance of the institution. Hincliff (2014), in a systematic review, also found that accreditation results predicted greater organizational leadership, compliance with organizational programs and guidelines, improved negotiation skills and helped stimulate organizational improvement.

In a study with the objective to analyze the impact of accreditation in organizational learning, conducted in 498 hospitals in Taiwan, Yan (2015) published that findings suggest that continuous learning by individuals and teams had a positive impact on accreditation awareness ($p<0,001$) and in order to reach a shared vision, such as achieving accreditation, it is necessary to develop leadership competencies within the organization.

Desveux (2017) published a study made between 2014 to 2016 in organizations that participated in Accreditation Canada Qmentum program, specifically aiming individuals

that were involved in managing and leadership capacities and found that the accreditation process can influence individual professional characteristics and the way they interact with the organization. This study also highlights the importance of leadership in the process, with participants describing that the presence of a credible leader, that may or not be actively involved in preparing the organization, positively contributes to people engagement to the process and to the vision and that conflicting attitudes of management and senior leadership had the opposite effect.

3-Methodology

3.1-Research Questions/Hypothesis

The main questions concern the participant opinions and perceptions on two main questions: what competencies were supportive/necessary for their position to drive their institution to achieve accredited status and if they have acquired or improved any competencies during the accreditation process. The main hypothesis is that since accreditation is a complex and multi-faceted process, a variety of competencies are necessary during the process to drive their institutions to achieve accreditation. Also, considering the present literature, there is evidence that accreditation may be linked to personal professional development, better leadership and improvement of skills such as negotiation. However, so far, no other study has identified which specific competencies may develop from the accreditation process or which may support the performance of individuals during accreditation to achieve accredited status.

3.2-Methodology and Result Analysis Methods

Studies using qualitative methodology have been employed in the management area because of themes related to organizational behavior and work subjectivity (Silva, 2015). Qualitative research is the choice when research has the objective of studying experiences and according to Mendes (2006) it is how one, seeking to explain the relation between subjective concepts and phenomena, can demonstrate their relationship logically, and Gaskell (2002) says that qualitative research provides data related to people´s behaviors in specific contexts.

According to Patton (2005), in qualitative studies the sample size may be smaller than in quantitative studies, because the objective is to make a deeper analysis considering a

subject selection that can bring up a richer content and meaning to the research interpretation. Patton also considers that careful selection of subjects that have expertise in an area or may have gone through specific experiences, what may be considered biased in some quantitative studies, is a desirable instance in qualitative research, because of the subject experience in the study context. Malterud (2001, p.483) displays a view that *"qualitative research methods are founded on an understanding of research as a systematic and reflective process for the development of knowledge*". In qualitative studies, it is also right to say that the way the material is interpreted influences the direction of results independently of the characteristics of the content (Flick, 2014).

In this particular study, subjects occupy positions of leadership in healthcare institutions and have went through a common process, accreditation, which can be an arduous and time demanding task, as the process may take years and is a continuous effort even after accreditation is achieved, because recertification visits and evaluation to maintain accredited status happens after a period of time.

This survey is composed of a structured part with objective yes/ no questions and open-ended questions. Each part has the objective of answering one of the proposed questions on this study, but they are complimentary. Because of this particularity, result analysis will be done using descriptive analysis of the objective questions, content analysis of the open questions and triangulation of results.

Content analysis can be defined as "*subjective interpretation of the context of text data through systematic classification of coding and identifying themes or patterns"*(Hsieh, 2005, p.1278) or as a "*Systematic replicable technique for compressing many words of text into fewer content categories"* (Krippendorf, 1980 apud Stemler, 2001, p.1) and is considered one of the most used techniques in social and human sciences, being used as early as the 1940`s and the technique has been refined since (Silva , 1990) .

According to Bardin (1979), content analysis is used to explore context and discover new elements and leads to the discovery of hypothesis through analysis that serves as guidelines to research and the analytical process is conducted through categories or units. Bardin proposes that analysis should be done in stages: pre-analysis, material exploration, treatment, inference and interpretation of results (Figure 4).

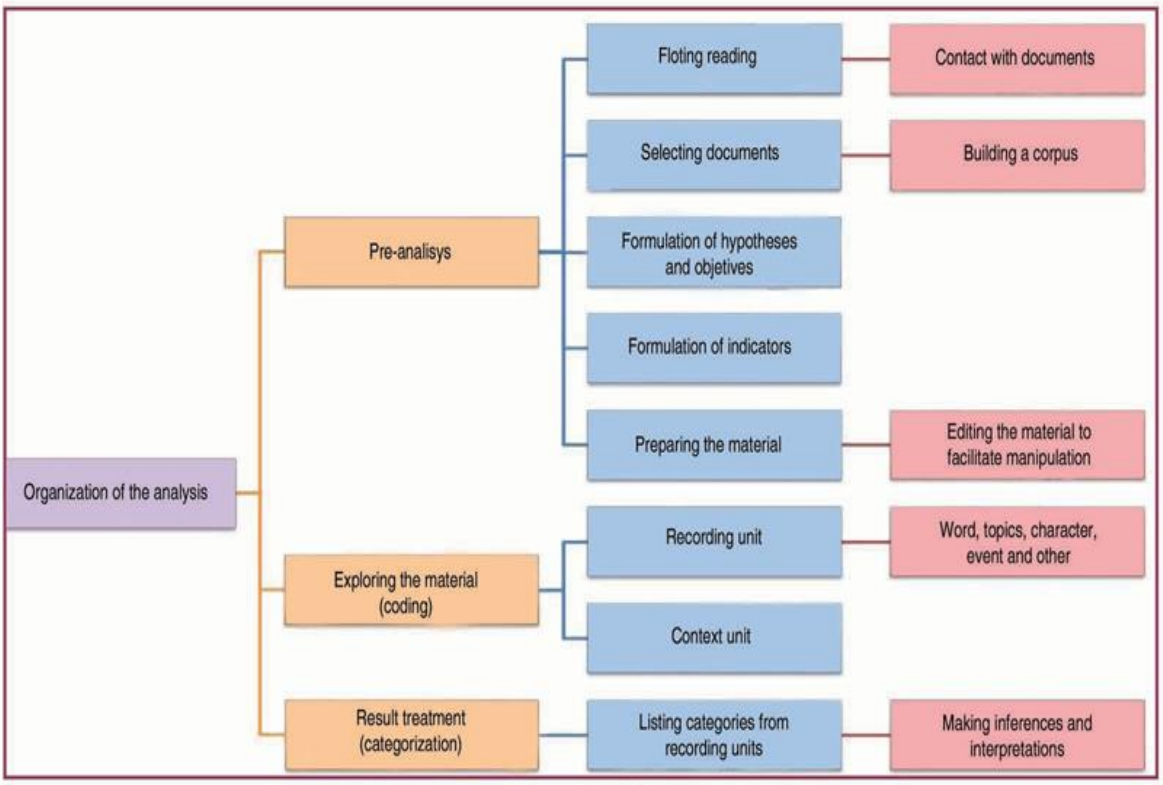

Figure 4-Content Analysis Steps. Reproduced from: Benites (2013 apud Benites 2016, p.91.)

The pre-analysis phase is where the available research material is analyzed, organized, read (floating reading) and hypotheses are formulated, and indicators found. In the case of material specifically produced such as a survey, this material constitutes what is called the research *corpus.* In the next phase, by exploring the *corpus* the investigator aim is to understand the meaning given by those involved in the study, which includes looking for and counting repeated ideas, words, even those that do not appear in the material and coding of words and the creation of recording units and context units. By categorizing the material, it is organized into the units and inferences and interpretations are made. The registry unit category may be created *a posteriori*, after analysis of the material or they may be *a priory* linked to previous theory or category present in the research (Silva, 1990). This last stage, treatment, inference, and interpretation of results organize all the information and is what Bardin refers to as categorization:

> *"Categorization is an operation to classify the components of a set by differentiation and then by regrouping according to genre (analogy) under pre-defined criteria. The categories are rubrics or classes, which bring together a group of elements under a generic title. That grouping is conducted because of the common characters of those elements (…) categorization is a structuralist process and involves two stages:*
>
> *-Inventory: isolating the elements*
>
> *-Classification: dividing the elements, and therefore seeking or imposing organization to the messages."* (Bardin, 1979, p. 117-118).

In this research analysis, using triangulation aligned with the descriptive analysis of the structured questions and content analysis of the open questions has the objective of combining the different types of data to reach conclusions about the questions being investigated. Denzin (2005) describes it as a qualitative alternative to validate research that utilizes multiple research methods to achieve a deeper understanding of the phenomena being investigated and Patton (2005) considers triangulation a way of combining various measurement approaches and analytical designs in one study. Cresswell and Clark (2013) consider triangulation as a form of convergence, *"quali-quantitative*" research to obtain results on the same topic. In regard of the analysis of this study results, triangulation will be done to achieve convergence and complementation of results and a deeper analysis can be achieved.

3.3- Study Design and Procedure

In the first phase, institutions that are accredited by accreditation bodies associated with The International Society for Quality in Healthcare (ISQua) and have been certified with ONA or Qmentum International/Canadian Accreditation or Joint Commission International (JCI) accreditation certificate will be identified.

The target subjects will be people with executive, manager and leadership roles, specifically: Presidents, Vice-presidents, Chief Executive Officers (CEO), Chief Medical Officers (CMO), Chief Operational Officers (COO), Executive Directors, Medical Directors, Managers, and Department Chiefs/Coordinators of healthcare institutions

accredited by ONA, Qmentum International / Canadian accreditation and JCI, that have participated in the accreditation process leading to accredited status.

A survey adapted from the GD was sent electronically to the participants via Survey Monkey link. The survey will contain closed and structured multiple-choice questions and open questions, where the participants could write their opinion and perceptions freely. All participants received an explanation of the study's purpose and objectives and when answering the survey agreed to the use of the answers in this study and were assured their identities and other personal information will remain anonymous. The complete survey can be found in PDF by scanning the QR code bellow and on Appendix B.

