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Drivers and Barriers to Physiotherapists' Involvement in Healthcare Management and Leadership Roles, in Portugal

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MSc in Business Administration

Advisors:
Doctor Professor Renato Lopes da Costa, Assistant Professor, ISCTE Business School, Marketing, Operations, and General Management Department

Invited Coordinator Professor Isabel de Souza Guerra, Escola Superior de Saúde do Alcoitão, Physiotherapy Department, Master of Science and Physiotherapist, President of the Installing Committee of the Physiotherapists' Order

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BUSINESS
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Marketing, Operations, and General Management Department

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- Spine -

If I have seen further, it is by standing on the shoulders of Giants.

Isaac Newton

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Resumo

No âmbito das mudanças no sistema de saúde português ao longo dos anos, novos desafios têm surgido para os profissionais de saúde, as organizações e os seus órgãos de gestão, pelo que tem vindo a crescer o reconhecimento da necessidade de diferentes profissionais de saúde na Gestão das suas unidades. No entanto, as principais responsabilidades dos fisioterapeutas permanecem enraizadas nas práticas terapêuticas e de reabilitação, desenvolvidas principalmente em ambientes clínicos e hospitalares. Perante este cenário, o fisioterapeuta continua ausente dos cargos mais elevados de Gestão e Liderança em Saúde, apesar do seu vasto conhecimento e compreensão acerca da prestação dos melhores cuidados de saúde aos pacientes.

Como tal, esta investigação teve como objetivo aprofundar os facilitadores e as barreiras ao envolvimento dos fisioterapeutas em cargos de Gestão da Saúde e Liderança, em Portugal. Para tal, foi realizado um estudo descritivo transversal com 287 fisioterapeutas que exercem a sua atividade em Portugal, efetuando uma recolha de dados quantitativa e qualitativa.

Os resultados sugerem que a falta de formação e as políticas e leis existentes são barreiras evidentes ao acesso dos fisioterapeutas a cargos de Gestão de Saúde e de Liderança. Por sua vez, a *networking* (rede de contactos), assim como o desenvolvimento de *soft-skills*, são considerados facilitadores para o envolvimento destes profissionais nessas funções, entre outros fatores.

Palavras-chave: Gestão de Empresas, Gestão da Saúde, Liderança, Fisioterapia, Gestão.

Abstract

Within the changes in the Portuguese healthcare system across the years, new challenges emerge for healthcare practitioners, organizations, and their management boards, so the recognition of the need for different health professionals in Healthcare Management has been growing. However, physiotherapists' core responsibilities remain rooted on therapeutic practices and rehabilitation, developed primarily in clinical and hospital environments. Regarding this scenario, physiotherapists' functions continue to be absent to the highest Healthcare Management and Leadership positions, despite their knowledge and understanding about how to ensure the best services to the patients.

As such, this investigation aimed to deepen the drivers and barriers to physiotherapists' involvement in Healthcare Management and Leadership roles, in Portugal. For such, a cross-sectional survey was performed with 287 physiotherapists that performed their activity in Portugal, carrying out both quantitative and qualitative data collection.

Findings suggest that a lack of training and existent policies and laws are evident barriers to the access of both Healthcare Management and Leadership positions. In turn, networking as well as soft skills development, are considered drivers to these roles, amongst other factors.

Keywords: Business Administration, Healthcare Management, Leadership, Physiotherapy, Management.

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List of Abbreviations

A3ES – Higher Education Assessment and Accreditation Agency

AEFML – Associação de Estudantes da Faculdade de Medicina de Lisboa

AL – Authentic Leadership

APFISIO – Associação Portuguesa de Fisioterapeutas

CPA – Canadian Physiotherapy Association

CSP – Chartered Society of Physiotherapy

NHS – National Health System

WCPT – World Confederation for Physiotherapy

WHO – World Health Organization

Chapter I – Introduction

1.1. Framework

"*The great scientific, technological, social, and economic development verified in the last decades, has made it possible to solve many of the health problems of the past, but it has contributed to the fact that today we are faced with new and more complex problems, among others, the changes in healthcare needs, motivated by increased life expectancy, progressive population aging, higher incidence and prevalence of chronic diseases, which poses new challenges to health systems*" (Sousa, 2009, p. 884).

Healthcare Organizations play an important role in answer to communities' demands and have been developed a hybrid identity that results from the combination of two seemingly incompatible characteristics – business orientation *versus* community care orientation (Haigh, Walker, Bacq, & Kickul, 2015; Nunes & Martins, 2018). This places even more pressure on this kind of firms, that are usually managed by a wide range of stakeholders, where markets, professional, corporate, and state co-exist and shape their dynamics and professions (Nunes & Martins, 2018).

In this sense, some authors defend the decentralization and regionalization of the Healthcare Management systems, expecting improvements in financial impacts and patients' empowerment, as well as the development of health education and literacy. For such, AEFML (2019) proposes the promotion of health professionals as agents of change and improvement, who would start to play new roles, like Management, assuming an enhanced role in the organization and administration of their health services.

Physiotherapists belong to the third bigger health profession in Europe (APFISIO, 2020) but their role in Healthcare Management and Leadership positions remains fogged. There is also a lack of literature regarding Physiotherapy involvement in these two areas, and most of the investigations made so far were related to the Nursing profession, from which some references were inferred to this study due to the similarities between these two health professions.

Thereby, this study aimed to better understand this theme, focusing on drivers and barriers to physiotherapists' involvement in Healthcare Management and Leadership roles, in Portugal. The main motivation for this investigation is related to the desire to see the Physiotherapy profession grow and emancipate its professionals, in Portugal, recognizing their potential to make a difference not only in patients' lives, mainly through clinical practice and reasoning,

but also in organizations and communities, taking advantage of the wide range of expertise areas in which these professionals operate and the enhancement of Management and Leadership skills among them.

1.2. Research Problem

Physiotherapy is actively growing in Portugal, where there were about 500% growth in the last ten years, and it was considered as the third profession that brings more happiness, according to a study published by Forbes, in 2015 (APFISIO, 2017). In the same perspective, physiotherapists are usually described as innovative, collaborative, and patient-centered and their profession is often classified as the leading non-pharmacological health profession in the world (Dean *et al.*, 2019; APA, 2013 cit. by Huhn, Gilliland, Black, Wainwright, & Christensen, 2019).

Within the changes in the Portuguese healthcare system across the years, new challenges emerge for healthcare practitioners, organizations, and their management boards, so the recognition of the need for different health professionals in Healthcare Management has been growing. However, physiotherapists' core responsibilities remain rooted on therapeutic practices and rehabilitation, developed primarily in clinical and hospital environments (Costa, 2015). Regarding this scenario, physiotherapists' functions continue to be absent to the highest Healthcare Management and Leadership (Costa, 2015), despite their knowledge and understanding about how to ensure the best services to the patients.

The Portuguese Ministry of Health, in a document published in 2010, defends the need for the creation of an intermediate and peripheral management structure, with functional content and real autonomy, central to an effective decentralization of management modalities, in order to delegate responsibilities where service quality and processing are established (Fernandes *et al.*, 2010). The same document clarifies that this structure is called "*Hospital Board of Directors*" and it could be managed by a body consisting of a physician, a nurse, and a manager appointed by the Board of Directors (Fernandes *et al.*, 2010).

In this sense, a long way still must be traveled to better understand why other professionals, like physiotherapists, are not thought to be able to constitute the Hospital Board of Directors and participate in Healthcare Management decisions. The truth is that there is little literature regarding this profession's involvement in Healthcare Management and Leadership, which means that there are not known the factors that influence physiotherapists' engagement in these roles nor why they are not seen as professionals with the same skills to manage and lead, as physicians

and nurses. However, there are several benefits pointed out by the literature regarding boards' diversity when involving healthcare practitioners in health decision-making, like leveraging the valuable expertise of these professionals and contributing to organizational policies and success (McBride, 2017; Sundean *et al.*, 2017).

Thus, and in order to guarantee the pertinence of the research problem in face of the scarcity of literature and information in this sector, and particularly in terms of its framework within the scope of Business Administration, this investigation performed quantitative and qualitative data collection methods to enrich the little existing evidence, although mainly supported in Nursing contemporary studies.

The study also looks for this topic to be recognized and seen more and more as a collaborative path, where relationships, roles, knowledge processes, policies, and other results can be known as a co-production of the same objective, namely to allow the formulation of new questions that lead to the need for greater exploration in this area of research regarding the involvement of physiotherapists in Health Management and Leadership, in Portugal.

1.3. Objectives

Taking into consideration the investigation topic, *Drivers and Barriers to Physiotherapists' Involvement in Healthcare Management and Leadership Roles*, and given the lack of studies made so far regarding it, not only in Portugal but worldwide, this study aimed to contribute to a linked perspective of both Business Management and Physiotherapy, focusing on the current Health needs and the contribution that health professionals can make to organizational and community results.

There are some studies that find facilitators and barriers to the involvement of nurses in positions of Health Management and Leadership, but there are very few that specifically target Physiotherapy. In this sense, factors such as lack of formal training, uneven understanding and appreciation of the profession, and existing policies or laws were noticed by literature as barriers to nurses or physiotherapists engage in these positions *(*Alhassan *et al.*, 2020; Murt *et al.*, 2019; Prybil, 2016; Sundean & McGrath, 2016) and, in the same reasoning, authors figured out that networking, gender equality, time, and resources were drivers (Bismark *et al.*, 2015; Horstmann & Remdisch, 2019; Javadi *et al.*, 2016; E. McGowan *et al.*, 2019).

Using two different data collection methods, online questionnaire and individual interviews, to enrich the current literature and be the starting point of future researches and new challenges for both Business Administration and Healthcare fields, this study aimed to

contribute to the research problem through two main general objectives: 1) to identify and understand the main barriers to the involvement of physiotherapists in Healthcare Management and Leadership roles; and 2) to identify and understand the main drivers to the involvement of physiotherapists in Healthcare Management and Leadership roles.

These objectives then gave rise to four more specific research questions, always based on the literature review carried out to support the study, being: 1) What are the barriers to physiotherapists' appointment and involvement in Healthcare Management? (Q1); 2) What are the barriers to physiotherapists' engagement and acknowledgment in Leadership? (Q2); 3) What are the facilitators to physiotherapists' appointment and involvement in Healthcare Management? (Q3); and 4) What are the facilitators to physiotherapists' engagement and acknowledgment in Leadership? (Q4).

In this sense, the research objectives were breached into four specific research questions that could be answered using data collection methods from the study population. Table 1, below, shows the relationship between the Research Objectives, Research Questions, and the underlying Literature Review.

Table 1. Objectives and Research Questions

Objectives	Research Questions	Literature Review
OBJ 1 – To identify and understand the main barriers to the involvement of physiotherapists in Healthcare Management and Leadership roles.	(Q1). What are the barriers to physiotherapists' appointment and involvement in Healthcare Management?	Alhassan *et al.* (2020); Murt *et al.* (2019); Prybil (2016); Sundean & McGrath (2016)
	(Q2). What are the barriers to physiotherapists' engagement and acknowledgment in Leadership?	Bismark *et al.* (2015); Horstmann & Remdisch (2019); Emer McGowan & K. Stokes (2015); Emer McGowan & Stokes (2019); Peltzer *et al.* (2015); Thornton (2016)
OBJ 2 – To identify and understand the main drivers to the involvement of physiotherapists in Healthcare Management and Leadership roles.	(Q3). What are the facilitators to physiotherapists' appointment and involvement in Healthcare Management?	Alhassan *et al.* (2020); Murt *et al.* (2019); Shariff (2014, 2015b, 2015a)
	(Q4). What are the facilitators to physiotherapists' engagement and acknowledgment in Leadership?	Bismark *et al.* (2015); Horstmann & Remdisch (2019); Javadi *et al.* (2016); E. McGowan *et al.* (2019)

Source: Author's elaboration

1.4. Thesis' Structure

In order to achieve the proposed objectives and answer the research questions presented, the structure of this thesis dissertation is composed of eight main chapters. *Chapter I – Introduction*, corresponds to the theme introduction of the investigation, making reference to its framework and reveling its main motivations, further defining the research problem and respective objectives and research questions that drove the elaboration of this study.

In Chapters II, III, and IV there is a Literature Review regarding the investigation theme, where the concepts of Health Management, Leadership, and Physiotherapy were addressed, as well as their individual evolution over time and correlation until nowadays. In these three chapters, were also studied the main authors of these fields and their contributions to the state of the art, although sometimes nursing studies were used due to the lack of literature in Physiotherapy. Literature Review was extremely important for the success of this investigation.

Then, in Chapter V, is defined the theoretical approach with the respective research questions, which aimed to leverage the empirical part of this investigation, using the relevant Literature Review to underline this purpose. In *Chapter VI – Methodology*, it is presented the applied methodology, specifying the research model for this investigation and also the description of the samples.

In Chapter VII, the presentation and discussion of results were then made, in which the participants' answers to each research question are analyzed in detail and a comparison of results is made with the theories defended by the studied authors, which lead to the main conclusions of this investigation work. Thus, *Chapter VIII – Conclusion*, is composed of the final considerations of scientific research related to the development of a study of this nature, the contributions to both Business Administration and Physiotherapy, as well as to the author's academic experience. Also, the limitations of this study and suggestions for future researches are too stated in this last chapter.

Chapter II – Healthcare Management

2.1. Healthcare Management Definition

Healthcare systems are heterogeneous and dynamic, so it is necessary to provide leadership, direction, and coordination across all fields. Professionals who work in healthcare services constantly seek to make the difference in the lives of people they care about, which makes this work context significantly rewarding and personally satisfying (Buchbinder & Shanks, 2017). However, health systems need to be managed in all its uniqueness to ensure not only the best services but also the maximum profit, although this is often overlooked.

Healthcare, as we know it nowadays, is a relatively young conceptualization. Until the beginning of the 20th century, the health services were extremely poor and limited both in terms of money and knowledge (Healthcare Administration, 2012). At that time people were mainly treated at home and hospitals were mostly meant to patients without family nor money. Nonetheless, at the end of the 19th century, with the development and progress of medicine, like the onset of anesthesia and the discovery of antibiotics, hospitals became places able to provide treatments and relieve suffering (Haddock *et al.*, 2002). As such, health services started to grow and multiply so managing them was necessary.