Figure 5-Survey QR code, scan for survey in PDF

The first part of the survey contains general identification questions, including: Type of healthcare institution, type of accreditation achieved, position at the organization at the time accreditation took place, primary professional degree, if the participant led the accreditation process, was directly involved in the process and an open question asking to describe the individual role in the process. The second part of the survey depicts each five domain dimensions of the GHMD divided into the subdomains. Each statement of the subdomains contains a yes/no answer to the question: ***Please read the following competencies and check the box yes for all competencies that in your opinion are/were supportive/necessary, (for your position in the organization) to better drive an organization in meeting accreditation requirements. Check No if you consider that competency does not influence achieving accreditation.***

At the end of each domain, there is a yes/no question, followed by an open question with a long answer box: ***In your opinion, did you have to acquire or improve any (domain identification) competency because of the accreditation process? (If yes, you may answer freely in English or Portuguese or use subdomain letters and numbers, e.g.: A1, B3, etc.).*** After the answers were received, the information was processed using Survey Monkey for data collection and the open question answers were further processed on the MAXQUA software, used for qualitative research.

4-Results

4.1-General information

Fifty-four individuals in Brazil that fit the criteria were identified and the survey was sent to them via Survey Monkey link by e-mail and WhatsApp. A total of 24 people from 16 different institutions answered the survey. Three surveys were excluded because only the general information session was answered. The participant's general characteristics are depicted on tables 1 and 2.

Table 1-General Characteristics

	CEO/Executive director	CMO/Medical director	COO/Director of operations	Manager	Department head/chief	Other	Total
Total	5	3	1	3	6	4	22
Accreditation							
JCI	3	2	1	2	2	2	11
Qmentum	1	1	0	0	2	1	6
ONA 1	0	0	0	0	1	0	1
ONA 2	0	0	0	0	1	0	1
ONA 3	2	0	0	2	0	1	3
Primary degree							
Medicine	4	3	1	3	4	3	18
Other	1	0	0	0	2	1	4
Institution							
Hospital	4	3	0	2	6	3	18
Clinic	0	0	0	1	0	1	1
Other	1	0	1	1	0	0	3

C-level executives and directors accounted for 40,92% of the answers, Managers for 13,64%, Department Chief/Coordinator for 27.7% and Other for 18.18% (1 sales and marketing director, 1 population health director, 2 consultants). For the purpose of result analysis, the sale and marketing director and the population health director were included in the C-level and directors' group and both consultants were included in the managers group, considering the three levels of management decisions: strategic, tactical and operational.

JCI accreditation represents 50% of the accreditation type achieved; Qmentum International 27,27%; ONA (all three levels) 22,74%.

Table 2: General Characteristics

Number	Institution	Accreditation	Position	Degree	Lead*	Directly involved?**	Whole process***
Excluded							
3	Hospital	JCI	CMO/Medical Director	Medicine	Yes	Yes	Yes
4	Hospital	JCI	Department Chief/Coordinator	Medicine	Yes	Yes	Yes
5	Hospital	Qmentum	Department Chief/Coordinator	Medicine	Yes	Yes	
6	Hospital	Qmentum	CMO/Medical Director	Medicine	Yes	Yes	Yes
7	Hospital	JCI	Quality Control Coordinator	Nursing	Yes	Yes	yes
8	Hospital	Qmentum	Manager	Medicine	Yes	No	
9	Hospital	Qmentum	Senior Consultant	Medicine	No	No	
10	Hospital	ONA 3	CEO/Executive director	Medicine	Yes	Yes	Yes
11	Hospital	JCI	Department Chief/Coordinator	Medicine	No	No	
12	Home care	JCI	COO/Director of Operations	Medicine	Yes	Yes	Yes
13	Hospital	ONA 3	Consultant	Administration	Yes	Yes	No
14	Hospital	Qmentum	Department Chief/Coordinator	Medicine	Yes	Yes	Yes
15	Hospital	Qmentum	Manager	Medicine	Yes	Yes	Yes
16	Hospital	JCI	CEO/Executive director	Psycologist	Yes	Yes	Yes
17	Hospital	JCI	CMO/Medical Director	Medicine	Yes	Yes	Yes
18	Hospital	ONA 3	CEO/Executive director	medicine	Yes	Yes	yes
19	Home Care	JCI	Other (please specify)	Medicine	No	Yes	Yes
20	Hospital	JCI	CEO/Executive director	Medicine	Yes	Yes	Yes
21	Clinic	JCI	Manager	Nurse	No	No	
Excluded							
23	Hospital	ONA 1	Department Chief/Coordinator	Medicine	No	Yes	Yes
24	Hospital	ONA 2	Department Chief/Coordinator	Medicine	No	Yes	Yes

Note: * Did you lead the preparation of the institution for accreditation? **Were you directly involved in the accreditation process? ***If yes, were you involved in the whole process leading to accreditation?

81,82% of the accredited institutions are Hospitals. There are 1 Clinic and 2 Homecare institutions in the mix.

81,82% of the subjects have a primary degree in Medicine, which reflects the scenario in Brazil, where medical doctors tend to be the managers and leaders in healthcare. One subject has a degree in Business Administration, 2 have a degree in Nursing and 1 has a degree in Psychology.

Regarding their role in the accreditation process, 71,43% lead the preparation of the institution for accreditation and 81,82% were directly involved in the accreditation process.

4.2- Structured questions results

For chapter structuring and better reader comprehension, this session will be divided into two: the first part contains the results from structured questions (yes/no questions) in tables, where each table represents one subdomain and its statements numbered on the left side. The second part contains tables with the results for third part of the survey. Chapter 5 will present the result analysis and chapter 6 the discussion.

On this second part of the survey, participants answered the following question: ***Please read the following competencies and check the box yes for all competencies that in your opinion are/were supportive/necessary, (for your position in the organization) to better drive an organization in meeting accreditation requirements. Check No if you consider that competency does not influence achieving accreditation.***

At the end of each dimension competency statement yes/no question, there was another question with an open answer box, their results will be presented on item 4.3-Open questions results.

4.2.1- Domain: Leadership Competencies

The leadership dimension contains 4 subdomains (A, B, C, D), with 9 competency statements. 75% of the participants that answered no to any of the statements are Department Chiefs/Coordinators.

Table 3: Leadership Domain, Subdomain A: Leadership Skills and Behavior results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Articulate and communicate the mission, objectives, and priorities of the organization	95.45% 21	4.55% 1	22	1.05
2. Incorporate management techniques and theories into leadership activities	100.00% 21	0.00% 0	21	1.00
3. Analyze problems, promote solutions and encourage decision making	100.00% 21	0.00% 0	21	1.00

All participants but one has the opinion that the competencies in this subdomain listed were supportive /necessary to drive their organizations to achieve accreditation.

Table 4: Leadership Domain, Subdomain B: Engaging Culture and Environment results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Create an organizational climate built on trust, transparency, focus on improvement and that encourages teamwork and diversity	100.00% 22	0.00% 0	22	1.00
2. Encourage high-level commitment from employees by communicating vision and goals	100.00% 21	0.00% 0	21	1.00
3. Hold self and others accountable to surpass organizational goals	85.00% 17	15.00% 3	20	1.15

Statements B1 and B2 had 100% of positive answers and B3 had 85%.

Table 5: Leadership Domain, Subdomain C: Leading Change results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Promote ongoing learning and improvement in the organization	100.00% 21	0.00% 0	21	1.00
2. Respond to need for change and lead change process	90.48% 19	9.52% 2	21	1.10

Statement C1 had 100% of positive answers and C2 had 90,48%

Table 6: Leadership Domain, Subdomain D: Driving Innovation results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Encourage diversity of thought to support innovation, criativity and improvement	90.91% 20	9.09% 2	22	1.09

90,91% of participants answered yes to this subdomain.

4.2.2- Domain: Communications and Relationship Management Competencies

The communications and relationship management dimension contain 3 subdomains (A, B, C) with 10 competency statements. 90% of the participants that answered no to any of the statements are Department Chiefs/Coordinators.

Table 6: Communications and Relationship Domain, Subdomain A: Relationship Management

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Demonstrate the ability to develop and sustain positive and effective stakeholder relationships	100.00% 21	0.00% 0	21	1.00
2. Practice and value transparent shared decision making and understand its impacts	95.24% 20	4.76% 1	21	1.05
3. Demonstrate collaborative techniques for engaging and working with steakholders	90.48% 19	9.52% 2	21	1.10

All respondents answered yes to statement A1, and statements A2 and A3 got 95,24% and 90,48% of positive answers, respectively

Table 7: Communications and Relationship Domain, Subdomain B: Communications Skills and Engagement

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Exercise cultural sensitivity in internal and external communications	100.00% 21	0.00% 0	21	1.00
2. Demonstrate strong listening and communication skills	100.00% 21	0.00% 0	21	1.00
3. Demonstrate collaborative techniques for engaging and working with stakeholders	100.00% 21	0.00% 0	21	1.00
4. Demonstrate understanding of the function of media and public relations	75.00% 15	25.00% 5	20	1.25

All participants have answered yes to the first 3 competencies listed, and 75% answered yes to “demonstrate understanding of the function of media and public relations”

Table 8: Communications and Relationship Domain, Subdomain C: Facilitation and Negotiation results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Manage conflict through mediation, negotiation and other techniques	95.24% 20	4.76% 1	21	1.05
2. Demonstrate problem solving skills	95.24% 20	4.76% 1	21	1.05
3. Build and participate in effective multidisciplinary teams	100.00% 21	0.00% 0	21	1.00

Competency C1and C2 had 95,24% of positive answers and C2 had 100% of positive answers

4.2.3- Domain: Professional and Social Accountability

The professional and social accountability domain contains 5 subdomains (A, B, C, D, E) and 14 competency statements. 40 % of the participants that answered no to any statement are Department Chiefs/Coordinators and 34,37% are managers.

Table 9: Professional and Statement Social Accountability, Subdomain A: Personal and Professional Accountability results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Advocate for and participate in healthcare policy initiatives	85.71% 18	14.29% 3	21	1.14
2. Advocate for rights and responsabilities of patients and their families	80.00% 16	20.00% 4	20	1.20
3. Demonstrate an ability to understand and manage conflicy-of-interest situations, as defined by organizational bylaws, policies and procedures	95.24% 20	4.76% 1	21	1.05
4. Practice due diligence in carrying out fiduciary responsabilities	57.14% 12	42.86% 9	21	1.43
5. Promote quality, safety of care and social commmitement in the delivery of health services	95.24% 20	4.76% 1	21	1.05

A1 received 85,71% of positive answers, A2 80%, A3 95,24%, A4 57,14% and A5 95,24%

Table 10: Professional and Social Accountability, Subdomain B: Professional Development and Lifelong Learning results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Demonstrate commitement to self-development including continuing education, networking, reflection and personal improvement	95.00% 19	5.00% 1	20	1.05

95% of participants answered yes to this subdomain.

Table 11: Professional and Social Accountability, Subdomain C: Contributions to the Profession results*:*

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Contribute to advancing the profession of healthcare management by sharing knowledge and experience	90.00% 18	10.00% 2	20	1.10
2. Develop others by mentoring, advising, coaching or serving as a role model	90.48% 19	9.52% 2	21	1.10
3. Support and mentor high potential talent	90.48% 19	9.52% 2	21	1.10

Statement C1 had 90% of positive answers and statements C2 and C3 had 90,48% each.

Table 12: Professional and Social Accountability, Subdomain D: Self-Awareness results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Be aware of one´s own assumptions, values, strenghts and limitations	90.00% 18	10.00% 2	20	1.10
2. Demonstrate reflective leadership by using self-assessment and feedback from others in decision making	90.48% 19	9.52% 2	21	1.10

Statements D1 and D2 had 90% and 90,48% of positive answers respectively.

Table 13*:* Professional and Social Accountability, Subdomain E: Organizational Dynamics and Governance results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Demonstrate high ethical conduct, a commitment to transparency and accountability for one's actions	95.24% 20	4.76% 1	21	1.05
2. Use the established ethical structures to resolve ethical issues	85.71% 18	14.29% 3	21	1.14
3. Maintain a balance between personal and professional accountability, recognizing that the central focus is the need of the patient/community	90.48% 19	9.52% 2	21	1.10

Statements E1, E2, E3 had 20, 18 and 95,42%, 85,71% and 90,48% of positive answers respectively.

4.2.4-Domain: Health and Healthcare Environment Competencies

This domain contains four subdomains (A, B, C, D) and 12 statements. 63% of the participants that answered no to any statement are Department chief/Coordinators and 26% are managers.

Table 14: Health and Healthcare Environment, Subdomain A: Health Systems and Organizations results:

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Demonstrate understanding of system structure, funding mechanisms and how healthcare services are organized	100.00% 20	0.00% 0	20	1.00
2. Balance interrelationships among access, quality, safety, cost, resource allocation, accountability, care setting, community needs and professional roles	90.00% 18	10.00% 2	20	1.10
3. Assess the performance of the organization as part of the health system/healthcare services	95.00% 19	5.00% 1	20	1.05
4. use monitoring systems to ensure legal, ethical and quality standards are met in clinical, corporate and administrative functions	100.00% 20	0.00% 0	20	1.00

Statements A1 and A4 had 100% of positive answers and statements A2 and A3 had 90% and 95% of positive answers.

Table 15*:* Health and Healthcare Environment, Subdomain B: Health Workforce results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Demonstrate ability to optimize the healthcare work force around local critical force issues, such as shortages, scope of practice, skill mix, licensing and fluctuations in service	100.00% 20	0.00% 0	20	1.00

All participants answered yes to this competency statement.

Table 16: Health and Healthcare Environment, Subdomain C: Person-Centered Health results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Effectively recognize and promote patients and their family´s/caregiver´s perspectives in the delivery of healthcare	85.00% 17	15.00% 3	20	1.15
2. Include the perspective of individuals, families and the community as partners in healthcare decision-making processes, respecting cultural differences and expectations	80.00% 16	20.00% 4	20	1.20

Statements C1 and C2 had 85% and 80% of positive answers.

Table 17: Health and Healthcare Environment, Subdomain D: Public Health results:

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Establish goals and objectives for improving health outcomes that incorporate an understanding of the social determinants of health and of the socioeconomic enviroment	78.95% 15	21.05% 4	19	1.21
2. Use statistics and health indicators to guide decision making and analyse health trends of the population to guide provision of health services	89.47% 17	10.53% 2	19	1.11
3. Manage risks, threats, and damage to health during disasters, emergency situations	94.74% 18	5.26% 1	19	1.05
4. Evaluate Critical processes connected with public health survaillance and controls systems and communicate relevant information to increase response to risks, threats, and damage to health	84.21% 16	15.79% 3	19	1.16
5. Rrecognize the local implications of global health events and its impact on population health conditions	84.21% 16	15.79% 3	19	1.16

Statement A1 had 78,95% of positive answers. A2 had 89,47%, A3 97,74% and A4 and A5 had 84,21% of positive answers

4.2.5- Domain: Business Competencies

There are 11 subdomains (A, B, C, D, E, F, G, H, I, J, K) and 28 statements in this domain. 48% of participants that answered no to any statement are managers and 29% are Department chiefs/ Coordinators. 50% of the department chiefs/Coordinators did not answer to any question on this domain.

Table 18: Business Domain, Subdomain A: General Management results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Demonstrate knowledge of basic business practices, such as business plans, contracting, project management	88.89% 16	11.11% 2	18	1.11
2. Collate relevant data and information, analyse and evaluate this information to support or make an effective decision or recommendation	94.44% 17	5.56% 1	18	1.06
3. Seek information from various sources to support organizational performance, analyse and prioritize requirements	88.89% 16	11.11% 2	18	1.11

Statements A1, A2 and A3 had 88,89%, 94,44% and 88,89% of positive answers, respectively.

Table 19: Business Domain, Subdomain B: Laws and Regulations results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Abide by laws and regulations applicable to the work of the organization	88.24% 15	11.76% 2	17	1.12

88,24% of participants answered yes to this subdomain.

Table 20: - Business Domain, Subdomain C: Financial Management

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Effectively use key accounting principles and financial management tools, such as financial plans and measures of performance	83.33% 15	16.67% 3	18	1.17
2. Use principles of project, operating and capital budgeting	72.22% 13	27.78% 5	18	1.28
3. Plan, organize, execute and monitor the resources of the organization to ensure optimal health outcomes and effective quality and cost controls	83.33% 15	16.67% 3	18	1.17

Statements C1 and C3 had 83,33% of positive answers and Statement C2 had 72,2% of positive answers.

Table 21: Business Domain, Subdomain D: Human Resource Management results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Provide leadership in defining staff roles and responsabilities, developing appropriate job classification/grading systems and workforce planning	94.44% 17	5.56% 1	18	1.06
2. Effectively manage departamental human resource processes, including performance appraisals, incentives, staff recruitment, selection and retention, training and education, motivation, coaching and mentoring and productivity measures	72.22% 13	27.78% 5	18	1.28

Statements D1 and D2 had 94,44% and 72,22% of positive answers, respectively.

Table 22:Business domain, Subdomain E: Organizational Dynamics and Governance results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Demonstrate knowledge of governmental, regulatory, professional and accreditation agencies	83.33% 15	16.67% 3	18	1.17
2. Effectively apply knowledge of organizational systems theories and behaviors	88.89% 16	11.11% 2	18	1.11
3. Interpret public policy, legislative and advocacy processes within the organization	76.47% 13	23.53% 4	17	1.24

Statements E1, E2, and E3 had 83,33%, 88,89% and 76,47% of positive answers, respectively.

Table 23: Business Domain: Subdomain F: Strategic Management and Marketing results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. lead the development of key planning documents, including strategic plans, business services plans and business cases for new services	77.78% 14	22.22% 4	18	1.22
2. Plan for business continuity in the face of potential disasters that could disrupt service delivery	88.89% 16	11.11% 2	18	1.11
3. Develop and monitor operating-unit strategic objectives that are aligned with the mission and strategic objectives	88.89% 16	11.11% 2	18	1.11
4. Evaluate whether a proposed action alligns with the organizational business/strategic plan	88.89% 16	11.11% 2	18	1.11

Statement F1 had 77,78% of positive answers, and F2, F3, F4 had 88,99%.

Table 24: Business Domain, Subdomain G: Information Management results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Uses data sets to asses performance, stablish targets, monitor indicators and trents and determines if deliverables are met	94.44% 17	5.56% 1	18	1.06
2. Ensure that aplicable privacy and security requirements are upheld	94.44% 17	5.56% 1	18	1.06
3. Ensure optimal use of information and trend analysis within the organization through the use of business intelligece, information management, clinical and business systems	94.12% 16	5.88% 1	17	1.06
4. Promote effective management, analysis and communication of health information	94.44% 17	5.56% 1	18	1.06

Each statement had 94,44% of positive answers.

Table 25: Business Domain, SubdomainH : Risk Management results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Effectively use risk management principles and programs, such as risk assessment and analysis and risk mitigation	88.89% 16	11.11% 2	18	1.11

88,89% of participants answered yes to this subdomain.

Table 26: Business Domain, Subdomain I: Quality Improvement results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Effectively use risk management principles and programs, such as risk assessment and analysis and risk mitigation	88.89% 16	11.11% 2	18	1.11

Statement I1 had 94,44% of positive answers and I2 had 94,12%.

Table 27: Business Domain, Subdomain J: System Thinking results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Demonstrate an understanding of interdependency, integration and competition among healthcare sectors	88.89% 16	11.11% 2	18	1.11
2. Connect the interrelationships among access, quality cost, resource allocation, accountability and community need	88.89% 16	11.11% 2	18	1.11

Both statements had 88,89% of positive answers.

Table 28: Business Domain, Subdomain K: Supply Chain Management results

	YES	NO	TOTAL	WEIGHTED AVERAGE
1. Effectively manage the supply chain to achieve timelines and efficiency of inputs, materials, warehousing, and distribution so that supplies reach the end user in a cost-effective manner	66.67% 12	33.33% 6	18	1.33
2. Adhere to procurement regulations in terms of contract management and tendering guidelines	83.33% 15	16.67% 3	18	1.17
3. Effectively manage the interdependency and logistics of supply chain services within the organization	83.33% 15	16.67% 3	18	1.17

Statement K1 had 66,67% of positive answers and statements K2 and K3 had 88,33%.

4.3-Open questions results

At the end of each of the five domains structured questions (results depicted above), participants answered the following question: **In your opinion, did you have to acquire or improve any (domain identification) competency because of the accreditation process? (If yes, you may answer freely in English or Portuguese or use subdomain letters and numbers, ex: A1, B3, etc.).**

4.3.1-Domain Results

Bellow, results to the yes/ no question are represented in tables.

Participants who answered yes, in their opinion they acquired or improved competencies because of the accreditation process, were asked to write freely or use a correspondent subdomain letter and number for the competency statements.