"*Hospitals and clinics are not only medical institutions, they are also social and business enterprises, sometimes very large ones. It is important, therefore, that they be directed by administrators who are trained for their responsibilities and can understand and integrate the various professional, economic, and social factors involved.*" (Davis, 1932 cit. by Haddock *et al.*, 2002: 3). In 1929, Michael Marks Davis developed the first graduate degree curriculum in Hospital Administration, a two-year course that encompassed on accounting, statistics, management, economics and the social sciences, and the history of hospitals and the health professions, also with practical work with an emphasis on business policy, public health, and labor relations (Haddock *et al.*, 2002).

Davis became a reference in Hospital Administration degrees and a large number of courses have multiplied since the 1940's due to his work, seeking for quality improvement in education in this scope (Haddock *et al.*, 2002; CHAS, 2018). Across the time, the term "Hospital Administration" has evolved to "Healthcare Administration" and other similar names to embrace a wider range of organizations in which health administrators work (Haddock *et al.*, 2002; Healthcare Administration, 2012). That is how Healthcare Management was born and numerous definitions raised across time.

Buchbinder & Shanks (2017: 14) defined Healthcare Management as the "*(…) profession that provides leadership and direction to organizations that deliver personal health services, and to divisions, departments, units, or services within those organizations.*". Additionally, Fotiadis (2016) described it as the management of healthcare structures, networks, and systems, at different levels of organizations, in order to plan and support activities and processes. Fotiadis (2016) also referred that Healthcare Management must ensure "*(…) that the outcomes are attained, that different areas within a health organization are running appropriately, that jobs are correctly defined and assessed, and that resources are used efficiently.*".

In short, proper management of healthcare systems is important to establish effective care for patients, to keep good staff, and to make a profit (Healthcare Management, 2020). Faiz & Mahmoudi (2017) described Healthcare Management as being the functions' supervision of a healthcare organization with the aim to provide management, leadership, and direction to the units with the aim of guarantee the proper delivery of the healthcare services.

Given the broadness and extent of this theme, many definitions could be found, referring to different job functions and different job fields, in health administration. However, most of the authors mainly agree that Healthcare Management reflects the administration of health services as a whole, managing not only human resources and patients but also material resources and facilities. Still, profit is unnoticed in some definitions which can give the idea that healthcare services are seen as non-profit organizations.

Table 2. Summary table of Healthcare Management definitions by author.

Author	Definition
Buchbinder & Thompson (2010)	"(…) profession that provides leadership and direction to organizations that deliver personal health services, and to divisions, departments, units, or services within those organizations."
Faiz & Mahmoudi (2017)	"(…) supervising the functions of a healthcare organization. Healthcare managers' tasks include providing leadership, management, and direction to healthcare units… in order to ensure the best delivery of the available healthcare services."
Fotiadis (2016)	"(…) refers to the management of hospitals, hospital networks, and/or health care systems, at the different levels of organization and planning of clinical activities and support processes. (…) ensures that the outcomes are attained, that different areas within a health organization are running appropriately, that jobs are correctly defined and assessed, and that resources are used efficiently."

Source: Author's elaboration

It is also important to say that there are clear differences between larger and smaller healthcare organizations that challenge their everyday management. In larger systems, vertical hierarchy is more noticeable than in smaller structures and there are also more segmented executive functions to cope with the complexity of its management (Page, 2010). Therefore, there are a set of factors that must be known and accomplished in Healthcare Management to ensure an effective administration of health systems in order to keep up with community and professionals' demands.

2.2. Healthcare Managers

According to the Bureau of Labor Statistics (2020), healthcare employment is expected to grow 18% between 2018 and 2028 in the USA, which makes this one of the fastest-growing work sectors. Healthcare Managers, also called *healthcare executives* or *healthcare administrators*, plan, organize, and coordinate the delivery of high-quality healthcare services taking into account the scope, size, and system in which they operate to achieve organizational goals the best way possible (Buchbinder & Shanks, 2017; Field, 2007; Walshe & Smith, 2011).

The Healthcare Manager could be in charge of an entire facility, a specific clinical department, or a group of practitioners depending on the size and frame of the healthcare system, always keeping in mind changes in health regulations, laws, and even technologies (Buchbinder & Shanks, 2017; BLS, 2020). Also, Managers should constantly consider two important domains where they will carry tasks and make decisions, named internal and external domains, no matter the scope of their management (Thompson, 2007 cit. by Buchbinder & Shanks, 2017; Noh *et al.*, 2011).

The *internal domain*, as the name suggests, is related with internal issues within the health service and refers to areas that need to be addressed daily, where the Manager has the most control, like ensuring the fitting number and type of human resources, the optimal financial performance, and the best quality of care (Buchbinder & Shanks, 2017). By contrast, the *external domain* is related to forces, activities, and resources that exist outside the organization and affect its balance, such as community demands, population characteristics, regulations changes, and competitors' activities (Buchbinder & Shanks, 2017).

Most of the Healthcare Managers started their paths as health practitioners, like physicians or nurses, and then accomplished to pile up responsibilities until getting into management positions (Page, 2010). Nonetheless, despite their background, most executives tend to complement their practical knowledge and experience with a master's degree as part of their

intellectual and career development to be able to successfully integrate theory and practice into their functions (Walshe & Smith, 2011). According to Field (2007), the Healthcare Manager should have a master's degree in hospital administration, public health, or health administration.

Therefore, due to the nature of their job, Managers usually implement six important functions: a) *planning*, which means setting priorities and define targets; b) *organizing*, that stands for the overall design of the organization or department, including defining positions and distribute power; c) *staffing*, that is related to acquiring and maintaining human resources to develop the workforce; d) *controlling*, which refers to supervise staff activities and performance with the aim to act to improve; e) *directing*, that means providing effective leadership and motivation to staff; and f) *decision-making*, which is vital to the system and stands for increasing performance (Longest *et al.*, 2000 cit. by Buchbinder & Shanks, 2017).

Hereupon, all these functions performance contribute to the overall integrity of the organization but out of the public view. As such, Healthcare Managers are used to be known as "hidden" professionals, because of the low-profile they adopt in the system when comparing to other health practitioners, or as the ones who want to take an important role in the healthcare field without the need to have a direct patient-contact (Healthcare Management, 2020; Haddock *et al.*, 2002).

After all, there are important skills Managers should constantly develop to be successful, like communication, adaptability, and leadership due to the need to daily interact with different people in different contexts in such a dynamic and sensitive sector like Health (Field, 2007). "*(…) the best and most successful managers are reflective practitioners – profoundly aware of their own behaviors, attitudes and actions and their impact on others and on the organization, and able to analyze and review critically their own practice and set it in a wider context, framed by appropriate theories, models and concepts*" (Peck, 2004 cit. by Walshe & Smith, 2011: 1).

In the end, Healthcare Managers play an important role in establishing an organizational culture, being the ones behind a complex organization that have such goals that are impossible to achieve by a single person (Buchbinder & Shanks, 2017). As stated at the beginning of this chapter, Healthcare is a growing sector that makes Managers to constantly aim to deal with their challenges, like the growing and aging population, the increase of chronic conditions and new pathologies, medicine progress, and also political and social turbulent environments (Walshe & Smith, 2011; Healthcare Management, 2020).

2.3. Relevance for Business Administration

Healthcare services, whether they are public or private, include the same paramount characteristics of any company: offering products and services, managing both human and material/physical resources as well as facilities, strategically plan and coordinate their tasks and, in the end, they intend not only to serve communities but also to generate profit. As such, it is true to say that Healthcare Organizations develop a hybrid identity that results from the combination of two seemingly incompatible characteristics – business orientation *versus* community care orientation (Haigh, Walker, Bacq, & Kickul, 2015; Nunes & Martins, 2018).

The Portuguese National Health System seeks to provide a response to the increasing demand for healthcare services, implementing measures that allow better health outcomes for its patients and that promotes levels of effectiveness and efficiency in management and clinical governance (Ministério da Saúde, 2019). Healthcare Organizations are into a rapidly growing industry sector and suffer high levels of pressure from multiple demands, like increased both service quality and business orientation, cost containment, and the need to deal with professional groups that are often averse to management (Jarzabkowski & Fenton, 2006 cit. by Nunes & Martins, 2018). Thus, the response of the National Health System is often compromised and has to be supported by private services.

These institutions are usually owned by different stakeholders that co-exist and shape institutional complexity, which results in a core managerial challenge (Scott, W.R., 2000 cit. by Nunes & Martins, 2018; Goodrick, E. & Reay, T., 2011 cit. by Nunes & Martins, 2018). Adding this factor to the hybrid identity of Healthcare Organizations, different advantages and disadvantages emerge. On one hand, these organizations may have greater potential to answer stakeholder's expectations, but on the other, this can lead to reduced organizational performance or even to strategic paralysis (Pratt, M. & Foreman, P.O., 2000 cit. by Nunes & Martins, 2018).

This hybrid component makes hospitals and other health-related institutions to be expected to both provide high-quality services and adopt efficient management practices, so the absence of one of these expectations compromises the whole company (Nunes & Martins, 2018), which could be reflected on its profit. Increased life expectancy, aging population, and higher demand from certain conditions acquiring a chronic status and greater need for care results in bigger health expenditure and places pressure on Healthcare Organizations (International Health Cooperative Organisation, 2018). As a solution, their strategy should start to have into account, not only the money value, but also the value that these institutions give to its employees,

customers, suppliers, environment, and communities, which creates value for society (Edmans, 2020).

Economics plays a relevant role in financing Health strategy as a whole, with the public sector being the largest financier. In 2018, Portugal spent 9,1% of the GDP in healthcare, and in 2017 was the 10th country of the European Union with the largest health expenditure in the total GDP (PORDATA, 2020; Ministério da Saúde, 2019). Also, one of the trends that have been registered over time is the financial loss of the National Health System, subsidized by the Portuguese government, where there was a 5.1% increase in current expenditure in 2018, comparing to the homologous period. This corresponds to a loss of more than 848M €, a value that has more than doubled from 2017 (Ministério da Saúde, 2019). Thus, another strategy could pass by focusing on planning long-term sustainability, in order to keep its quality standards as well as economic viability.

Some theories defend the decentralization of health care from political power to local power, with the aim of being relatively independent of politicians, bureaucrats, and funding agencies (AEFML, 2019). The aim is to give health professionals the opportunity to get involved in management tasks, being at the forefront of service performance as agents of change and improvement. This would allow an increase in the institution's value to the community, letting patients and communities to be involved in their health status, and this would consequently increase Healthcare Organizations' profit (AEFLM, 2019; Edmans, 2020).

Physiotherapy is the third largest health profession in Portugal and in Europe (Coutinho & Pedro, 2018), which gives physiotherapists a broad appreciation of health needs, of how factors in the environment affect the health situation for users, their families and communities, and of how people respond to different strategies and services (Shariff, 2014). As such, the involvement of physiotherapists in tasks-related to Healthcare Management and Leadership would be of added value for health services, given the proximity of these professionals to patients of the most varied conditions and their extensive knowledge about the public and private sectors.

"*At the organizational level, there was a perception that more diverse leadership resulted in better decision- making and improved outcomes for health services*" (Bismark *et al.*, 2015), which highlights the need for new health professions on Healthcare Management and Leadership roles, specifically in Portugal.

Chapter III – Physiotherapy and Healthcare Management

3.1. Physiotherapy History and Evolution

Physiotherapy, also called *Physiotherapy*, is the third-largest healthcare profession in Europe (APFISIO, 2020) and the most representative one in the Rehabilitation field (APFISIO, 2017). It is admitted that the use of hands, with or without the addition of any adjuvant substance, with the aim of healing, is probably older than any other healing tradition, and the origin of Physiotherapy goes back to the beginnings of civilization, when man used, empirically, exposure to the sun, thermal waters, and massage, to relieve or cure his ailments (Lucena, 2011). Records point that Physiotherapy started many years ago, in 460 B.C., with Hippocrates and Galenus supporting massage, manual therapy techniques, and hydrotherapy to treat people (Wharton, 1991 cit. by Sharma, 2012).

However, the first reference of Physiotherapy as a professional group date back to Per Henrik Ling, the father of Swedish gymnastics, who founded in 1813 the Royal Central Institute of Gymnastics for massage, manipulation, and exercise for patients (Shaik & Shemjaz, 2014; Sharma, 2012). Yet, the term "Physiotherapy" itself was first written in 1851 in a German article ("*Physiotherapie*") by a German military physician, Dr. Lorenz Gleich and a few years later, in 1894, Dr. Edward Playter coined the word *Physiotherapy* in an English publication (Terlouw, 2006, Korobov, 2005 and Playter, 1984 cit. by Shaik & Shemjaz, 2014; Sharma, 2012).

However, the start of the profession was mainly boosted by the First and Second World Wars and the need to rehabilitate the injured soldiers. They required Physiotherapists' attention because of wounds, amputations, burns, cold injuries, fractures, and nerve and spinal cord injuries, so rehabilitation training programs were developed to meet the demand, in 1917 (Shaik & Shemjaz, 2014). Also, in 1916 the world polio epidemic made young women treat people with residual paralysis, implementing new techniques for diagnosing and treating, which increased the importance of this profession (Shaik & Shemjaz, 2014; Sharma, 2012).

At that time, in 1918 in Portugal, the services of the Civil Hospitals of Lisbon were reorganized and a Physiotherapy Service was referenced as part of the physical agents as means of diagnosis, treatment, and functional and aesthetic reconstitution (Diário da República, 1951 cit. by Fonseca, 2012). The Physiotherapy Service was then divided into two sections: one for electrotherapy and other related techniques, and the other one for hydrotherapy, massage, and therapeutic gymnastics (Fonseca, 2012), which acknowledges the profession at the beginning of the 20th century.