A general table with all answers to each domain, participant position and accreditation can be found in the Annex part (Annex B).

Their answers were compiled in tables containing the participant number (answers in Portuguese were translated to English freely by the investigator). The correspondent competency when the participant chose to answer using the subdomain letter and statement number was transcribed according to the competency statement.

The answers were analyzed on the MAXQDA software, generating codes by word frequency (Appendix C). The *a priori* units were established based on the supporting theory and the directory design, being constituted by the five competency domains: Leadership, Communications and Relationship Management Competencies, Professional and Social Accountability, Health and Healthcare Environment, and Business Competencies.

In chapter 5 the codes are analyzed according to inference and context and organized in further unit categories, and the answers to both main questions of the survey are critically analyzed using descriptive analysis, content analysis, and triangulation, as stated in Chapter 3 - Methodology.

4.3.1.1-General results

Fifteen participants (71,42%) answered yes to at least one domain. Five participants (28%) answered no to all domains.

4.3.1.2- Domain 1: Leadership Competencies

Table 29: - Leadership Domain results

position	No	Yes	Total
CEO/Executive director	25,0 (1)	75,0 (3)	100,0 (4)
CMO/Medical Director	33,3 (1)	66,7 (2)	100,0 (3)
Consultant	100,0 (1)	0,0 (0)	100,0 (1)
COO/Director of Operations	100,0 (1)	0,0 (0)	100,0 (1)
Department Chief/Coordinator	50,0 (3)	50,0 (3)	100,0 (6)
Manager	0,0 (0)	100,0 (3)	100,0 (3)
quality control coordiator	0,0 (0)	100,0 (1)	100,0 (1)
Sales and marketing director	100,0 (1)	0,0 (0)	100,0 (1)
Senior consultant	0,0 (0)	100,0 (1)	100,0 (1)
Total	38,1 (8)	61,9 (13)	100,0 (21)

A total of 21 participants answered the question, 13 answered yes (61,9%) and 8 answered no (38,1%).

Table 30: Leadership Domain codes by frequency

Leadership competencies	Frequency	Percentage	Percentage (valid)
leadership	5	23,81	41,67
communication	5	23,81	41,67
inovation	3	14,29	25,00
management	3	14,29	25,00
diversity	3	14,29	25,00
encourage	3	14,29	25,00
improvement	3	14,29	25,00
support	3	14,29	25,00
diversity	3	14,29	25,00
conflict	2	9,52	16,67
DOCUMENTS with code(s)	12	57,14	100,00
DOCUMENTS without code(s)	9	42,86	-
ANALYZED DOCUMENTS	21	100,00	-

Ten codes were generated by answer analysis and coding by word frequency (table). One participant answered no to the question and answered the open question with the word “Portuguese” and was excluded, generating no code.

4.3.1.3- Communications and Relationship Management Competencies

Table 31: Communication and Relationship Domain results

position	No	Yes	Total
CEO/Executive director	50,0 (2)	50,0 (2)	100,0 (4)
CMO/Medical Director	33,3 (1)	66,7 (2)	100,0 (3)
Consultant	100,0 (1)	0,0 (0)	100,0 (1)
COO/Director of Operations	100,0 (1)	0,0 (0)	100,0 (1)
Department Chief/Coordinator	50,0 (3)	50,0 (3)	100,0 (6)
Manager	33,3 (1)	66,7 (2)	100,0 (3)
quality control coordiator	0,0 (0)	100,0 (1)	100,0 (1)
Sales and marketing director	0,0 (0)	100,0 (1)	100,0 (1)
Senior consultant	0,0 (0)	100,0 (1)	100,0 (1)
Total	42,9 (9)	57,1 (12)	100,0 (21)

A total of 21 participants answered the question, 12 answered yes (57,1%) and 9 answered no (42,9%).

Table 32: Communication and Relationship codes by frequency

Communications and Relationship Management	Frequency	Percentage	Percentage (valid)
techniques	5	23,81	45,45
negotiation	5	23,81	45,45
encourage	4	19,05	36,36
learning	3	14,29	27,27
innovation	3	14,29	27,27
communicating	3	14,29	27,27
support	3	14,29	27,27
listening	3	14,29	27,27
learning	2	9,52	18,18
influence	2	9,52	18,18
DOCUMENTS with code(s)	11	52,38	100,00
DOCUMENTS without code(s)	10	47,62	-
ANALYZED DOCUMENTS	21	100,00	-

Ten codes were generated. One participant answered yes to the question, but did not write in the open answer box, not generating a code.

4.3.1.4- Professional and Social Accountability

Table 33: Professional and Social Accountability Domain results -

position	No	Yes	Total
CEO/Executive director	75,0 (3)	25,0 (1)	100,0 (4)
CMO/Medical Director	33,3 (1)	66,7 (2)	100,0 (3)
Consultant	100,0 (1)	0,0 (0)	100,0 (1)
COO/Director of Operations	100,0 (1)	0,0 (0)	100,0 (1)
Department Chief/Coordinator	83,3 (5)	16,7 (1)	100,0 (6)
Manager	50,0 (1)	50,0 (1)	100,0 (2)
quality control coordiator	0,0 (0)	100,0 (1)	100,0 (1)
Sales and marketing director	0,0 (0)	100,0 (1)	100,0 (1)
Senior consultant	0,0 (0)	100,0 (1)	100,0 (1)
Total	60,0 (12)	40,0 (8)	100,0 (20)

A total of 20 participants answered the question, 12 answered no (60%) and 8 answered yes (40%).

Table 34: Professional and Social Accountability Domain codes by frequency

Profesional and Social Accountability	Frequency	Percentage	Percentage (valid)
ethical	3	14,29	42,86
safety	3	14,29	42,86
commitement	2	9,52	28,57
quality	2	9,52	28,57
leadership	1	4,76	14,29
DOCUMENTS with code(s)	7	33,33	100,00
DOCUMENTS without code(s)	14	66,67	-
ANALYZED DOCUMENTS	21	100,00	-

Five codes were generated. One participant answered yes, however, did not answer the question according to the topic and was not coded.

4.3.1.5- Health and Healthcare Environment

Table 35: Health and Healthcare Environment Domain results

position	No	Yes	Total
CEO/Executive director	75,0 (3)	25,0 (1)	100,0 (4)
CMO/Medical Director	33,3 (1)	66,7 (2)	100,0 (3)
Consultant	100,0 (1)	0,0 (0)	100,0 (1)
COO/Director of Operations	100,0 (1)	0,0 (0)	100,0 (1)
Department Chief/Coordinator	83,3 (5)	16,7 (1)	100,0 (6)
Manager	50,0 (1)	50,0 (1)	100,0 (2)
quality control coordiator	0,0 (0)	100,0 (1)	100,0 (1)
Sales and marketing director	0,0 (0)	100,0 (1)	100,0 (1)
Senior consultant	0,0 (0)	100,0 (1)	100,0 (1)
Total	60,0 (12)	40,0 (8)	100,0 (20)

A total of 20 participants answered the question, 12 answered no (60%) and 8 answered yes (40%).

Table 36: Health and Healthcare Environment Domain codes by frequency

Health and Healthcare Enviroment	Frequency	Percentage	Percentage (valid)
indicators	2	9,52	50,00
healthcare	2	9,52	50,00
analyse	2	9,52	50,00
services	2	9,52	50,00
health	1	4,76	25,00
all	1	4,76	25,00
DOCUMENTS with code(s)	4	19,05	100,00
DOCUMENTS without code(s)	17	80,95	-
ANALYZED DOCUMENTS	21	100,00	-

Three participants answered yes, but didn`t provide a written answer. One participant answered out of context and was not coded.

4.3.1.6-Business Competencies

Table 37: Business Domain results

position	Yes	No	Total
CEO/Executive director	0,0 (0)	100,0 (3)	100,0 (3)
CMO/Medical Director	33,3 (1)	66,7 (2)	100,0 (3)
Consultant	100,0 (1)	0,0 (0)	100,0 (1)
COO/Director of Operations	0,0 (0)	100,0 (1)	100,0 (1)
Department Chief/Coordinator	20,0 (1)	80,0 (4)	100,0 (5)
Manager	33,3 (1)	66,7 (2)	100,0 (3)
quality control coordiator	100,0 (1)	0,0 (0)	100,0 (1)
Senior consultant	0,0 (0)	100,0 (1)	100,0 (1)
Total	27,8 (5)	72,2 (13)	100,0 (18)

A total of 18 participants answered the question, 13 answered no (72,2%) and 5 answered yes (27,8%).

Table 38: Business Domain codes by frequency

Business Competencies	Frequency	Percentage	Percentage (valid)
financial	1	4,76	33,33
metrics	1	4,76	33,33
All	1	4,76	33,33
DOCUMENTS with code(s)	3	14,29	100,00
DOCUMENTS without code(s)	18	85,71	-
ANALYZED DOCUMENTS	21	100,00	-

Two participants who answered yes did not provide a written answer.

5. Result Analysis

In this session, results will be analyzed and on session 6 the results´ discussion will be conducted.

Results show that the great majority of competency statements were identified by participants as supportive to drive their organizations towards reaching accreditation

status. Because of the high rate of positive answers, 80% of “yes” to one statement was considered the cut.

When considering the Leadership Skills and Behavior Domain, all statements had at least 85% of positive answers to a given statement.

The Communications Skills and Engagement Domain had at least 90% of positive answers to any given statement, but A4, “Demonstrate understanding of the function of media and public relations” (75% of positive answers).

The Professional and Social Accountability Domain had at least 80 % of positive individual statement answers, except for statement A4, “Practice due diligence in carrying out fiduciary responsibilities” (57,14% of positive answers).

The Health and Healthcare Environment Domain had at least 80% of positive answers except for statement D1, “Establish goals and objectives for improving health outcomes that incorporate an understanding of the social determinants of health and of the socioeconomic environment” (78,95% of positive answers).

Finally, The Business Competencies Domain, had at the highest rate of statements with “no” answers (5 statements): C2, “Use principles of project, operating and capital budgeting” (72,22% of positive answers); D2, “Effectively manage departmental human resource processes, including performance appraisals, incentives, staff recruitment, selection and retention, training and education, motivation, coaching and mentoring and productivity measures”(72,22% of positive answers); E1, “ Interpret public policy, legislative and advocacy processes with the organization”(76,47% of positive answers); F1, “Lead the development of key planning documents, including strategic plans, business services plans and business cases for new services”(77,78% of positive answers) and K1, “Effectively manage the supply chain to achieve timelines and efficiency of inputs, materials, ware housing, and distribution so that supplies reach the end user in a cost-effective manner (66,67% of positive answers).”