It is also relevant to say that in 1894 four women nurses founded the Chartered Society of Physiotherapy (CSPT) which led to entry-level programs about the profession (Sharma, 2012). Also, in 1921, Mary McMillan founded the actual American Physiotherapy Association (APTA), at that time named the American Women's Physical Therapeutic Association (Sharma, 2012). These organizations remain nowadays and make important contributions to Physiotherapy, both in terms of research and profession's acknowledgment.

Later, in 1954, APTA developed a 7-hour professional competency examination making state licensing boards available and private practice started to expand (Shaik & Shemjaz, 2014). Around the 1970s, the increased public access to hospitals also increased the need for Physiotherapy services, so the role and scope of practice of physiotherapists started to broaden, like cardiac rehabilitation, as well as in neural and musculoskeletal conditions. This lead to the identification of these practitioners as "physician extenders" able to evaluate and treat neuromusculoskeletal patients without a medical prescription (Shaik & Shemjaz, 2014).

At that time, APTA recognized the need to educate more physiotherapists, so the association made recommendations about admissions, curricula, education, and administration for Physiotherapy programs (Shaik & Shemjaz, 2014). This allowed raising awareness for graduate-level education, making physiotherapists recognized by their skills. They also expanded their scope of practice into other clinical areas, including animal Physiotherapy (Shaik & Shemjaz, 2014).

In Portugal, Physiotherapy has grown exponentially in the last 50 years. In the 1960s, only a few dozen practitioners exercised the profession, between 1970 and 1980 the number increased for some hundreds, and in 2000 there were already 2.000 physiotherapists in Portugal (Coutinho & Pedro, 2018). Nowadays, there are 12.891 physiotherapists in the country and an average of 700 physiotherapists finish their degrees and get into the job market every year, which is expected to grow these numbers to 20.000 practitioners around 2030 (ACSS, 2019).

Regarding schooling and training, the first-level required to be a physiotherapist, in Portugal, is a bachelor's degree of four years in polytechnic education, and to do so the students must have the high school finished and carry out access tests to university education. All bachelors are credited by the *Higher Education Assessment and Accreditation Agency* (A3ES) to ensure the quality of academic education in Portugal (Coutinho & Pedro, 2018). Currently, there are 19 bachelor's degrees, divided by seven public schools and twelve private ones, seven masters, and one Ph.D., lectured by these institutions (Coutinho & Pedro, 2018).

It is important to highlight that physiotherapists pay great attention to their continuous learning and give significant contributes to scientific research in several healthcare areas around

the world (Coutinho & Pedro, 2018). This fact allowed patients, in some countries, to refer themselves to practitioners without a medical prescription (Shaik & Shemjaz, 2014) and contributed to the recognition of Physiotherapy as the most representative profession regarding rehabilitation. There is still a long path to run for Physiotherapy to gain an active voice in the healthcare field, in Portugal, but a hard job has been being developed across the years. The profession is growing and spreading through areas never explored before and there is still a lot of history to write in the next decades.

3.2. Physiotherapy Definition

Across the years, different definitions have been known to describe this profession. From an etymological perspective, Physiotherapy results from the combination of the Greek words *physis*, which means nature, and *therapeia*, meaning treatment. So, in first glance, Physiotherapy could be defined as a natural treatment or a treatment by nature (Fonseca, 2012). Its approach is usually focused on the individual's mobility and function with the aim to rehabilitate and improve its quality of life.

Since 1995, Physiotherapy has been defined by Cott and colleagues (cit. by APFISIO, 2020) as a science and a discipline, clearly distinct from other professions, centered on movement and its relationship with functionality. This paradigm has been universally accepted worldwide which has allowed Physiotherapy to evolve and update knowledge through its scientific investigation and research, supporting itself in models of reasoning and decision making. This enabled practitioners to understand the various systems that influence the movement and its relationship with functionality and to provide effective evaluation and intervention strategies (APFISIO, 2020).

The World Confederation for Physiotherapy – WCPT (2017) defines the profession as a service provided to patients in order to develop, maintain, and restore the maximum movement and functional ability throughout the lifespan. This is applied in situations where people's function is threatened by factors like aging, injury, pain, or other disorders, always keeping in mind that movement is essential to what it means to be healthy. WCPT also refers that Physiotherapy is a process that encompasses the interaction between the physiotherapist and the patient, its caregivers, other health practitioners, and even communities, where movement potential is assessed through knowledge and skills unique to physiotherapists, taking into account physical, psychological, and social factors.

Physiotherapy integrates simultaneously effective and consolidated clinical experience with people's values and perceptions within a context. According to the Chartered Society of Physiotherapy – CSP (2018), this profession was designed to help injured, ill or disabled patients through movement or exercise, manual therapy, education, and advice. The CSP also refers that Physiotherapy steps in all ages and helps to manage pain and prevent disease to keep people's autonomy for as long as possible. At this core is the patient's engagement in the treatment, using education, awareness and empowerment, and also science-based skills crucial for its success.

Also, the National Physiotherapy Advisory Group – NPAG (2017) adds that Physiotherapy is a primary healthcare profession that provides quality-centered services to patients and contributes to keeping them productive by maximizing their function and improving their quality of life. NPAG states as well that Physiotherapy uses evidence-informed practice to prevent, assess, and treat injuries, pain, disease, and disorders' impact on patients' movement, function, and health status. Its practice could be both independently or as part of an interprofessional team, where patients are always a central concern.

In Portugal, Physiotherapy has been represented by the Portuguese Association of Physical Therapists (*Associação Portuguesa de Fisioterapeutas* – APFISIO) which is integrated into the World Confederation for Physiotherapy (WCPT) and in the World Health Professional's Alliance (Coutinho & Pedro, 2018). As such, APFISIO characterizes Physiotherapy as a specialist profession in the movement system and its relationship with functionality, quality of life, and well-being. It develops activities for the promotion, improvement, maintenance or restoration of mobility, functional autonomy, and the health of people and communities, working both with healthy populations and populations with different health conditions, including end-of-life conditions (APFISIO, 2020). It is important to refer that at the end of 2019 a new organ was voted in the Portuguese parliament to have Physiotherapy regulatory power, which will be explained further in this document.

The Portuguese Health Ministry also have its official definition for the profession, which is focused "*on the analysis and evaluation of movement and posture, based on the structure and function of the body, using specific educational and therapeutic modalities, based essentially on movement, manipulative therapies and physical and natural means, with the purpose of health promotion and prevention of disease, disability, disability and maladaptation and to treat, enable or rehabilitate individuals with physical, mental, developmental or other disorders, including pain, with the aim of helping them achieve maximum functionality and*

quality of life" (law no. 261/93 from Diário da República, 1993). In Table 3 are summarized the main definitions regarding Physiotherapy entities studied in this Literature Review.

Table 3. Summary table of Physiotherapy definitions by author.

Author	Definition
WCPT (2017)	"(…) services provided by physical therapists to individuals and populations to develop, maintain and restore maximum movement and functional ability throughout the lifespan."
CSP (2018)	"(…) help people affected by injury, illness or disability through movement and exercise, manual therapy, education and advice."
NPAG (2017)	"(…) contribute to keeping people productive throughout their lives by maximizing function and improving quality of life. (…) prevent, assess, and treat the impact that injury, pain, disease, and/or disorders have on clients' movement, function, and health status."
APFISIO (2020)	"(…) specialized in human movement and its relationship to functionality, quality of life, and well-being which develops its activities leading to the promotion, improvement, maintenance, and restoration of function."
DR (1993)	"(…) focusing on the analysis and evaluation of movement and posture (…), using specific educational and therapeutic modalities (…) with the purpose of health promotion and prevention of disease (…) with the aim of helping them achieve maximum functionality and quality of life".

Source: Author's elaboration

As the summary table shows, Physiotherapy definition is quite consensual among all of the institutions once it is agreed that human movement and function are the pillars of its activity. All definitions also consider illnesses, injuries, or disorders as causer agents for the need for physiotherapists' intervention and recognize that it can be applied throughout the lifespan. In short, Physiotherapy is the activity that deals with the functionality and well-being of the human body, based on its movement harmony and taking into consideration all factors that influence it: physical, psychological, and social ones

3.3. Physiotherapists

"*Physical therapists have long created a unique oasis, so to speak, in the healthcare industry-teaming with the patient to assist in the healing process. The ability to combine the best of science with the art of a healer is ultimately what we are about as a profession. In this new*

healthcare environment that appears focused on data and costs, physical therapists will make their biggest contribution as the caring individuals working by the patient's side in one-to-one teamwork." (Nelson, 2013 cit. by Brun-Cottan, McMillian, & Hastings, 2018: 1).

Physiotherapists, also called Physical Therapists, are the practitioners legally qualified to apply Physiotherapy. They are a professional group relatively fresh in healthcare organizations, although some of their practices have an ancestral root. These professionals have a very unique body of knowledge that has been evolving across time and give an undeniable contribution to improving the functionality and quality of life of the populations (Rebelo, 2008). Their main tool is the use of movement and therapeutic exercise, as well as physical agents and other resources, to rehabilitate and relieve pain (APFISIO, 2020).

In Portugal, physiotherapists perform their activity in the National Healthcare Service (SNS), in the public sector, according to different models and contexts of service provision, which can be across four main fields: Primary Health Care, Hospital Care, Continuous Care, and Palliative Care (APFISIO, 2020). However, around 85% of physiotherapists work in a private context that has been assuming a growing expression (APFISIO, 2017) and enables them to work on their own.

When working in the public sector, physiotherapists are regulated by the *Central Administration of the Health System* (ACSS) and belong to the Senior Diagnostic and Therapeutic Technicians group. This is a special body that is regulated for workers with a legal relationship of public employment and includes workers whose functions correspond to health professions that involve the exercise of technical diagnostic and therapeutic activities, namely related to the biomedical laboratory sciences, medical imaging and radiotherapy, clinical physiology and biosignals, therapy and rehabilitation, vision, hearing, oral health, pharmacy, orthotics, and public health (ACSS, 2020).

However, physiotherapists have been fighting to have their own Order of Physical Therapists whose aim is to be responsible for regulating all the profession, in public and private contexts. This entity was finally approved to be created last year, 2019, and is now elapsing its elaboration. It is expected that a professional Order would give the physiotherapists a standardization of all the parameters of the profession, promote self-regulation and administrative decentralization, with respect for the principles of harmonization and transparency, and defending and safeguarding the public interest and the fundamental rights of citizens.

Regarding physiotherapists' core capabilities, that during the bachelor's degree, these practitioners acquire the paramount skills in the three main areas of intervention of the

Physiotherapy cycle, which are Musculoskeletal, Neurology, and Cardiorespiratory and Integumentary. Apart from this initial training and their working context, public or private, these practitioners can autonomously continue their path and to develop their skills in several areas of expertise, throughout advanced training to acquire specialized knowledge to provide care to specific populations. These areas could be Musculoskeletal, Neurology, Cardiorespiratory, Sports, Geriatrics, Aquatic Physiotherapy, Pediatrics, Oncology, Women's Health, Dermatofunctional, Mental Health, and others (APFISIO, 2020).

After the bachelor's degree, physiotherapists are expected to have fundamental skills that specifically characterize and define their uniqueness, which can be found in *The Physiotherapist Profile*, suggested by APFISIO. Thereby, they should reveal autonomy and responsibility for the development, maintenance, profitability, or recovery of movement and its relationship with functionality throughout life, informed by the most up-to-date scientific evidence, working accordingly with their professional code of conduct (APFISIO, 2020).

As such, there are eight skills proposed for the physiotherapists' profile: 1) *clinical*, that stands for the clinical reasoning process that integrates specific knowledge, skills, and attitudes to provide high-quality care and projects' development for health promotion activities; 2) *communicator*, to use of effective strategies to exchange information and improve therapeutic and professional relationships; 3) *manager*, in the way that physiotherapists manage their time, resources, information, and priorities to ensure safe, effective, and sustainable services, promoting organizational excellence; 4) *collaborator*, once they should contribute to effective teamwork and conflict resolution; 5) *continuous professional development promoter*, implementing a reflective process of continuous learning with the aim of improving their interventions and patients' satisfaction; 6) *professionalism promoter*, meeting the legal and regulatory requirements of the profession and being aware of social and ethical responsibilities as health professionals; 7) *scholar*, demonstrating commitment to excellence in practice through continuous learning, education of others, evaluation of evidence, and contribution to the advancement of knowledge; and 8) *leader*, revealing commitment to projects and taking responsibility in defending patient's needs, as well as risks and consequences of their actions and decisions (APFISIO, 2020).

The construction of the physiotherapist profile has been an evolutionary process that allowed the identification of specific characteristics of health practitioners that work with movement dysfunction, functionality, and well-being. Some of their characteristics are transversal and shared with other professionals, however, with the emergence of the clinical dimension related to knowledge and know-how, which seeks to respond to the specific health

needs of individuals, physiotherapists acquired characteristics that distinguish them from other health professionals, occupying, therefore, a space defined by the health needs of patients and society (APFISIO, 2020).

Physiotherapists are practitioners that constantly seek to learn more and some of them give large contributes to investigation and science, through important research work, which has allowed Physiotherapy to grow and establish itself as the third-biggest healthcare profession in Europe. Still, physiotherapists remain very focused on clinical practice even though they have a huge potential do add value in other healthcare fields. Some of these practitioners have already started their path into Healthcare Management positions, but their role in this area remains a little smoggy.

3.4. Physiotherapy Relationship and Role on Healthcare Management

Physiotherapists' activity remains rooted in the emphasis on clinical practice developed primarily in hospital settings, prevailing an unawareness of the organizational and social management, and also the critical debate about the structuring systems of care. Even so, Physiotherapy training states in its guidelines the need to prepare its professionals to the admission to perform managerial duties, but it does not clearly define the nature of this activity, nor does it prescribe or recommend curricular components for this purpose (Costa & Montagna, 2015).

Physiotherapists must be able to take initiatives, manage, and administer both the workforce, resources, materials, and information, in the same way, that they must be able to be entrepreneurs or exercise leadership in the health team (Costa & Montagna, 2015). However, there is a lack of investigation about Physiotherapy and its place in Healthcare Management, even when there are clear advantages for organizations to get these practitioners into this field.

Some research has been done related to Nursing and, considering the nature and proximity between this profession and Physiotherapy, some insights can be taken regarding their involvement in Healthcare Management. Such as nurses some years ago, physiotherapists are currently absent at the highest decision-making levels of healthcare services and policymaking, despite their knowledge and understanding about how to ensure patient safety and quality be considered extremely important and relevant (Khoury, Blizzard, Moore, & Hassmiller, 2011).

Khoury *et al.* (2011), performed a survey to examine how nursing was viewed by decision-makers and opinion leaders. For such, they targeted 1.500 opinion leaders across a variety of industry, academic, and government settings, where 39% have worked in a managerial or

leadership capacity in the healthcare sector, and 70% of the respondents were men. They found that participants may not view nurses as having a great deal of influence on health reform, but they said nurses have a great deal of influence on the key elements of a quality healthcare system.

Findings of the same research identified principal barriers to nurses having more influence and exerting more Leadership: 69% of respondents said physicians are the key decision-makers, and 68% said physicians, not nurses, are revenue generators. Respondents also viewed Nursing as lacking a unified voice to focus on key issues in health policy and viewed many nurses as lacking interest in taking on this role, pointing that these practitioners should have higher expectations for what nurses can achieve. They also considered nurses are not prepared to undertake and succeed in Leadership positions due to a lack of formal management training and that excessive workload reserves little time for nurses to dedicate to Leadership roles (Khoury *et al.*, 2011).

Sundean, Polifroni, Libal, and McGrath (2017), carried out a study that supported nurses for board Leadership. Their findings suggested nurses should be appointed to boards' direction based on their valuable knowledge (about patients, health needs, healthcare organizations, and evidence-based practice), skills (including patient advocacy, team building, problem-solving, communication, Leadership, innovative thinking, and change agency), perspectives (holistic patient care), and benefits and opportunities (to influence health policy, trust and confidence from patients, and opportunity to role model governance Leadership and decision-making).

The same study revealed to be inconclusive regarding the issue of gender inequalities as a reason for low board appointment rates for nurses on boards (Sundean *et al.*, 2017), however, this topic has been raised in some other investigations, since Nursing, like Physiotherapy, is a profession mainly exercised by women. A metasynthesis accomplished by Sundean & McGrath (2016) identified gender bias as a barrier for board diversity inclusive for nurses and women. The authors found that some studies noted the practice of tokenism on boards, which reflects negatively on female board members and reduces the female influence on boards. Nonetheless, the same synthesis also pointed out a lack of aspiration and preparation for Leadership positions and lack of visibility, as perceived barriers by nonnurses board members, similarly to the study of Khoury and colleagues (2011).

Prybil (2016) analyzed eight independent studies over the past decade to better understand how Nursing engagement in governing healthcare organizations has been evolving, realizing nurses' involvement in governance continues to be modest and uneven. According to the author, key reasons that have contributed to this situation are gender disparities, uneven understanding

and appreciation of the Nursing profession, and board policies on eligibility for board appointments. "*The result is these boards do not benefit fully from the rich experience, input, and insights that highly qualified and dedicated nurse leaders can bring to governance deliberations and decision making*" (Prybil, 2016: 4).

Regarding the uneven understanding and appreciation of the profession, it was carried out in Portugal a qualitative investigation about the social representations of internists and family physicians about Physiotherapy (Lucena, 2011). The author found that physicians affirm that they do not know this profession in-depth and that the representations of each of the medical specialties about Physiotherapy do not differ substantially. Physicians also referred that the physiotherapist emerges as a professional who works under the scrutiny of the physiatrist, who watches over its autonomy and mediates the relationship between these professionals and physicians. Such representation is in line with the contributions of several authors who have observed the constancy and liveliness of medical power in health systems and organizations.

In the other hand, concerning to boards policies and its barriers for practitioners' board appointments, in a document published in 2010 and that it remains to be valid nowadays, the Portuguese Ministry of Health defends the need for the creation of an intermediate and peripheral management structure, with functional content and real autonomy, central to an effective decentralization of management modalities, to delegate responsibilities where service quality and processing are established (Fernandes *et al.*, 2010). This structure, called "*Hospital Board of Directors*" is mandatorily managed by a physician, a nurse, and a manager, all pointed by the Board of Directors, and no other health practitioner is expected to be considered to be part of these boards.

Curiously, Murt, Krouse, Baumberger-Henry and Drayton-Brooks (2019) investigated what are the facilitators of attaining a governing board appointment for the Nursing practitioners and found four main subjects: 1) *leveraging relationships and networking*, which was considered the primary contributing factor for an appointment for the board; 2) *valuing the mission of the board*, being aware and engaged of its purpose and accomplishment; 3) *feeling respected for participation*, receiving praise for the contribution to the board and expertise; and 4) *committing to board work*, investing time and energy on it. Also, barriers were identified in this context, like remaining invisible and overlooked, showing no interest, and the existence of gender bias (Murt *et al.*, 2019).

Similarly, a cross-sectional survey performed in Ghana had the aim to understand the main drivers of nurses to be involved in public policies on health (Alhassan *et al.*, 2020). The authors found availability of free time and resources, as well as increased political and civic education,

personal interest on politics, self-belief, and confidence, the main facilitators for this profession to become more politically active to advocate for Nursing and their patients. Alhassan *et al.* (2020) also referred barriers to this theme, like lack of free time and money, lack of trust in politicians, fear of conflict, and lack of educational preparation.

Other researches were performed to better identify the main facilitators for nurses to thrive into Healthcare Management roles, where authors pinpointed important drivers: being involved and present at all stages, being knowledgeable and skilled in health policy, being supported by mentors and networking, enabling structures (like legislation and gender balance), available resources, and Nursing positive image being considered a valuable partner in policy development (Shariff, 2014). Certain Leadership skills were also considered to be essential for effective participation in health policy development, like influence, effective communication, relationship building, empowerment, and professional credibility (Shariff, 2015a, 2015b).

In this sense, some questions remain to better understand why other professionals, like physiotherapists, are not considered to have the same opportunities to constitute these boards and participate in Healthcare Management. The involvement of these practitioners on governing bodies may be an asset to healthcare organizations because of their deep knowledge of clinical problems, best practices, quality indicators, and other subjects related to the safety and quality of care (Mason, Keepnews, Holmberg, and Murray, 2012). A lot of research still needs to be done regarding Physiotherapy and its role in Healthcare Management, in order to keep up to better understand the existing asymmetries and divergences, so changes in healthcare systems and communities demand could be answered accordingly.

Chapter IV – Physiotherapy and Leadership

4.1. Leadership Definition

Health practitioners are expected to be agents of change and improvement, helping to shape services, advising policies, and training colleagues, so leadership in health services and organizations is needed (Crisp *et al.*, 2014). However, when discussing clinical Leadership, it is important to distinguish between Leadership and Management once they are complementary skills but their functions are different (Dignam *et al.*, 2012; Shive & Dorn, 2012 cit. by McGowan & K. Stokes, 2015). Management aims to maintain standardization, consistency, and order being concerned with the efficient and effective running of organizations, instead, Leadership aims to create change and improvement (Kotter, 2001 cit. by McGowan & K. Stokes, 2015).

There are different definitions for Leadership and this concept has been evolving through different concepts and theoretical perspectives. Peter Northouse (2016: 6) refers that despite the multitude of ways in which Leadership is defined, four central components could be identified: 1) leadership is a process, 2) it involves influence, 3) it occurs in groups, and 4) it involves common goals. As such, the author conceptualizes Leadership as "*a process whereby an individual influences a group of individuals to achieve a common goal*".

Another definition is given by the Global Leadership and Organizational Behavior Effectiveness (GLOBE, n.d. cit. by Page, 2010), where Leadership is the ability of an individual to influence, motivate, and enable others to contribute to the effectiveness and success of the organizations of which they are members. As a matter of fact, Leadership is an influence process that reflects the characteristics and behaviors of leaders as they are perceived by their followers, which is more powerful than direct power to change actions and attitudes (Page, 2010).

In 1996, Kotter (cit. by McGowan & K. Stokes, 2015: 1) referred that Leadership "*defines what the future should looks like, aligns people with that vision, and inspires them do make it happen despite the obstacles*". Likewise, Sorensen *et al.* (2010 cit. by Summerfield, 2014), defined Leadership as a creation of positive change for the common good. By contrast, Edmonstone (2015) gives a different slightly perspective and states that it is shaped over complex interactions between people and the context in which leadership is being created, reflecting a process of debate, challenge, and persuasion that involves everyone at every level, being relational and socially constructed.

Leadership is started to be viewed as a key component in healthcare organizations success, once more and more studies have been done suggesting that improving Leadership competencies of healthcare practitioners, specifically physicians and nurses, results in superior outcomes for patients and healthcare organizations. The truth is that there is a continual need for change and improvement due to aging population, increasing chronic and mental illnesses, advances in medicine, and many other factors, which requires everyone in the healthcare field to engage in Leadership roles and contribute to successful organizations and communities (Emer McGowan & K. Stokes, 2015).

The Canadian Physiotherapy Association (CPA, 2012) defined a leader as someone who leads successful and sustainable change, holds multiple lenses and perspectives, strengthens and builds relationships, inspires and engages others to grow and learn, leads across complex systems, asks questions, and reflects on what is needed most in a system. Likewise, in an article about the leaders of the American Physiotherapy Association, the author described leaders as people willing to make decisions and take risks, understanding people's needs and inspiring them to move them to action (DiGiacomo, 2004 cit. by McGowan & K. Stokes, 2015).

Table 4. Summary table of Leadership definitions by author.

Author	Definitions
Northouse (2016)	"(…) a process whereby an individual influences a group of individuals to achieve a common goal."
GLOBE (n.d.)	Leadership is the ability of an individual to influence, motivate and enable others to contribute to the effectiveness and success of the organizations of which they are members.
Kotter (1996)	"(…) defines what the future should looks like, aligns people with that vision, and inspires them do make it happen despite the obstacles."
Sorensen *et al.* (2010)	"Leadership is successfully creating positive change for the common good."
Edmonstone (2015)	Leadership is shaped over complex interactions between people and the context in which leadership is being created, reflecting a process of debate, challenge, and persuasion.

Source: Author's elaboration

In Table 3 are summarized five definitions from the main authors considered in this chapter, which are all quite aligned. Despite the variety of definitions available, the majority of the literature agrees that Leadership is an influence process that involves complex and dynamic relationships between the leader and the followers to achieve a common goal. The Chartered Society of Physiotherapy defends that Leadership must be used by all physiotherapists at all levels and that they should contribute to Leadership tasks whenever their expertise and skills are relevant and appropriate (2011 cit. by McGowan & K. Stokes, 2015).

4.2. Authentic Leadership

Authentic Leadership (AL) is a recent concept in Leadership research that focuses on whether leadership is genuine and real (Northouse, 2016). It is considered to be an important leadership quality that is associated with promoting healthy working environments, employee engagement, improving work outcomes, and organizational performance (Shirey, 2006, and Wong & Cummings, 2009 cit. by Saxe-Braithwaite & Gautreau, 2019; Alilyyani, Wong, & Cummings, 2018).

Accordingly, to Luthans and Avolio (2003 cit. by Alilyyani, Wong, & Cummings, 2018) Authentic Leadership is a process that grounds from positive psychological capacities within developed organizational contexts and results in more self-awareness, self-regulated behaviors, and positive self-development. The same authors defined the positive psychological capacities – *confidence*, *hope*, *optimism*, and *resilience* – as being the ones that predispose leaders to develop authentic leadership skills (cit. by Northouse, 2016).

Walumbwa and associates (2008, cit. by Northouse, 2016; Malik, 2018; Alilyyani *et al.*, 2018) found four components that constitute the basis of Authentic Leadership: *self-awareness*, *internalized moral perspective*, *balanced processing*, and *relational transparency*. *Self-awareness* states the way leaders reflect on their own values and goals, dealing with their personality in their own essence; *internalized moral perspective* stands for the way leaders use their values to guide their behavior; *balanced processing* reflects the leaders' ability to evaluate information and search for other people's opinion before making a decision; and *relational transparency* is about being open and real in relationships with others, encouraging them to do the same.

Nevertheless, one more factor was identified to influence Authentic Leadership: *moral reasoning*. It is described as the ability to make ethical decisions about right or wrong and good or bad dilemmas, which promotes justice and aligns followers through a common good

(Northouse, 2016). Health practitioners in general, and Physiotherapists in particular, are confronted with ethical issues everyday which makes *moral reasoning* an important characteristic developed by these professionals that could lead them to improve their (Authentic) Leadership skills.

As reported by Wong & Cummings (2009, cit. by Alilyyani *et al.*, 2018), Authentic Leadership is grounded in humanistic values, which is one of the core characteristics of every health professions. Physiotherapists as well are expected to reveal humanistic traits, making this Leadership approach closer to for these professionals to develop Leadership skills. It is also important to highlight than Authentic Leadership when introduced and developed in healthcare organizations, has a positive impact on staff and contributes to sustainable, high-quality, patient-centered care (Saxe-Braithwaite & Gautreau, 2019).

In 2018, a Systematic Review of 21 studies was carried out by Alilyyani *et al.* to examine antecedents, mediators, and outcomes associated with Authentic Leadership in the Healthcare field. The authors found that there was a significant association ($p \leq 0.05$) between this approach and psychological capital, personal and social/organizational identification, and trust, as well as job satisfaction, structural empowerment, work engagement, job performance, knowledge sharing, and learning. The findings of this research also support that Authentic Leadership is negatively associated with negative workplace behaviors, such as bullying and incivility, and burnout, including emotional exhaustion and cynicism.

Still, in 2018, Malik performed an investigation with 530 nurses and 146 supervisors across 41 small-medium hospitals and nursing homes, in India, to explore the relationship between Authentic Leadership and contextual performance in nursing staff. Malik (2018) found a positive relationship between Authentic Leadership and nurses' contextual performance and also concluded that it develops the psychological capital of these practitioners, highlighting autonomy as an important mediator in this association. Another significant input is given by this research when the author states that an Authentic Leadership approach could be key to help build the bridge between nurses and hospital managers to understand their problems and actively find the best solutions in favor of both patients and hospital staff.