It is interesting to notice, as reported on session 4, that the majority of “no” answers are from Department Chiefs/Coordinators and Managers. In Brazil these roles, specially the Department Chief/Coordinators, are more active locally within a certain area of the institution, such as Emergency room, Intensive care units, Ambulatorial services, or, in

the case of Managers, may not be part of strategic and business decisions. These roles may also be directly linked to the provision of care to patients and, although demanding leadership, communication and analytical skills, are not directly evaluated against accreditation standards on organization governance, leadership and business practices, but by standards related to patient care, such as the establishment of healthcare delivery practices and processes, critical analysis of events and of indicators related to healthcare delivery outcomes.

Considering higher hierarchical roles, such as C-level executives and Directors their roles are not directly involved with the delivery of care, except when considering CMOs and Medical Directors, who do have participation in strategy and some business decisions, but also participate in clinical decisions regarding healthcare delivery.

Some of the competencies that received the highest rate of "no" answers may also not be directly related to the accreditation standards and processes *per se*, such as understanding the function of media and public relations. In the case of this survey the participant's interpretation subdomain D1 (Public Health) may be hindered, since all subjects are from private institutions and the word "public" may carry a connotation to the participants.

When analyzing the second part of the survey, which contain the open questions concerning if competencies were improved or acquired because of the accreditation process, an interesting connection with the first part of the survey is noticed.

The domains that had some of the highest "yes" answers in the first part are also the domains being acknowledged in the second part as the domains which involved competency learning and /or improvement, and the Business Domain was also the domain with the lowest "yes" rates (27,8%). Another pattern was repeated, with the majority of "no" answers being from Department Chiefs/Coordinators on all domains, and from managers in the Business domain. Half of the Department Chiefs/ Coordinators did not answer any questions, even the yes/no options in this domain. This has an interesting connotation which is consistent with the theoretical model of competency development, where competency acquirement is linked to task performance and experience, in this case, related to going through the accreditation process and being in roles that may note require business competencies.

When analyzing the content of the open answers, session 4 shows the units achieved by word count. Using inference technique and also considering context, content, and answers from the first part of the survey, the participant's perceptions also relate to the results of the first session, where there is a predominance of competencies from the Leadership and Communications Domains, with 61,9% and 57,1% of the participants, respectively, answering yes, in their opinion they have learned or acquired competencies through the accreditation process. Accordingly, by word count, more codes were generated on those units.

After categorization, two main themes related to what the participants have learned/improved were created as follow: 1. Communication and Leadership Techniques, Skills and Abilities, including the words encourage, support, influence, listening, communicating, leadership, ethical. 2. Management Techniques, Skills and Abilities, including the words negotiation, management, improvement, innovation, analyze and indicators. Even though some of the words are not more frequent on word count if looked at from an isolated perspective, they relate to one another considering the context and the *a priori* units. The findings will be discussed in the next chapter.

There was no difference in results for both questions when considering type of accreditation.

6. Discussion

Healthcare management competencies is an important subject, considering the complex structure and operation of healthcare institutions and the continuing changes in the healthcare environment. One important aspect to notice is that healthcare management education varies around the world and in some places is not regulated. Many competency models have been established over the years and as a result the Global Directory was established with the validation of over 40 healthcare management societies from around the world that established the Global consortium healthcare Management Professionalization, led by IHF, in an attempt to homogenize health care management education and with the purpose to be used to promote healthcare management professionalization.

Despite many cultural and managerial differences found in healthcare institutions around the world, one point many have in common is accreditation, which is considered a staple in the industry and represents a certification of quality, higher health standards, provides competitive advantage and is also considered a differential by patients, the media, governmental regulatory agencies, providers, suppliers, and payer sources.

Results in this study are similar to the findings from other previous studies that stablish a relationship between accreditation and leadership competencies (Hincliff, 2014; Braithwait, 2009; Greenfiled, 2008).

Accreditation can be considered a complex intervention and an organizational change process, especially in institutions going through their first certification evaluation. Team work and synergy between different areas and positions is necessary during accreditation, because even though some standards relate to practices which may be specific to one area within the institution, such practices from that specific area may affect others directly, as in healthcare institutions there must be a coordination between services, for example, considering a patient that is in an inpatient unit and is going to go through surgery, there must be an interaction between practices, fluxes, protocols and continuity of care between the inpatient unit and the surgical center. High leadership and governance practices are also included in the standards being evaluated in different types of accreditation programs and are directly related to organizational culture and climate, affecting all areas of the institution. Some other standards refer to practices that must be observed in all areas or sectors of the institution, in health delivery setting, such as standards related t event notification and analysis, hand sanitation, patient identification, and organizational settings, such as the establishment of communication and ethical policies, leadership and teamwork practices, among others. Collectively, different competencies from different individuals contribute to the pool of organizational competencies which drive the institution to achieve its goals, in this case, accreditation certification.

Leggat (2007) suggests that different levels of management in the healthcare industry will require different competencies and that more senior roles focus more on output related to organizational change and adaptation, whilst junior and middle levels are more prone to manage technical operation aspects and human resource management, which was observed according to the results found here.

As pointed out by the results in this study, Department Chiefs/ Coordinators tended to have a higher rate of negative answers to competencies that are linked directly to business and strategic competencies and also the highest rate of negative answers to the second part of the survey relative to the learning aspect of the accreditation process. Competencies associated with “Contextual performance”, defined by Motowidlo (1997) are related to behaviors, endorsement of common objectives, helping and cooperating with others and shape the organizational and social contexts which are found to be common ground to all hierarchical levels. Also, according to Motowidlo (1997), task performance activities usually involve variation between roles, whilst activities involved with contextual performance are often similar. Basterrechea (2019) also states that competencies are mobilized at different times and for different purposes and are linked to contextual factors. competencies complement practices, which in turn cover a field of common competencies.

When looking at these differences, the range of proficiency and expertise varies across career stages (Calhoun, 2002), which also support the differences noticed in this study.

One must also consider that some competencies listed may be very specific, such as “Effectively manage the supply chain to achieve timelines and efficiency of inputs, materials, ware housing, and distribution so that supplies reach the end user in a cost-effective manner.”, which received one of the highest rates of negative answers from all hierarchical groups. Even though management of the supply chain is evaluated by accreditation standards and CEO´s and COO´s must have knowledge over the supply chain, this competency and the actual skills and abilities to perform the tasks necessary to achieve desired performance are directly evaluated on site during accreditation evaluation in the hospital pharmacy or warehouse, for example, and the people that work there are interviewed and the processes and practices are assessed against the standards. Not all managers and leaders will be directly evaluated on this standard and their perception of it not being necessary to achieve accreditation is directly linked to their roles within the institution.

Looking at the competencies listed in the GD, it is also important to notice that they are interconnected by the common theme of leadership, as depicted on figure 2. Achieving accredited status is an arduous and multifaceted process and demands a lot from leaders

in mobilizing others for achieving objectives, characteristics that can only be expressed at high levels of competence. All domains are interconnected with this central theme. Of the 80 competency statements, only 8 statements received less than 80 % of positive answers, demonstrating the link and connection between them. The cut at 80% was established because no statement received less than 50% of positive answers and this cut showed the difference between perceptions considering different levels.

When considering the second part of the survey, concerning the participant's impressions on accreditation leading to the acquirement and/ or improvement of competencies through the accreditation process, results also establish a link between leadership being the common ground of the competencies listed and show a link between "acting" the competencies and improving them or acquiring them after going through an experience and performing specific tasks. Murray (2003) states that when practices that create and reinforce behavior change are in place, competencies become actionable and are learned and leadership enables the creation of competencies overtime.

The Leadership Competencies Domain and the Communications Domain received the highest positive answers, suggesting that they were not only needed to achieve accreditation as according to the results in the first session of the survey, but also that the accreditation process has enabled their improvement and acquirement. The majority of the participants in this study (71,42%) have the opinion that the accreditation process leads to the acquirement or improvement of competencies in at least one Domain.

The open questions, after content analysis, were grouped into two themes: 1. Communication and Leadership Techniques, Skills and Abilities, 2. Management Techniques, Skills and Abilities.

Considering the theory behind change process in organizations, the themes and codes found in this study relate with the phases of organizational planned change process found in different models that were discussed on the literature session and reinforce previous studies that consider accreditation a change process, also discussed on the literature review. The table below (table number) show the parallels established between theory and the codes and themes generated after content analysis of the open questions.

Table 39: Parallels between themes found and theory on Change Management

Lewins (1947)	Unfreezing	Moving to next level	Freezing
Battilana (2010)	Communicate need of change	Mobilize others	Evaluate Change implementation
Kotter (1996)	Establish need of change, Communicate change vision, develop vision and strategy	Empower action, Generate short term wins	Consolidate gains, Anchor new approaches
Communication and Leadership Techniques Skills and Abilities	Encourage, Influence,Leadership, Communicating	Support, Influence, Encourage, Leadership	Ethical
Management Techniques, Skills and Abilities	Negotiation, Improvement, Innovation	Negotiation, improvement, Innovation	Management, analyze, indicators

Source: Made by the author

Innovation may be a commonly perceived as the acquirement of new technologies, but it is defined as new ways of improving health outcomes, efficiency, user´s experience, and coast effectiveness through the implementation of new set of behaviors, processes and routines (Greenhalg, 2004).

During the accreditation process, managers must exert their leadership and communications competencies not only to communicate and set the organization direction towards a common goal, but also to keep people motivated, to be able to negotiate concessions and the implementation of changes with medical staff and other stakeholders, have proper management competencies to be able to analyze the new processes and routines being implemented in a critical way leading to continuous quality

improvement through the use of analysis tools and indicators. Leadership plays a major role in organizational change, and according to Andriukaitiene (2017, p.220): *"leadership is seen as a process, in which the leader affects others in a way that they could move towards a suitable direction and achieve overall objectives of the organization, but becoming a leader requires continuous learning and experience, in other words, there is a need to acquire the appropriate competencies"*. The same author also has an interesting point of view, in which leadership in the context of organizational management is not the main process but is the competency necessary for successful performance. Achieving accredited status is an arduous and multifaceted process and demands a lot from leaders in mobilizing others to achieve objectives, characteristics that can only be expressed at high levels of competence.