Like every approach, Authentic Leadership has strengths and weaknesses/criticisms. Northouse (2016) highlights that this leadership style gives wide guidelines for individuals to know what they should do to become authentic leaders, so everyone can develop authenticity and learn how to be more authentic. In the same way, another strength of this approach is the fact that it can be measured by the Authentic Leadership Questionnaire (ALQ), which is a validated and theory-based instrument with 16 items that allows the measurement of four

factors of Authentic Leadership (Avolio *et al.*, 2009 and Walumbwa *et al.*, 2008 cit. by Northouse, 2016).

Regarding criticisms, some questions still need to be clarified about this leadership style, such as the contexts in which it is effective and whether it results in productive outcomes (Northouse, 2016). Despite some literature has been published, future research is needed to accomplish these questions and weaknesses. Nevertheless, it is important to say that Authentic Leadership has a positive impact on organizations and its explicit moral dimension is vital to healthcare systems.

4.3. Transformational Leadership

Transformational Leadership has been considered as the most influential approach over the past two decades (Avolio *et al.*, 2009 cit. by Ribeiro, Yücel, & Gomes, 2018) and was defined by Burns in 1978 as a "*process whereby a person engages with others and creates a connection that raises the level of motivation and morality in both the leader and the follower*" (cit. by Schwartz, Spencer, Wilson, & Wood, 2011: 783, and Northouse, 2016: 162). Transformational Leadership is often associated with Charismatic and Transactional Leadership and is important to highlight that it is related to emotions, values, and goals and it involves assessing followers' motivations, influencing them to achieve more than what is usually expected (Northouse, 2016).

In 1985, Bass (cit. by Schwartz *et al.*, 2011 and Northouse, 2016) defined four key factors that incorporate Transformational Leadership style and were believed to be crucial for leaders to demonstrate: 1) *idealized influence*, which stands for the emotional component of leadership that makes followers identify with their leaders and trust them; 2) *inspirational motivation*, that involves motivating followers to promote their commitment to the organization and thus achieve more than what is generally expected from them; 3) *intellectual stimulation*, that suggests leaders should stimulate follower's creativity and challenge them, developing new approaches to deal with organization issues; and 4) *individualized consideration*, which reflects leaders supportive behavior with each of their followers, listening and coaching them taking their individual needs into account. These four factors are currently known as the "Four 'I's of Transformational Leadership".

Several studies have been done regarding Transformational Leadership and its outcomes in the Healthcare field, due to its charismatic and affective foundation. Once this approach is known to produce results beyond expectations, Transformational Leadership is commonly related to positive patient outcomes, work engagement, team working, and job satisfaction

(Jambawo, 2018; Ree & Wiig, 2020), which are all important factors that contribute to a better healthcare management performance.

Umrani & Afsar (2019) performed a survey with 367 registered nurses and 69 nurse managers based in 69 workgroups from 7 hospitals intending to examine the impact Transformational Leadership has among nursing staff. The authors measured the "Four 'I's of Transformational Leadership", innovative work behavior, and psychological empowerment, applying different instruments for those purposes. Findings revealed that Transformational Leadership was significantly correlated with innovative work behavior ($p<0.001$) and psychological empowerment ($p<0.05$). They also found that Transformational Leadership positively affected psychological empowerment ($p<0.01$) and that it was positively related to innovative work behavior ($p<0.001$). The results of this study suggest that managers in the Healthcare field should focus on Transformational Leadership development among nurses, providing psychological empowerment, so innovative work behavior could come up in the organization.

Ree & Wiig (2020) carried out a cross-sectional survey with 139 health professionals (96.4% female) from Norwegian home care services to assess the relationship between transformational leadership, job demands, job resources, patient safety culture, and work engagement in that services. The authors found that Transformational Leadership explained 35.7% of the variance in patient safety culture, while the whole predictors explained 53.3%. Also, job demands and work engagement revealed a positive impact on patient safety cultures (both $p<005$). Accordingly, Transformational Leadership was the stronger predictor ($p<0.001$) for patient safety culture when compared to job demands, job resources, and work engagement, which suggests Leadership as an important factor for quality and patient safety among healthcare services.

Alike too other leadership models, strengths and weaknesses can be found in the Transformational Leadership approach. Northouse (2016) considers the wide research made so far from many different perspectives a strong factor in this approach, as well as its *intuitive appeal* – the way this model describes how the leader promotes change and provides a vision for the future is appealing for people overall. The same author also supports Transformational Leadership as a process between the leader and its followers, where there is both exchange of rewards and leader's attention to the needs and growth of followers – suggesting a moral dimension of Transformational Leadership. Another strength of this approach is the proven effectiveness of this Leadership style in such a variety of different situations.

Regarding criticisms, Northouse (2016) refers there is a lack of conceptual clarity and delimitation, once Transformational Leadership covers many activities and characteristics, and there is no accord around its measurement – some researchers use the Multifactor Leadership Questionnaire (MLQ), but some studies have questioned its validity, while others use the Global Transformational Leadership scale (GTL). The author also fingers a weakness of this style insofar that there is a misunderstanding if Transformational Leadership treats Leadership as a personality trait or a behavior people can learn. Once its characteristics suggest leaders should have "special qualities" to influence others, this proposes a trait approach, which is difficult to teach.

A final criticism is done by the same author which highlights the Transformational Leadership potential to be abused, this is, he draws attention to de possibility of using this style to manipulate people and coercive them to evil ends. Even though, Transformational Leadership adoption by leaders demonstrates positive outcomes in the healthcare services and should be taken into account when Leadership is considered to be developed among its practitioners.

4.4. Physiotherapy Relationship and Role on Leadership

As stated before, one of the skills expected for the physiotherapist's profile is Leadership, where physiotherapists leaders aspire and defend a system that increases the well-being of society, commit to projects, lead to change, assume responsibility, risks and consequences of their actions, and promote innovation in healthcare, defending patients' needs (APFISIO, 2020). However, there is a lack of endorsement about the context and situations where these characteristics must be applied, as well as recommendations for Leadership training and curricular components.

Physiotherapists must lead and inspire change to ensure that Physiotherapy remains competitive in a dynamic and rapidly changing environment of practice (Richardson, 1999 cit. by McGowan & K. Stokes, 2015). For such, some research has been done regarding Leadership and Physiotherapy to better understand how this capacity is performed among practitioners, barriers and facilitators to its expression, perceptions, and also training approaches. Nonetheless, there is still a lack of evidence on this topic.

The Chartered Society of Physiotherapy (Thornton, 2016) carried out an investigation to understand the current thinking on Leadership within the Physiotherapy profession due to the

transformational changes desired to meet the increasing demand for quality services. That report was based on current literature and in-depth interviews with three physiotherapists that perform management roles, concluding that traditional structures and roles are barriers for physiotherapists move into Leadership positions. It also states that remains a medical dominance in clinical Leadership, where fewer female physiotherapists are taking up Leadership roles. As such, the CSP warns for the need for more physiotherapists to apply Leadership in healthcare systems and for the lack of evidence regarding Leadership in Physiotherapy practice.

In 2016, McGowan, Martin, & Stokes, carried out a survey that compared secondary data regarding Leadership-related perceptions from physiotherapists in Canada and in Ireland. The authors found that both physiotherapists from Canada and Ireland considered communication and professionalism as the most important Leadership skills a physiotherapist should demonstrate. In contrast, they realized Canada practitioners were more likely to perceive themselves as leaders when compared to Ireland ones, probably because Canada and Ireland's physiotherapists have different perceptions about Leadership definition (Emer McGowan *et al.*, 2016). This acknowledges the need to clarify Leadership skills and its definition regarding Physiotherapy scope, worldwide.

Leadership in healthcare is often very complex due to the unique characteristics of its organizations, therefore all practitioners and their leaders must collaborate to achieve the goals of safe, high-quality care, financial sustainability, community service, and ethical behavior (Schyve, 2009 cit. by Daly, Jackson, Mannix, Davidson, and Hutchinson, 2014). However, research indicates that physiotherapists reveal a lack of preparatory training when performed Leadership roles (Emer McGowan & K. Stokes, 2015) and boundless focus on clinical practice (Hassmiller & Combes, 2012), which can prevent them to have both interest and recognition to perform lead.

McGowan & K. Stokes (2015), analyzed several studies and discussion papers regarding Leadership in Physiotherapy and Healthcare to summarize the main factors concerning clinical Leadership, Leadership characteristics, main barriers and styles, and other issues about this topic. They found that barriers included staff shortages, trends towards physicians, fiscal constraints, and organizational structures that preclude health practitioners' decision making. Another possible barrier pointed out by the authors was gender bias, once Physiotherapy has a predominance of female professionals. Yet, and not least important identified factor was influence setting, that means, the context in which setting occurs could influence Leadership involvement from physiotherapists.

In Nursing, a descriptive cross-sectional survey performed with 971 nurses in Kansas, had the aim to examine nursing Leadership roles, goals, and barriers (Peltzer *et al.*, 2015). Participants identified as main barriers to becoming a leader insufficient time during work, insufficient time available outside of work, perceived need for further Leadership development before serving as a leader as well as needing additional education and/or training, and limited organizational Leadership opportunities. Despite these perceptions, some nurses also reported they were not interested in a Leadership position, or that they had already achieved Leadership goals (Peltzer *et al.*, 2015). As such, these barriers deserve to be addressed in Physiotherapy Leadership framework, in further researches.

More recently, McGowan & Stokes (2019) explored female healthcare students' perceptions and experiences of Leadership in healthcare throughout a focus group. Participants perceived to be important for leaders to demonstrate communication skills, confidence, people skills, understanding, and empathy. Also, gender differences were pinpointed once the students considered to be a difference in the experiences of male and female healthcare professionals, including parental responsibilities, maternity and paternity leave, and gender stereotypes, which work as barriers. The authors also found a reluctance to demonstrate Leadership and lack of interest to take on this role.

Regarding facilitators, that are as well important when talking about Leadership, participants of the same study mentioned that blinded applications, gender quotas, and family experiences could facilitate female healthcare practitioners to engage in Leadership roles. They also stated development and modeling, once they considered having very little support regarding this topic through their university courses. However, some of the participants recognized that leadership skills could be acquired from experience and learning in the role (Emer McGowan & Stokes, 2019).

Also, Horstmann & Remdisch (2019) performed a survey regarding drivers and barriers that are influencing factors in the successful practice of health-specific Leadership in healthcare facilities, in Germany. Findings revealed creativity, innovative, and proactive capacities, as well as exchange with external networks, willingness to take risks, and critical self-reflection, individual leader's enablers to succeed. At an organizational level, the existence of a supportive head of management was precepted as a facilitator, once it often hints more financial, personal, and time resources, flexibility, and a bigger scope of action for the remaining managers. The lack of these resources, task requirements, and legal frameworks were mentioned as barriers to Leadership (Horstmann & Remdisch, 2019).

A lot of research has been performed regarding the role of gender and, consequently, women's access to Leadership positions and some of them can be found about the healthcare scope. "*Women make up over 75% of the health workforce in most countries, especially as a proportion of the allied health workforce and lower status health occupations*" (WHO, 2016 cit. by Javadi *et al.*, 2016: 230). In this matter, as Physiotherapy is compound by a majority of women practitioners, it is relevant to look for research that identifies challenges, highlight enablers, and explore strategies for women to become effective health leaders.

Key factors for their success in healthcare Leadership, pinpointed by literature include, developing Leadership skills, lead by listening and leveraging skills in others, having tenacity and knowledge to challenge the norms, and filling a gap they had observed in the system (Javadi *et al.*, 2016). Following this reasoning, women learned to create supportive environments with a vision for change to enhance understanding and motivate teams to move forward (Javadi *et al.*, 2016). For that, it is important that they have personal support (from female role models, mentors, and network outside job) to develop confidence and credibility, better educational opportunities, fairer appointment processes, and parenting-friendly working arrangements (Bismark *et al.*, 2015; Javadi *et al.*, 2016).

Opposite to these key success factors, also barriers to female healthcare professionals' access to Leadership roles are pointed out in researches. Issues regarding perceived capabilities, perceived capacities, and perceived credibility were studied by Bismark and colleagues (2015), where authors reported self-doubt, lack of self-confidence, underestimation of personal capabilities, parenthood demands, lack of time, and stereotyped prejudices ("*not being taken really seriously*"; "*their traits were readily dismissed as too feminine and thus not stereotypically consistent with being a leader*") as obstacles. Although there are conscious and unconscious bias leading to this, women often face different expectations than men in the workplace, particularly in Management and Leadership roles (Chisholm-Burns *et al.*, 2017).

When thinking about opportunities and misadventures from Physiotherapy to take on Leadership positions, all these factors must be addressed so effective strategies can be adopted. Leadership importance among healthcare organizations is increasingly being recognized, and improving Leadership in Physiotherapy powers the development and progress of both the profile and status of the profession and the services provided to patients and communities (Emer McGowan & K. Stokes, 2015), acknowledging the need for more research in this scope.

Chapter V – Theoretical Approach

The relationship between Physiotherapy, Healthcare Management, and Leadership remains dubious and insufficient in the current literature. Throughout this dissertation, several perspectives were analyzed and presented by different authors, therefore, often resorting to studies carried out in the Nursing profession. In this sense, and as a result of a deep reflection, four research questions arise, which will be addressed in detail in this chapter, and which aim to guide this investigation.

Management and Leadership usually hold hands, once they are complementary competencies, but their functions are different (Dignam *et al.*, 2012; Shive & Dorn, 2012 cit. by McGowan & K. Stokes, 2015). If, on the one hand, Management is responsible for standardization, consistency, and order, concerned with the efficacy of organizations, on the other hand, Leadership intends to create change and improvement on them (Emer McGowan & K. Stokes, 2015). In healthcare, these have proved to be essential skills for superior outcomes for communities and organizations, finding the best solutions for both patients and hospital staff, and maintaining, or even increasing, the quality of services provided (Buchbinder & Shanks, 2017; Jambawo, 2018; Ree & Wiig, 2020; Saxe-Braithwaite & Gautreau, 2019).