Murray (2003) describes that learning occurs when there is a challenge for existing routines and through the development of new mental models and that cycles of continuous improvement and adaptive learning happen through new routines. This can be observed during the accreditation process, which leads to behavioral change and the learning systems that are created through the process lead to competency development.

Basterrechea (2019) conducted a study that also uses the GD as a tool with the objective of finding out which practices are complimentary to the Leadership Competencies and the Communication and Relationship Domains. In this study, practices were defined as a verbal form and consensus was obtained using the Delphi technique using healthcare management experts. Her results show a similarity to some of the codes found in this study, with practices such as communicating, engaging and promoting change being complimentary to competencies.

It is very important to emphasize that, even though this study confirms that competencies and their use are task and position oriented, the institutions in this survey have already reached accredited certification. This reinforces the concept of collective competencies representing organizational competencies that are necessary to achieve a goal. Accreditation seems to be one of the goals that mobilize organizations toward a change process and as a complex intervention mobilizes various competencies and is also associated with competency learning, acquirement and improvement.

7. Conclusions

This study was the first one to identify healthcare manager´s competencies through accreditation using the GD. Results suggest that from the 80 competency statements present in the GD, only 8 statements were not considered supportive to achieve accredited status, considering a cut of 80% of positive answers to an individual statement. Differences in answers may be due to the different roles, responsibilities, tasks individuals with different hierarchical positions have in the institution and also to standards being evaluated by accreditation.

71,42% of the participants also agree, according to their perception, that the accreditation process is associated with the acquirement and improvement of competencies present in at least one domain of the GD. The findings using qualitative analyses suggest that these competencies are linked to the change process that takes place during accreditation and also to competency acquirement theory. Both sessions of the survey also confirm findings in the literature that suggest that leadership, and communications and relationship competencies are linked to the accreditation process and to individual and organizational competencies that lead to the achievement of goals and effective performance in different settings.

7.1. Limitations

The survey was submitted in English and all the participants are Portuguese native speakers, except by one whose native language is English. This may have hindered comprehension of terms and competency statement significance and context. Only individuals from private institutions were interviewed, and cultural and organizational differences may play a role when analyzing competencies in public institutions contexts. Cultural differences may be expected from individuals in healthcare managing positions from different countries and with different background education. The group represented in this sample contained over 80% of Medical Doctors as a primary education degree. Another consideration pertains to the sample size, which was not representative enough to use statistical tools for analysis. Finally, the author has been working as a healthcare manager that has occupied different hierarchical positions in the healthcare systems

represented in the sample, from technical to executive roles, has participated in two accreditation processes leading to certification while in these positions, and has worked as an accreditation surveyor for two of the methodologies represented in this study: ONA and Qmentum International. The literature on scientific analysis methodology, especially in qualitative methods, show conflicting views when this is the case, with some authors seeing advantages regarding the investigator expertise and superior analysis capacity due to personal experience, and others referring to the possibility of a biased analysis due to preconceived ideas. It is also important to notice that while accreditation bodies have set standards, there is not a set of tools, protocol or management techniques set by the accrediting bodies which institutions have to follow to achieve accredited status. Each institution is encouraged to "find its path" to reach standard conformity, therefore different institutions and managers may use different competencies depending on how they approach the standards.

8.Aplicability and Recommendations

Results suggest that what competencies are needed or necessary to achieve accreditation. Since accreditation is a complex intervention, have costs associated and is time consuming, custom training and continuous education programs can be designed according to the necessary competencies needed by different level healthcare managers of institutions going through the accreditation. These programs may be internal or even be included in healthcare management graduation programs. Human resources in the institutions and team building can also be guided according to competency models based on specific needs during the accreditation process. As accreditation is considered a staple in the healthcare industry and institutions and organizations go through the process all over the world, the competencies listed in the directory and the accreditation process itself, according to the results here, provide a common comparison base for the development of new research protocols, comparing different countries and settings going through the same process and therefore being able to study where and how these differences in management impact performance and care delivery. This study was made retrospectively, and another suggestion is to do prospective studies where observation of competency use, and development can be examined. Research containing a larger number

of participants to obtain statistical analysis, and studies comparing answers from managers and executives' different countries is also advised to determine the influence of culture, education and country economic and social development on competency use and development.

Another important step is to map the GD competencies against accreditation standards to access the necessary competencies. This way an objective view of what is covered can be achieved.

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Appendix A- Global Directory Domains, Subdomains and Statements

DOMAIN 1: LEADERSHIP COMPETENCIES

SUBDOMAIN A: LEADERSHIP SKILLS AND BEHAVIOR

Articulate and communicate the mission, objectives, and priorities of the organization;

Incorporate management techniques and theories into leadership activities;

Analyze problems, promote solutions and encourage decision making

SUBDOMAIN B: ENGAGING CULTURE AND ENVIRONMENT

Create an organizational climate built on trust, transparency, focus on improvement and that encourages teamwork and diversity;

Encourage high-level commitment from employees by communicating vision and goals;

Hold self and others accountable to surpass organizational goals;

SUBDOMAIN C: LEADING CHANGE

Promote ongoing learning and improvement in the organization;

Respond to need for change and lead change process

SUBDOMAIN D: DRIVING INNOVATION

Encourage diversity of thought to support innovation, creativity, and improvement

DOMAIN 2: COMMUNICATIONS AND RELATIONSHIP MANAGEMENT COMPETENCIES

SUBDOMAIN A: RELATIONSHIP MANAGEMENT

Demonstrate the ability to develop and sustain positive and effective stakeholder relationships;

Practice and value transparent shared decision making and understand its impacts;

Demonstrate collaborative techniques for engaging and working with stakeholders

SUBDOMAIN B: COMMUNICATION SKILLS AND ENGAGEMENT

Exercise cultural sensitivity in internal and external communications;

Demonstrate strong listening and communication skills;

Demonstrate collaborative techniques for engaging and working with stakeholders;

Demonstrate an understanding of the function of media and public relations

SUBDOMAIN C: FACILITATION and NEGOTIATION

Manage conflict through mediation, negotiation, and other techniques;

Demonstrate problem-solving skills

Build and participate in effective multidisciplinary teams

DOMAIN 3: PROFESSIONAL AND SOCIAL RESPONSABILITY COMPETENCIES

SUBDOMAIN A: PERSONAL AND PROFESSIONAL ACCOUNTABILITY

advocate for and participate in healthcare policy initiatives;

Advocate for rights and responsibilities of patients and their families

Demonstrate an ability to understand and manage conflict-of-interest situations, as defined by organizational bylaws, policies and procedures;

Practice due diligence in carrying out fiduciary responsibilities;

Promote quality, safety of care and social commitment in the delivery of health services

SUBDOMAIN B: PROFESSIONAL DEVELOPMENT AND LIFELONG LEARNING

Demonstrate commitment to self-development including continuing education, networking, reflection and personal improvement

SUBDOMAIN C: CONTRIBUTIONS TO THE PROFESSION

Contribute to advancing the profession of healthcare management by sharing knowledge and experience.

Develop others by mentoring, advising, coaching or serving as a role model.

Support and mentor high potential talent

SUBDOMAIN D: SELF-AWARENESS

Be aware of one´s assumptions, values, strengths and limitations;

Demonstrate reflective leadership by using self-assessment and feedback from others in decision making

SUBDOMAIN E: ORGANIZATIONAL DYNAMICS AND GOVERNANCE

Demonstrate high ethical conduct, a commitment to transparency and accountability for one´s actions.

Use the established ethical structures to resolve ethical issues.

Maintain a balance between personal and professional accountability, recognizing that the central focus is the need of the patient/community

DOMAIN 4: HEALTH AND HEALTHCARE ENVIRONMENT COMPETENCIES

SUBDOMAIN A: HEALTH SYSTEMS AND ORGANIZATIONS

Demonstrate understanding of system structure, funding mechanisms and how healthcare services are organized.

Balance interrelationships among access, quality, safety, cost, resource allocation, accountability, care setting, community needs and professional roles;

Assess the performance of the organization as part of the health system/healthcare services;

use monitoring systems to ensure legal, ethical and quality standards are met in clinical, corporate and administrative functions

SUBDOMAIN B: HEALTH WORKFORCE

1.Demonstrate ability to optimize the healthcare workforce around local critical force issues, such as shortages, scope of practice, skill mix, licensing and fluctuations in service

SUBDOMAIN C: PERSON-CENTERED HEALTH

Effectively recognize and promote patients and their family´s/caregiver´s perspectives in the delivery of healthcare;

Include the perspective of individuals, families and the community as partners in healthcare decision-making processes, respecting cultural differences and expectations

SUBDOMAIN D: PUBLIC HEALTH

Establish goals and objectives for improving health outcomes that incorporate an understanding of the social determinants of health and the socio-economic environment

Use statistics and health indicators to guide decision making and analyze health trends of the population to guide the provision of health services;

Manage risks, threats, and damage to health during disasters, emergency situations;

Evaluate Critical processes connected with public health surveillance and controls systems and communicate relevant information to increase response to risks, threats, and damage to health;

Recognize the local implications of global health events and their impact on population health conditions

DOMAIN 5: BUSINESS COMPETENCIES

SUBDOMAIN A: GENERAL MANAGEMENT

1. Demonstrate knowledge of basic business practices, such as business plans, contracting, project management;

2. Collate relevant data and information, analyze and evaluate this information to support or make an effective decision or recommendation;

3. Seek information from various sources to support organizational performance, analyze and prioritize requirements

SUBDOMAIN B: LAWS AND REGULATIONS**.**

1. Abide by laws and regulations applicable to the work of the organization

SUBDOMAIN C: FINANCIAL MANAGEMENT

1.Effectively use key accounting principles and financial management tools, such as financial plans and measures of performance;

2. Use principles of project, operating and capital budgeting;

3. Plan, organize, execute and monitor the resources of the organization to ensure optimal health outcomes and effective quality and cost controls

SUBDOMAIN D: HUMAN RESOURCE MANAGEMENT**.**

1. Provide leadership in defining staff roles and responsibilities, developing appropriate job classification/grading systems and workforce planning;

2. Effectively manage departmental human resource processes, including performance appraisals, incentives, staff recruitment, selection and retention, training and education, motivation, coaching and mentoring and productivity measures

SUBDOMAIN E: ORGANIZATIONAL DYNAMICS AND GOVERNANCE**.**

1. Demonstrate knowledge of governmental, regulatory, professional and accreditation agencies;

2. effectively apply knowledge of organizational systems theories and behaviors;

3. Interpret public policy, legislative and advocacy processes within the organization

SUBDOMAIN F: STRATEGIC PLANNING AND MARKETING**.**

1. lead the development of key planning documents, including strategic plans, business services plan and business cases for new services;

2. Plan for business continuity in the face of potential disasters that could disrupt service delivery;

3. Develop and monitor operating-unit strategic objectives that are aligned with the mission and strategic objectives;

4. Evaluate whether a proposed action aligns with the organizational business/strategic plan

SUBDOMAIN G: INFORMATION MANAGEMENT**.**

1. Uses data sets to asses performance, stablish targets, monitor indicators and trends and determines if deliverables are met;

2. Ensure that applicable privacy and security requirements are upheld;

3. Ensure optimal use of information and trend analysis within the organization through the use of business intelligence, information management, clinical and business systems;

4. Promote effective management, analysis and communication of health information

SUBDOMAIN H: RISK MANAGEMENT

1. Effectively use risk management principles and programs, such as risk assessment and analysis and risk mitigation

SUBDOMAIN I: QUALITY IMPROVEMENT.