Physiotherapy plays an important role in patients' treatment across different pathologies and health promotion, and it is largely assumed that the use of touch to treat the human body is one of the oldest therapies practiced for pain relief and healing (Lucena, 2011). The WCPT (2017) defines Physiotherapy as a process between the physiotherapist and the patient, where a service is provided to develop, maintain, and restore the maximum movement and functional ability throughout the lifespan, being recommendable for the physiotherapist to develop Management and Leadership skills. However, these recommendations are not totally clear and Physiotherapy in Portugal remains very focused on direct job with patients (Hassmiller & Combes, 2012).

There are several benefits pointed out by the literature regarding boards' diversity when involving healthcare practitioners in health decision-making, such as to leverage the valuable expertise of these professionals and contributing to organizational policies and success (McBride, 2017; Sundean *et al.*, 2017). Even so, excluding physicians, their appointment to hospital boards, as well as to Management and Leadership roles, remains thin and authors listed both facilitators and barriers to this matter. Therefore, the four research questions emerge, especially directed to the Physiotherapy profession:

Q1 – What are the barriers to physiotherapists' appointment and involvement in Healthcare Management?

Barriers to the involvement of nurses in Healthcare Management were analyzed by the literature and, given the lack of research on this topic about Physiotherapy, as well as the proximity and similarity between both professions, those will be taken as a reference in this investigation. As such, issues related to gender disparities, medical dominance, lack of formal training, lack of interest on taking Management roles, uneven understanding and appreciation of the profession, and even policies were noticed by authors as barriers to Nursing appointment to boardrooms and Management positions (Alhassan *et al.*, 2020; Murt *et al.*, 2019; Prybil, 2016; Sundean & McGrath, 2016). In this sense, the second research question arises:

Q2 – What are the barriers to physiotherapists' engagement and acknowledgment in Leadership?

As well as Management, also Leadership in the health sector has been a purpose in the literature, given its importance for the success of organizations. Once these competencies are distinctive, different outcomes could be identified when comparing results from both. Similar to the research cited above regarding the barriers to the involvement of health practitioners in Management, also on Leadership there are scarce investigations regarding physiotherapists and, therefore, studies carried out with nurses will likewise be considered as a reference point.

Reasons such as gender inequalities, physicians' dominance, excessive workload, lack of interest in Leadership, lack of preparatory training, traditional structures, and prejudiced stereotypes were pinpointed by researchers as potential barriers why the Physiotherapy (and Nursing) profession remains away from Leadership roles (Bismark *et al.*, 2015; Horstmann & Remdisch, 2019; Emer McGowan & K. Stokes, 2015; Emer McGowan & Stokes, 2019; Peltzer *et al.*, 2015; Thornton, 2016). Following this reasoning, the investigation asks the third question:

Q3 – What are the facilitators to physiotherapists' appointment and involvement in Healthcare Management?

Not only barriers are important to understand in this matter, but also facilitators are key-points to encourage physiotherapists to take into Healthcare Management. The literature mainly studied the Nursing profession and states that leveraging relationships and networking, commitment to work, availability of free-time and resources, being skilled in health policy, and gender balance are some of the most important drivers that health practitioners should have to

perform and being appointed to hospital boards and Management roles (Alhassan *et al.*, 2020; Murt *et al.*, 2019; Shariff, 2014, 2015b, 2015a). In that way, comes up the fourth research question to guide this investigation:

Q4 – What are the facilitators to physiotherapists' engagement and acknowledgment in Leadership?

Last, but not least, and in order to complement the whole context in which this investigation will be carried out, it is imperative to understand the agents that facilitate the introduction of physiotherapists in the scope of Leadership, taking again into account its distinction with Management skills. Being Leadership a key-competence for Physiotherapy profession's success, although it is little perceived and developed, the authors identified as facilitators elements like innovative and proactive capacities, critical self-reflection, development of Leadership skills, networking, gender equality, time, and resources (Bismark *et al.*, 2015; Horstmann & Remdisch, 2019; Javadi *et al.*, 2016; E. McGowan *et al.*, 2019).

Therefore, these four questions aim to leverage healthcare research in Portugal, with a specific target to Management and Leadership, by physiotherapists. May those also be the starting point for an increased awareness of the importance of this topic in its professionals and governors, given the direct impact it may have on patients, communities, and organizations.

Chapter VI – Methodology

6.1. Investigation Model

Research usually stands for a search for knowledge, being a movement from the know to the unknown, which purpose is to discover answers to questions through the application of scientific methods (Kothari, 2004). In this sense, the appropriate study design choice is a crucial prerequisite for any research's success, that encompasses all the plans and procedures required, since simple assumptions to detailed methods for data collection, analysis, and interpretation (Creswell, 2014; Thiese, 2014). The study design selection should also consider the research problem, the researcher's personal experiences, and the population for study (Creswell, 2014).

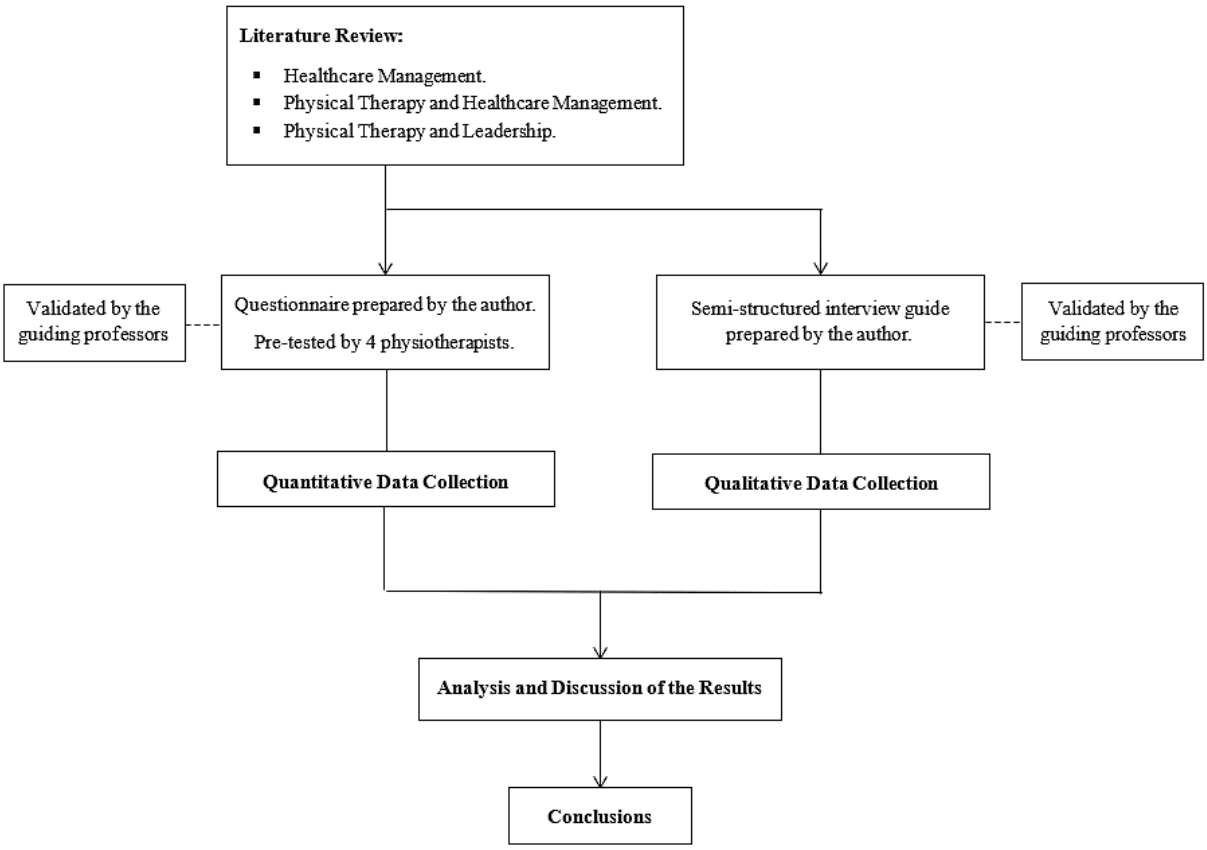
Considering the research classification criterion proposed by Vergara (2006) and Vilelas (2009), there are two ways in which we can classify the methodology used in research documents' design – regarding the *purpose* and regarding the *means*. The *purpose*, in this case, refers to applied and exploratory research, while the *means* are linked to the study field and bibliographic research. Concerning the present investigation, it was based on a pragmatic or inductive character, once it is not intended to reach true conclusions from equally true premises (deductive method), but only by means of induction to measure a set of social phenomena under study, in order to find a set of probabilities that allow to establish comparisons and discover relationships between them (Carmo & Ferreira, 1998).

Thus, the aim of this study is to know and deepen what are the drivers and barriers to the involvement of physiotherapists in Healthcare Management and Leadership roles, in Portugal. For this, a descriptive study which data was collected at a single point in time – cross-sectional survey – was performed using a convergent mixed-method approach, combining both quantitative and qualitative methods, through primary information sources, collected roughly at the same time to answer research questions (Creswell, 2014; Kothari, 2004; Shorten & Smith, 2017). This methodology enables to seek a more comprehensive and complete viewpoint of the research landscape, viewing research from different perspectives and through diverse lenses (Shorten & Smith, 2017).

Four main steps were carried out to perform this study, being them: first, the bibliographic research and information treatment, which resulted in the current Literature Review; second, was the transfer of the theoretical construct to the instruments developed by the author, pursued by a pre-test, ensuring the best accuracy so data could be reliably interpreted; third, data collection performed with physiotherapists both in a quantitative and qualitative way; and, in

the end, data analysis presentation and discussion of the results were done, confronting the data presented in the statistical outputs resulting from quantitative data collection and the information reproduced in audio from the qualitative data collection, which finished with the conclusions of this investigation. Figure 1 illustrates the research model used in this study.

Figure 1. Methodological Model Design



Source: Author's elaboration

Regarding Quantitative Data Collection, the purpose was to produce a database from which characteristics and relationships were inferred to the population being studied (Kothari, 2004), thereby resorting to statistical and inferential analysis. For such, a structured online questionnaire composed of closed questions was developed by the author taking into account the Literature Review and Objectives that state the investigation. This approach is often used in the Management field and has advantages in terms of cost reduction, easier data processing, and error reduction (Vilela, 2009). After closing the survey, data were imported via Excel into the IBM® SPSS® Statistics Software (version 27), proceeding to the analysis and consequent elaboration of quantitative results through the necessary outputs, using descriptive statistics for

inferring conclusions. In the table below are presented the methodologies used to answer each research question.

Table 5. Methodology used for research questions

Objectives	Research Questions	Methodology	Literature Review
OBJ 1 – To identify and understand the main barriers to the involvement of physiotherapists in Healthcare Management and Leadership roles.	(Q1). What are the barriers to physiotherapists' appointment and involvement in Healthcare Management?	Descriptive Statistics and Content Analysis	Alhassan *et al.* (2020); Murt *et al.* (2019); Prybil (2016); Sundean & McGrath (2016)
	(Q2). What are the barriers to physiotherapists' engagement and acknowledgment in Leadership?	Descriptive Statistics and Content Analysis	Bismark *et al.* (2015); Horstmann & Remdisch (2019); Emer McGowan & K. Stokes (2015); Emer McGowan & Stokes (2019); Peltzer *et al.* (2015); Thornton (2016)
OBJ 2 – To identify and understand the main drivers to the involvement of physiotherapists in Healthcare Management and Leadership roles.	(Q3). What are the facilitators to physiotherapists' appointment and involvement in Healthcare Management?	Descriptive Statistics and Content Analysis	Alhassan *et al.* (2020); Murt *et al.* (2019); Shariff (2014, 2015b, 2015a)
	(Q4). What are the facilitators to physiotherapists' engagement and acknowledgment in Leadership?	Descriptive Statistics and Content Analysis	Bismark *et al.* (2015); Horstmann & Remdisch (2019); Javadi *et al.* (2016); E. McGowan *et al.* (2019)

Source: Author's elaboration

The questionnaire was developed in Portuguese language and created on LimeSurvey platform, comprising an introduction for the study objectives and scope, as well as the guarantee of anonymity and its confidentiality Also, an email was provided for further questions or doubts. On balance, the instrument had 22 multiple-choice items on a Likert scale, scored from 1 to 5 (1 – Totally disagree; 2 – Disagree; 3 – Neither agree, nor disagree; 4 – Agree; 5 – Totally agree), and one final item to rank competencies in order of importance. In the end, an anonymous sociodemographic data form was requested to fill so that sample could be characterized, and relationships could be established between the results.

Thereby, the questionnaire was first pre-tested by a group of four physiotherapists from different fields (Training, Private Practice, Public Practice, and Sports) to ensure construct validity. All pre-testers considered the questionnaire to be simple and clear, with the ideal length, easy to understand and fill, and no excessive questions were identified. There was agreement about the content of most items between the physiotherapists, with questions 18 and 22 the least agreed – 50% fully agreed and 50% agreed but considering alterations to be done. As such, item 18 was modified, but item 22 was fully kept. There were also other items with no fully agreement, but due to the Literature Review developed, the author opted to keep them. In the end, a final version was used to collect data, and pre-testers were asked to do not fill it, avoiding bias.

All the nineteen Portuguese Physiotherapy colleges were contacted both by call and email with the aim of disseminating the questionnaire to its former students, however, not all institutions were available to share it. Also, the Portuguese Association of Physiotherapists (APFISIO) was contacted by the same means with the aim to send it to their members, from which positive feedback was received, and a convenience sample was used to ask for physiotherapists' participation. All these steps resulted in 290 answers returned, from which three were disregarded due to improper filling and inclusion criteria disrespected. Quantitative data collection took place between July and August 2020.