1. Develop and implement quality assurance, satisfaction, patient safety programs according to quality and patient safety initiatives;

2. develop and track indicators to measure quality outcomes, satisfaction and patient safety, and plan continuous improvement.

SUBDOMAIN J: SYSTEM THINKING.

1. demonstrate an understanding of interdependency, integration and competition among healthcare sectors;

2. Connect the interrelationships among access, quality cost, resource allocation, accountability and community need

SUBDOMAIN K: SUPPLY CHAIN MANAGEMENT.

1. Effectively manage the supply chain to achieve timelines and efficiency of inputs, materials, warehousing, and distribution so that supplies reach the end-user in a cost-effective manner;

2. Adhere to procurement regulations in terms of contract management and tendering guidelines;

3. effectively manage the interdependency and logistics of supply chain services within the organization

Appendix B: The Survey

Identifying Competencies Through Health Services Accreditation Process

Survey Description

This survey will be used in my dissertation, which will be presented as a requirement to obtain the title of Master of Science in Management from ISCTE Business School, in Portugal.

The objective is to identify competencies that are used/needed by healthcare executives and managers to drive their organizations to obtain accreditation. The subjects of this survey are presidents/vice-presidents, C-level executives, directors, managers and department chiefs/heads of healthcare institutions and systems that have obtained accreditation by ONA, Qmentum International/Canadian Accreditation or Joint Commission International.

Competencies may be defined as a sum of skills, knowledge, and abilities (or attitudes) that enable an individual to act effectively and efficiently to achieve best performance.

This survey is based on the Global Healthcare Management Competency Directory, organized by The Global Consortium for Healthcare Management Professionalization, available at https://www.healthmanagementcompetency.org/base

The competencies are organized in five domains and twenty-nine subdomains with statements. Each subdomain contains yes/no multiple choice questions and each domain has an open question at the end of the session. Please, feel free to write your perceptions.There is no right answer , your perception is what counts. You may write in Portuguese , if you wish to. If you think the question doesn´t apply to you, answer "no" and if you are not sure, answer "don´t know". The estimated time for completion is 10-15 minutes.

By accepting to answer this survey, you acknowledge the objectives of this research and that you are participating voluntarily. Your personal data is confidential and will not be disclosed at any time in this study or to third parties.

* Please enter your email address.

1

Identifying Competencies Through Health Services Accreditation Process

Session 1: General Information

* Type of Institution you work/worked when the Accreditation process took place

- ◯ Hospital
- ◯ Clinic

Other (please specify)

* Type of Accreditation achieved (if more than one, check the most recent)

- ◯ ONA 1
- ◯ ONA 2
- ◯ ONA 3
- ◯ Qmentum International/Canadian Accreditation
- ◯ Joint Commission International

* Your position in the organization at the time the accreditation process took place

- ◯ President/Vice-president
- ◯ CEO/Executive director
- ◯ CMO/Medical Director
- ◯ COO/Director of Operations
- ◯ Manager
- ◯ Department Chief/Coordinator
- ◯ Other (please specify)

2

* What is your primary degree (eg: medicine, administration, nursing, etc.)?

* Could you briefly describe your role in the accreditation process?

	Yes	No
Did you lead or are you leading the preparation of the institution for accreditation?	◯	◯
Were you directly involved in the accreditation process?	◯	◯

If yes, were you involved in the whole process leading to final accreditation? (yes or no)

If you were directly involved, how would you briefly describe your role ? (eg: Strategic, Technical, focused in one specific department or demand, leadership of teams, Consulting role, etc.) Please feel free to describe.

Identifying Competencies Through Health Services Accreditation Process

Session 2: Healthcare Management Competencies

Please read the following competencies and check the box "Yes" for all competencies that in your opinion are/were supportive/necessary, (for your position in the organization) to better drive an organization in meeting accreditation requirements. Check "No" if you consider that competency has no influence on achieving accreditation.

3

Identifying Competencies Through Health Services Accreditation Process

Domain 1: Leadership Competencies

* SUBDOMAIN A: LEADERSHIP SKILLS AND BEHAVIOR

	Yes	No
1. Articulate and communicate the mission, objectives, and priorities of the organization	○	○
2. Incorporate management techniques and theories into leadership activities	○	○
3. Analyze problems, promote solutions and encourage decision making	○	○

4

* SUBDOMAIN B: ENGAGING CULTURE AND ENVIRONMENT

	Yes	No
1. Create an organizational climate built on trust, transparency, focus on improvement and that encourages teamwork and diversity	○	○
2. Encourage high-level commitment from employees by communicating vision and goals	○	○
3. Hold self and others accountable to surpass organizational goals	○	○

* SUBDOMAIN C: LEADING CHANGE

	Yes	No
1. Promote ongoing learning and improvement in the organization	○	○
2. Respond to need for change and lead change process	○	○

5

* SUBDOMAIN D: DRIVING INNOVATION

	Yes	No
1. Encourage diversity of thought to support innovation, criativity and improvement	○	○

* In your opinion, did you have to acquire or improve any Leadership competencies because of the accreditation process? (If yes, you may answer freely in English or Portuguese or use subdomain letters and numbers, eg: A1, B3, etc.)

○ Yes

○ No

If yes, which competencies? You may answer freely in English or Portuguese or use subdomain letters and numbers, eg: A1, B3, etc.

Identifying Competencies Through Health Services Accreditation Process

Domain 2: Communication and Relationship Management Competencies

6

* SUBDOMAIN A: RELATIONSHIP MANAGEMENT

	Yes	No
1. Demonstrate the ability to develop and sustain positive and effective stakeholder relationships	○	○
2. Practice and value transparent shared decision making and understand its impacts	○	○
3. Demonstrate collaborative techniques for engaging and working with steakholders	○	○

7

* SUBDOMAIN B : COMMUNICATION SKILLS AND ENGAGEMENT

	Yes	No
1. Exercise cultural sensitivity in internal and external communications	○	○
2. Demonstrate strong listening and communication skills	○	○
3. Demonstrate collaborative techniques for engaging and working with stakeholders	○	○
4. Demonstrate understanding of the function of media and public relations	○	○

* SUBDOMAIN C: FACILITATION and NEGOCIATION

	Yes	No
1. Manage conflict through mediation, negotiation and other techniques	○	○
2. Demonstrate problem solving skills	○	○
3. Build and participate in effective multidisciplinary teams	○	○

8

* In your opinion, did you have to acquire or improve any Communications and Relationship Management Competencies because of the accreditation process?

- ◯ Yes
- ◯ No

If yes, which competencies? You may answer freely in English or Portuguese or use subdomain letters and numbers, eg: A1, B3, etc.

Identifying Competencies Through Health Services Accreditation Process

Domain 3: Professional and Social Responsibility Competencies

9

* SUBDOMAIN A: PERSONAL AND PROFESSIONAL ACCOUNTABILITY

	Yes	No
1. Advocate for and participate in healthcare policy initiatives	○	○
2. Advocate for rights and responsabilities of patients and their families	○	○
3. Demonstrate an ability to understand and manage conflicy-of-interest situations, as defined by organizational bylaws, policies and procedures	○	○
4. Practice due diligence in carrying out fiduciary responsabilities	○	○
5. Promote quality, safety of care and social commmitement in the delivery of health services	○	○

10

* SUBDOMAIN B: PROFESSIONAL DEVELOPMENT AND LIFELONG LEARNING

	Yes	No
1. Demonstrate commitement to self-development including continuing education, networking, reflection and personal improvement	○	○

* SUBDOMAIN C: CONTRIBUTIONS TO THE PROFESSION

	Yes	No
1. Contribute to advancing the profession of healthcare management by sharing knowledge and experience	○	○
2. Develop others by mentoring, advising, coaching or serving as a role model	○	○
3. Support and mentor high potential talent	○	○

11

* SUBDOMAIN D: SELF-AWARENESS

	Yes	No
1. Be aware of one´s own assumptions, values, strenghts and limitations	○	○
2. Demonstrate reflective leadership by using self-assessment and feedback from others in decision making	○	○

* SUBDOMAIN E: ORGANIZATIONAL DYNAMICS AND GOVERNANCE

	Yes	No
1. Demonstrate high ethical conduct, a commitment to transparency and accountability for one's actions	○	○
2. Use the established ethical structures to resolve ethical issues	○	○
3. Maintain a balance between personal and professional accountability, recognizing that the central focus is the need of the patient/community	○	○

12

* In your opinion, did you have to acquire or improve any Professional and Social Responsability Competencies because of the accreditation process?

- ◯ Yes
- ◯ No

If yes, which competencies? You may answer freely in English or Portuguese or use subdomain letters and numbers, eg: A1, B3, etc.