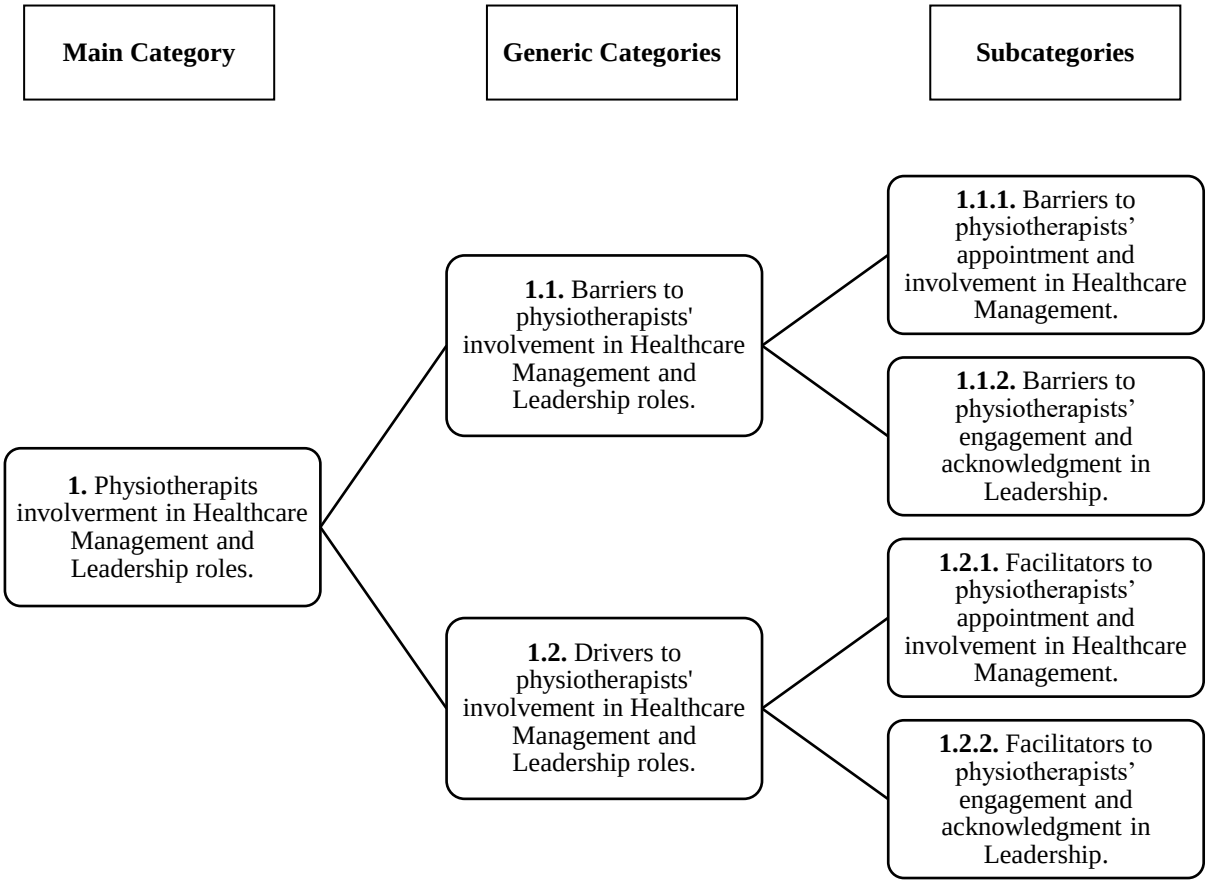
Regarding Qualitative Data Collection, a semi-structured interview guide was prepared, composed of four main thematic areas, which, for guidance, were assumed the same as the objectives. The interview guide was based on the Literature Review that states the investigation, as was done in the quantitative part of this study, and according to the purpose and specific objectives pre-defined. Personal interviews were carried out, once this method was considered to be the most adequate to collect the elements of analysis from the participants, so supplementary information could be collected and the interviewer could organize, control, and deepen the various thematic areas, which is often of great value in interpreting results (Flick, 2009; Kothari, 2004).

The accomplishment of the qualitative data collection had as main objective to complement the results obtained in the quantitative part of the investigation, in order to deepen the phenomena under study, being this a pioneering exploratory work in the proposed areas. Despite the interview guidance and structure, this process was spontaneous, flexible, and informal, allowing the participants to deepen and clarify the aspects they considered to be of greater relevance, allowing different perspectives to emerge.

In terms of the qualitative analysis technique used to interpret the data reproduced in the interviews, it was used content analysis, trying to relate the semantic structures (signifiers) with the sociological structures (meanings) of the statements, in order to articulate the surface of the texts with the factors that determine their characteristics (Duriau *et al.*, 2007).

From the voice reproductions, the process of explanation, systematization and expression of the content of the messages, promoted by the content analysis, was organized in accordance with the three chronological poles of Bardin (1977), that is, in a first stance, giving way to organization and systematization of ideas, in a second one, all the material was explored, and in the end, the treatment and the respective interpretations of the results obtained were carried out. Figure 2 shows the categorization and codification of the interview corpus that originated the qualitative analysis.

Figure 2. Categorization and codification of the interview *corpus* for qualitative analysis



Source: Author's elaboration

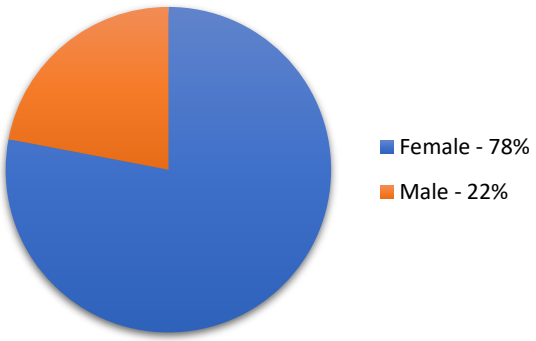
This qualitative approach was conducted from a non-probabilistic sample for convenience, intentionally selected, where the participants were from both private and public contexts of clinical practice and across different geographic locations covering in an enriching way the subjects under investigation. As such, sampling was chosen in a purposive manner to obtain the broadest way of information, however, it is not representative of the population, once it occurs when participation is voluntary or the elements of the sample are chosen for the sake of convenience (Yin, 2011). Qualitative data collection was carried during July 2020 and nine participants contributed to the study.

6.2. Sample Characterization

6.2.1. Quantitative Sample Characterization

For sample characterization, descriptive statistics were performed using IBM® SPSS® Statistics Software (version 27), analyzing means, median and standard deviations from data collected. Therefore, quantitative sample is composed of 287 health professionals, from which 224 are women (78%) and 63 are men (22%), confirming the female tendency among the physiotherapists' community, in Portugal.

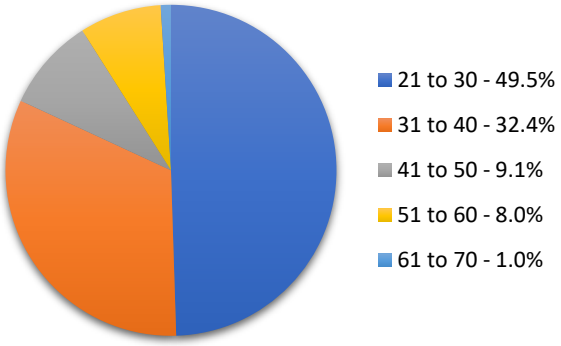
Graph 1. Quantitative sample gender.



Source: Author's elaboration

The average age of the participants is 33 years old (s.d. 10 y.o.), ranging between 21 and 64 minimum and maximum, respectively. The most relevant range, in absolute terms, is set between 21 and 30, representing 49.5% of the sample, having the following distribution:

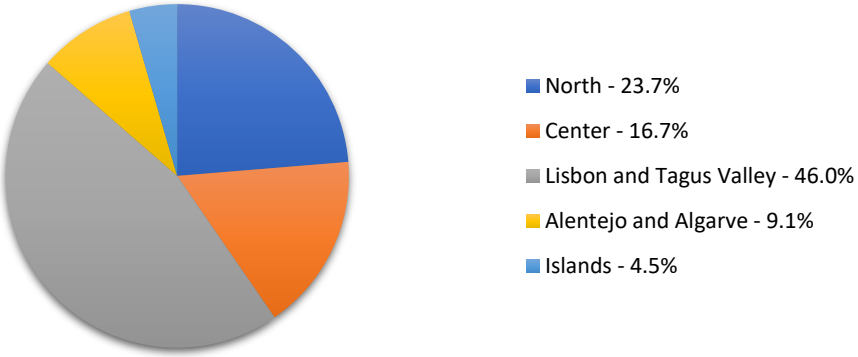
Graph 2. Quantitative sample age.



Source: Author's elaboration

Regarding geographical distribution, physiotherapists that compound this sample were from almost all Portuguese districts, as well as Madeira and Azores islands. However, Lisbon and Tagus Valley had a major expression (46.0%), followed by North (23.7%), Center (16.7%), Alentejo and Algarve (9.1%), and Islands (4.5%).

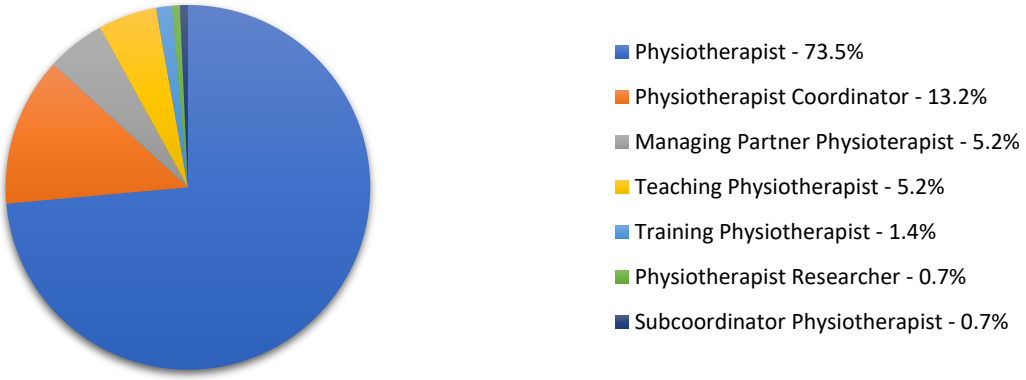
Graph 3. Quantitative sample geographical location.



Source: Author's elaboration

With respect to sample professional role, the great majority of the participants were "Physiotherapist", meaning 211 health professionals, but other roles were identified as below. This sample has an average of 10 years of professional experience (s.d. 10 y.o.), ranging between 0 and 42 minimum and maximum, respectively.

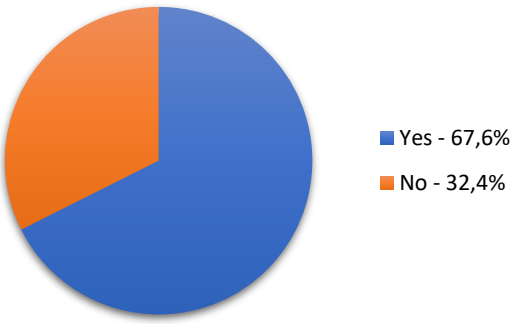
Graph 4. Quantitative sample professional role.



Source: Author's elaboration

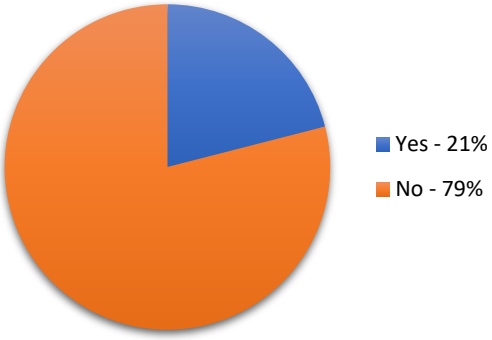
Although the professional context was questioned to the participants, this data will not be presented or analyzed in the quantitative approach due to the high number of professional challenges in which Portuguese physiotherapists are involved, i.e., professionals of this sample are working in various locations and contexts, thus making it difficult to group them into categories. As such, and in order to avoid bias, the information collected will not be taken into account for this stage. Even so, it is possible to say that 196 physiotherapists from the sample had a Management related subject on their bachelor's degree, but only 61 have complementary training regarding Management and/or Leadership. The graphs below illustrate the findings.

Graph 5. Quantitative sample management related subject during bachelors.



Source: Author's elaboration

Graph 6. Quantitative sample complementary training regarding Management/Leadership.



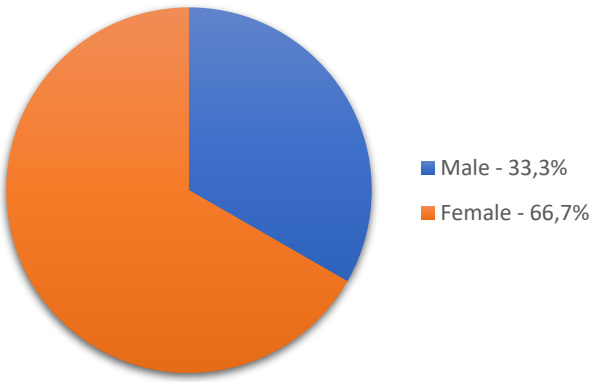
Source: Author's elaboration

To finish quantitative sample characterization, 169 physiotherapists had a Bachelor's degree (58,9%), followed by 52 with a Masters (18,1%), 30 with a Post-Graduation (10.5%), and 4 with a PhD (1.4%).

6.2.1. Qualitative Sample Characterization

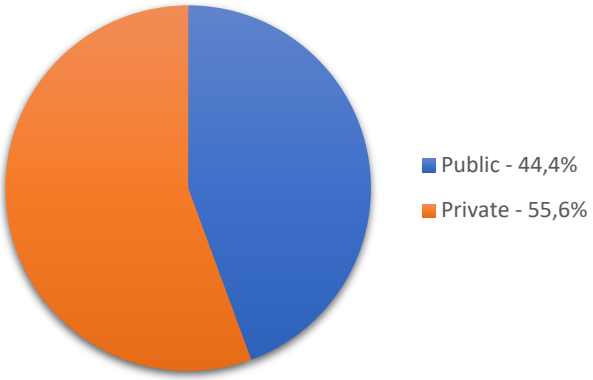
Regarding qualitative data collection, 9 physiotherapists were interviewed, from which 5 had a Bachelor's degree (55,6%), and 4 had a Masters (44,4%), one of which was completing a Ph.D. This sample was constituted by 66,7% of female participants, which ages were ranged between 24 and 61 years old. Participants worked in teams compounded by, in average, 11 physiotherapists (between 2 and 25 elements), and 55,6% had complementary education regarding Healthcare Management, besides Physiotherapy degree. Qualitative sample characterization follows below.