Identifying Competencies Through Health Services Accreditation Process

Domain 4: Health and Healthcare Environment Competencies

13

* SUBDOMAIN A: HEALTH SYSTEMS AND ORGANIZATIONS

	Yes	No
1. Demonstrate understanding of system structure, funding mechanisms and how healthcare services are organized	○	○
2. Balance interrelationships among access, quality, safety, cost, resource allocation, accountability, care setting, community needs and professional roles	○	○
3. Assess the performance of the organization as part of the health system/healthcare services	○	○
4. use monitoring systems to ensure legal, ethical and quality standards are met in clinical, corporate and administrative functions	○	○

14

* SUBDOMAIN B: HEALTH WORKFORCE

	Yes	No
1. Demonstrate ability to optimize the healthcare work force around local critical force issues, such as shortages, scope of practice, skill mix, licensing and fluctuations in service	○	○

* SUBDOMAIN C: PERSON-CENTERED HEALTH

	Yes	No
1. Effectively recognize and promote patients and their family ´s/caregiver´s perspectives in the delivery of healthcare	○	○
2. Include the perspective of individuals, families and the community as partners in healthcare decision-making processes, respecting cultural differences and expectations	○	○

15

* SUBDOMAIN D: PUBLIC HEALTH

	Yes	No
1. Establish goals and objectives for improving health outcomes that incorporate an understanding of the social determinants of health and of the socioeconomic enviroment	○	○
2. Use statistics and health indicators to guide decision making and analyse health trends of the population to guide provision of health services	○	○
3. Manage risks, threats, and damage to health during disasters, emergency situations	○	○

16

	Yes	No
4. Evaluate Critical processes connected with public health survaillance and controls systems and communicate relevant information to increase response to risks, threats, and damage to health	○	○
5. Rrecognize the local implications of global health events and its impact on population health conditions	○	○

* In your opinion, did you have to acquire or improve any Health and Healthcare Environment Competencies because of the accreditation process?

○ Yes

○ No

If yes, which competencies? You may answer freely in English or Portuguese or use subdomain letters and numbers, eg: A1, B3, etc.

17

Identifying Competencies Through Health Services Accreditation Process

Domain 5: Business Competencies

*** SUBDOMAIN A: GENERAL MANAGEMENT**

	Yes	No
1. Demonstrate knowledge of basic business practices, such as business plans, contracting, project management	○	○
2. Collate relevant data and information, analyse and evaluate this information to support or make an effective decision or recommendation	○	○
3. Seek information from various sources to support organizational performance, analyse and prioritize requirements	○	○

18

* SUBDOMAIN B: LAWS AND REGULATIONS

	Yes	No
1. Abide by laws and regulations applicable to the work of the organization	○	○

* SUBDOMAIN C: FINANCIAL MANAGEMENT

	Yes	No
1. Effectively use key accounting principles and financial management tools, such as financial plans and measures of performance	○	○
2. Use principles of project, operating and capital budgeting	○	○
3. Plan, organize, execute and monitor the resources of the organization to ensure optimal health outcomes and effective quality and cost controls	○	○

19

* SUBDOMAIN D: HUMAN RESOURCE MANAGEMENT

	Yes	No
1. Provide leadership in defining staff roles and responsabilities, developing appropriate job classification/grading systems and workforce planning	○	○
2. Effectively manage departamental human resource processes, including performance appraisals, incentives, staff recruitment, selection and retention, training and education, motivation, coaching and mentoring and productivity measures	○	○

20

* SUBDOMAIN E: ORGANIZATIONAL DYNAMICS AND GOVERNANCE

	Yes	No
1. Demonstrate knowledge of governmental, regulatory, professional and accreditation agencies	○	○
2. Effectively apply knowledge of organizational systems theories and behaviors	○	○
3. Interpret public policy, legislative and advocacy processes within the organization	○	○

21

* SUBDOMAIN F: STRATEGIC PLANNING AND MARKETING

	Yes	No
1. lead the development of key planning documents, including strategic plans, business services plans and business cases for new services	◯	◯
2. Plan for business continuity in the face of potential disasters that could disrupt service delivery	◯	◯
3. Develop and monitor operating-unit strategic objectives that are aligned with the mission and strategic objectives	◯	◯
4. Evaluate whether a proposed action alligns with the organizational business/strategi c plan	◯	◯

22

* SUBDOMAIN G: INFORMATION MANAGEMENT

	Yes	No
1. Uses data sets to asses performance, stablish targets, monitor indicators and trents and determines if deliverables are met	○	○
2. Ensure that aplicable privacy and security requirements are upheld	○	○
3. Ensure optimal use of information and trend analysis within the organization through the use of business intelligece, information management, clinical and business systems	○	○
4. Promote effective management, analysis and communication of health information	○	○

23

* SUBDOMAIN H: RISK MANAGEMENT

	Yes	No
1. Effectively use risk management principles and programs, such as risk assessment and analysis and risk mitigation	○	○

* SUBDOMAIN I: QUALITY IMPROVEMENT

	Yes	No
1. Develop and implement quality assurance, satisfaction, patient safety programs according to quality and patient safety initiatives	○	○
2. develop and track indicators to meaure quality outcomes, satisfaction and patient safety, and plan continuos improvement	○	○

24

* SUBDOMAIN J: SYSTEM THINKING

	Yes	No
1. Demonstrate an understanding of interdependency, integration and competition among healthcare sectors	○	○
2. Connect the interrelationships among access, quality cost, resource allocation, accountability and community need	○	○

25

* SUBDOMAIN K: SUPPLY CHAIN MANAGEMENT

	Yes	No
1. Effectively manage the supply chain to achieve timelines and efficiency of inputs, materials, warehousing, and distribution so that supplies reach the end user in a cost-effective manner	○	○
2. Adhere to procurement regulations in terms of contract management and tendering guidelines	○	○
3. Effectively manage the interdependency and logistics of supply chain services within the organization	○	○

26

* In your opinion, did you have to acquire or improve any Business Competencies because of the accreditation process?

- ◯ Yes
- ◯ No

If yes, which competencies? You may answer freely in English or Portuguese or use subdomain letters and numbers, eg: A1, B3, etc.

27

Appendix C- Coding Nodes from MaxQDA

1-Leadership Competencies Domain

Table 40-Leadership Domain answers and codes

Answers	Codes
Improve leadership and improve communication	communication, leadership
conflict management and decision making	conflict, management
Leadership, focus results , resilience , active communication	Communication,leadership
Serving leadership. I had to do for myself first, in order to give a good example.	leadership
incorporate management techniques and theories into leadership activities. Encourage high-level commitment from employees by communicating vision and goals. Promote ongoing learning and lead change process. Encourage diversity of thought and support innovation, creativity and improvement	support, diversity, innovation, management, diversity, encourage, improvement, leadership
I had to improve the way I dealt with different processes, including teamwork.	improvement, communication
Analyze problems, promote solutions and encourage decision making. Create organizational climate built on trust, transparency, focus on improvement and that encourages teamwork and diversity. hold self and others accountable to surpass organizational goals. encourage diversity of thought to support innovation, creativity and improvement.	support, diversity, innovation, diversity, encourage, improvement
Conflict resolution	conflict
Incorporate management techniques and theories into leadership activities. Encourage high-level commitment from employees by communicating vision and goals. Promote ongoing learning and lead change process. Encourage diversity of thought and support innovation	support, diversity, innovation, management, diversity, encourage, leadership
Improvement of leadership skills, technical knowledge about the importance of improvements achieved, communication	improvement, communication, leadership
Persuasion and communication skills, Organization	communication

2-Communications and Relationship Domain

Table 41-Communications and Relationship Domain answers and codes

Answers	Codes
Demonstrate ability to develop and sustain positive and effective stakeholder relationships. Practice and value transparent decision making and understand its impacts. Demonstrate understanding of the function of media and public relations. Manage conflict through mediation, negotiation, and other techniques. build and participate in effective multidisciplinary teams	techniques, negotiation, listening
Build and participate in effective multidisciplinary team. Demonstrate understanding of the function of media and public relations.	communicating, support, listening
I am in favor of accreditation, so I answered yes to all statements	No code
Negotiation and managing through influence	negotiation, influence
internal and external communications. Strong listening and communication skills. Demonstrate collaborative techniques for engaging and working with stakeholders. Understanding of media and public relations	communicating, techniques
Work under pressure and deadlines, stimulate engagement and leadership	encourage, learning, techniques, influence

3- Professional and Social Accountability Domain

Table 42-Professional and Social Accountability Domain answers and codes

Answers	Codes
Advocate and participate in healthcare policy initiatives. Advocate rights and responsibilities of patients and their families. Promote quality, safety of care and social commitment in the delivery of health services. Develop others by mentoring, advising, coaching or serving as a role model. Support and mentor high potential talent. demonstrate reflective leadership by using self-assessment and feedback from others in decision making. Use stablished ethical structures to resolve ethical issues	quality, commitment, safety, ethical
environmental sustainability	safety
Safety culture	safety
The attitudes depend on the higher executives and I don`t think accreditation changed that panorama, higher executives/corporative leadership becoming more or less ethical or transparent. People (professionals) that work in operational positions can become more responsible	No code
Use the stablished ethical structures to resolve ethical issues	ethical
Promote quality, safety of care and social commitment in the delivery of health services	quality, commitment, safety
Leadership	Leadership

4- Health and Healthcare Environment

Table 43-Health and Healthcare Environment Domain answers and codes

Answers	Codes
Demonstrate understanding of system structure, funding mechanisms and how healthcare services are organized. Access performance of the organization as part of the health system/ healthcare services. Use monitoring systems to ensure legal, ethical and quality standards are met in clinical, corporate and administrative functions. Effectively recognize and promote patients and their families'/ caregiver´s perspectives in the delivery of healthcare decision-making process, respecting cultural differences and expectations. Include the perspective of individuals, families and the community as partners in healthcare Decision-making processes, respecting cultural differences and expectations. Establish goals and objectives for improving health outcomes that Incorporate an understanding of the social determinants of health and of the socioeconomic environment. Use statistics and health indicators to guide decision making and analyze health trends of the population to guide provision of health services. Manage risks, threats, and damage of health during disasters, emergency situations. Recognize the local implications of global health events and its impacts on population D5	health, indicators, healthcare, analyze, services
I answered yes to all above	No code
Demonstrate ability to optimize the healthcare work force around local critical issues, such as shortages, scope of practice, skill mix, licensing and fluctuations in service Subdomain D is not related to my kind of business	healthcare
Use statistics and health indicators to guide decision making and analyze health trends of the population to guide provision of health services	indicators, analyze, services

5-Business Competencies Domain

Table 44-Business Competencies Domain answers and codes

Answers	Codes
All of them	All
Financial Understanding	financial
Metrics and indicators	metrics