Graph 7. Qualitative sample gender.



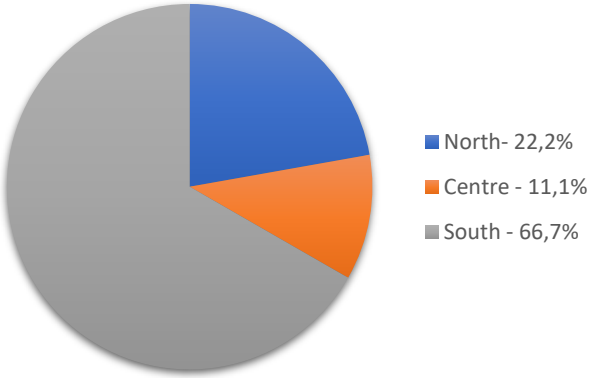
Source: Author's elaboration

Graph 8. Qualitative sample professional context.



Source: Author's elaboration

Graph 9. Qualitative sample geographical distribution.



Source: Author's elaboration

Chapter VII – Results' Presentation and Discussion

7.1. Barriers to physiotherapists' appointment and involvement in Healthcare Management

This first question aimed to understand the main factors that difficult physiotherapists' access to Management roles. On the questionnaire, several scenarios were presented, and participants were asked to range their answers on a Likert scale, from 1 to 5, so the most frequent answer was regarded to infer conclusions. Majority of the participants considered that: 1) *physiotherapists didn't have the necessary knowledge of Healthcare Management* when they finish the degree; 2) the *current Portuguese NHS structure doesn't allow* them to get into Management roles; 3) there is a *lack of recognition of the Physiotherapy* profession; 4) there is an *excessive workload* that doesn't let them focus on Management; and 5) there is a *prevalence of other health professions* on these roles. These scenarios were considered as barriers to their appointment and involvement in Healthcare Management. Table 5 shows sample's answers and respective percentages.

Table 6. Barriers to Healthcare Management quantitative results.

Question	Likert Scale 1-5				
	1	**2**	**3**	**4**	**5**
1	20.6%	38.7%	17.8%	19.9%	3.1%
3	39.7%	39.7%	16.4%	3.1%	1.0%
4	0.3%	4.5%	4.5%	38.0%	52.6%
5	18.8%	28.2%	30.3%	18.1%	4.5%
7	7.0%	9.4%	17.1%	36.2%	30.3%
8	21.6%	41.1%	22.3%	11.8%	3.1%
9	1.0%	1.7%	4.2%	34.5%	58.5%

Source: Author's elaboration

One last question, number 22, appeared on the instrument asking for participants to rank the eight competencies of the physiotherapists profile in order of importance. It aimed to understand in which degree sample would classify Management skills on their daily practice. Descriptive statistics revealed that Management appears in second to last place, in order of

importance, followed only by Leadership, the last of the rank. This suggests that Portuguese physiotherapists remain really focused on clinical practice and seem to forget Management and Leadership as relevant skills and means to develop their profession.

During the interviews, this exact same question [What are the barriers to physiotherapists involvement in Healthcare Management?] was done to the participants, and results are aggregated on table 6. As it can be seen, most qualitative results are aligned with the questionnaire answers: the participants considered lack of Management skills, existent laws and policies, lack of interest, other health-related professions domain, and lack of time as the main barriers to physiotherapists engagement on Healthcare Management. However, other themes emerged from the interviews.

Five out of nine participants mentioned that salary compensation was absent, or insignificant when physiotherapists assumed Healthcare Management roles, which can lead to a lack of interest. Although, this assumption does not match the questionnaire findings where most of the physiotherapists answered to be interested on this role. Still, on this reasoning, three participants referred that there is a lack of stimulation during the degree for Management importance and where there is no boost, there is no space for interest. Also, regarding other health-related professions' dominance in this field, physicians and nurses were the only ones mentioned.

Table 7. Barriers to Healthcare Management qualitative results.

Text	Generic Category	Sub category	Frequency	Interviewee
Lack of Management training and skills during the degree.	1.1.	1.1.1.	8	1, 2, 3, 4, 5, 6, 7, 8
There are policies and laws that bar physiotherapists involvement in Management.	1.1.	1.1.1.	8	1, 2, 3, 4, 5, 6, 7, 8
Lack of interest and initiative from physiotherapists.	1.1.	1.1.1.	6	3, 5, 6, 7, 8, 9
The salary for physiotherapists in Management roles is the same.	1.1.	1.1.1.	5	1, 3, 5, 7, 9
There are other health professionals' domain on Management roles – physicians and nurses.	1.1.	1.1.1.	5	2, 3, 5, 8, 9
Physiotherapy uneven understanding and recognizing, sometimes due to a lack of health literacy.	1.1.	1.1.1.	4	5, 7, 8, 9
There is lack of time to manage, due to excessive workload, which compromises Management quality.	1.1.	1.1.1.	4	1, 4, 7, 9
Traditional focus on clinical practice takes a little bit away the purpose that the physiotherapist could coordinate.	1.1.	1.1.1.	3	6, 7, 8
Our profession is very commodious.	1.1.	1.1.1.	2	6, 7
Lack of human resources leads to a lack of time to manage.	1.1.	1.1.1.	2	1, 9
Lack of organization and guidance of the profession.	1.1.	1.1.1.	2	1, 8
Healthcare management subjects during graduation aren't taught at the right timing for students to understand their importance.	1.1.	1.1.1.	1	6

Thus, it is possible to conclude, through the questionnaire and the interviews, that there is unanimity regarding *lack of Management training and skills* in taking on these roles, like Khoury *et al.* (2011), Sundean & McGrath (2016), and Alhassan *et al.* (2020) stated in their findings. Literature also meets the results of this investigation regarding *existent laws and policies* as barriers to physiotherapists involvement on Management (Prybil, 2016), *physicians domain on Healthcare Management* (Khoury *et al.*, 2011; Lucena, 2011), *uneven*

understanding of the profession (Prybil, 2016), and *little time for physiotherapists to dedicate to Management* (Khoury *et al.*, 2011).

However, in what concerns to *gender disparities*, suggested by Murt *et al.* (2019), Prybil (2016), Sundean *et al.* (2017), and Sundean & McGrath (2016), both samples of this study don't consider gender to be a barrier to physiotherapists appointment to Healthcare Management positions. The quantitative sample classified the topic with 3/5 ("neither agrees, neither disagrees"), and interviewees reinforced that gender is not a limitation: "*Of what I have seen, not really. No, I don't realize. (…) My clinic is headed by women, physiotherapists, three, so … I don't see much [barriers].*" (Interviewee 5).

In this same reasoning, from this study, it is not possible to take clear conclusions regarding physiotherapists' interest in assuming Healthcare Management positions. On one hand, most of the quantitative sample revealed to have an interest in Management roles, but on the other, qualitative results suggest that there is no interest from physiotherapists. As such, interviews' findings are aligned with Khoury *et al.* (2011) and Sundean & McGrath (2016) investigations' results, however, the same is not true for the questionnaire answers.

Therefore, as stated above, new assumptions were raised during the interviews as barriers to physiotherapists involvement in Management roles, such as the *absence of salary compensation*, the *traditional focus on clinical practice* that takes away the purpose that physiotherapists can manage, *lack of organization and guidance* of the profession, *little time to engage* on these roles, and *inadequate timing to teach Healthcare Management* subjects during the degree. In this sense, interviewees' statements helped to interpret quantitative data collection and new findings emerged to build assumptions regarding physiotherapists' involvement in Healthcare Management.

7.2. Barriers to physiotherapists' engagement and acknowledgment in Leadership

Like the previous question, this topic aimed to understand the main barriers to physiotherapists' engagement and acknowledgment in Leadership positions. For such, participants completed a dedicated group of the questionnaire directed to Leadership and were asked to give their opinion during the interviews, considering their own experiences. The tables 7 and 8, below, show both quantitative and qualitative results for this question.

Table 8. Barriers to Leadership quantitative results.

Question	Likert Scale 1-5				
	1	**2**	**3**	**4**	**5**
13	7.3%	23.7%	25.1%	32.1%	11.8%
14	0.7%	4.2%	7.7%	49.1%	38.3%
16	19.5%	31.4%	26.1%	16.7%	6.3%
17	4.2%	15.0%	18.8%	41.8%	20.2%
18	0.0%	0.3%	3.8%	42.9%	53.0%
19	1.4%	7.3%	15.7%	46.7%	28.9%
21	3.8%	16.0%	17.1%	42.2%	20.9%

Source: Author's elaboration

Table 9. Barriers to Leadership qualitative results.

Text	Generic Category	Sub category	Frequency	Interviewee
Physiotherapists are not specifically trained to be leaders.	1.1.	1.1.2.	6	1, 3, 4, 5, 6, 7
There are physicians and nurses' domain on big and multidisciplinary teams.	1.1.	1.1.2.	5	2, 5, 7, 8, 9
The existing structures does not allow physiotherapists to take on Leadership roles.	1.1.	1.1.2.	4	6, 7, 8, 9
Lack of interest and initiative by physiotherapists.	1.1.	1.1.2.	4	3, 5, 6, 7
Human resources management could be a barrier to lead.	1.1.	1.1.2.	3	1, 4, 8
Excess workload reserves no time for a group meeting nor for Leadership.	1.1.	1.1.2.	3	4, 5, 7
Physiotherapists don't see the need for a leader to be present on a team.	1.1.	1.1.2.	2	3, 5
Traditional focus on clinical practice takes a little bit away the purpose that the physiotherapist could lead.	1.1.	1.1.2.	1	6
Physiotherapy uneven understanding and recognizing, due to a lack of health literacy.	1.1.	1.1.2.	1	5
Physiotherapists forget to develop soft skills.	1.1.	1.1.2.	1	6

Source: Author's elaboration

Considering questionnaire answers, the main barriers identified were similar to the Healthcare Management barriers findings. Results suggest that 1) *organizational structures*, as well as 2) *other health-related professions domain*, were considered to be a barrier to these professionals to lead, which was identified by Emer McGowan & K. Stokes (2015) and Thornton (2016) on their investigations. Also, 3) *lack of time* for Leadership was considered a barrier by the participants, meeting Horstmann & Remdisch (2019) and Peltzer *et al.* (2015) conclusions regarding this theme, and 4) *lack of preparatory training to lead* was also noted, as previously observed in the literature (McGowan *et al.*, 2019; McGowan & K. Stokes, 2015; Peltzer *et al.*, 2015).

Regarding physiotherapists focus on clinical practice that could call into question their recognition as leaders, as Hassmiller & Combes (2012) stated in their study, there is no consensus on this investigation, given the array of responses: 23.7% disagrees with the statement, 25.1% neither agrees nor disagrees, and 32.1% agrees. During the interviews, only one physiotherapist mentioned that factor, which makes this a topic to be further explored.

Looking to the interviews' results, most of the participants referred that *physiotherapists are not specifically trained to be leaders* during their degrees, like literature addresses (McGowan *et al.*, 2019; McGowan & K. Stokes, 2015; Peltzer *et al.*, 2015), however, some defended the idea that Leadership is a process and that it takes time to be able to lead: "(…) *are Leadership processes that are being built.*" (Interviewee 4). Another mentioned barrier was *physicians and nurses' domain on Leadership* regarding big multidisciplinary teams, which is in line with bibliography findings (Khoury *et al.*, 2011; Peltzer, 2015; Sundean & McGrath, 2016; McGowan & Stokes, 2019), still, some participants highlighted that, in smaller teams, physiotherapist is a key piece to interrelate the patient rehabilitation process and, thus, lead.

Other qualitative findings that meet both literature and quantitative results are the *existing structures*, that bar Leadership to physiotherapists, *lack of time* due to excessive workload, and *traditional focus on clinical practice* that calls into question their recognition as leaders – "*That traditional idea that the physiotherapist "does" (...) sometimes takes away the purpose that the physiotherapist can lead*" (Interviewee 6) (Hassmiller & Combes, 2012b; Horstmann & Remdisch, 2019; Emer McGowan et al., 2016; Thornton, 2016b).

Nonetheless, like Healthcare Management barriers' results, there is no consensus regarding physiotherapists' interest to lead, in this study. While most participants in the questionnaire rated their response as having an interest in leading a working team, the physiotherapists interviewed reported to feel a lack of interest and initiative in leading, among the profession. "*If I speak for myself (…) I am interested in this type of role (…). But I see a lot of colleagues*

who disconnect a lot and who don't even take a firm stand in what they do, or in the environments in which they are inserted in (...)." (Interviewee 5). As such, only qualitative results meet the literature findings (Khoury *et al.*, 2011; McGowan & Stokes, 2019; Peltzer *et al.*, 2015; Sundean & McGrath, 2016).

Regarding gender disparities, the results of this investigation do not meet McGowan *et al.* (2019), McGowan & K. Stokes (2015), and Thornton (2016) conclusions, as stated in the Literature Review. Both quantitative and qualitative samples do not consider gender bias as a barrier to physiotherapists be involved on Leadership. "*I never felt offended or disowned by being a woman, no, no.*" (Interviewee 1).

Interestingly, new ideas appeared from the interviews, regarding Leadership. Three out of nine participants stated that *human resources management* could be really challenging and sometimes a barrier to Leadership – *"(...) the main problems in the processes of Leadership, at this moment, clearly it is, the management of resources that are people.*" (Interviewee 4). Other professionals stated that physiotherapists *don't see the need for a leader to be present on a team*, there is an *uneven understanding and recognizing* of Physiotherapy, and *physiotherapists often forget to develop soft skills*, so relevant to lead.

7.3. Drivers to physiotherapists' appointment and involvement in Healthcare Management

The objective of this third research question was to understand which factors drive/facilitate physiotherapists' access to Healthcare Management. Regarding quantitative findings it is possible to see that 1) networking and 2) health policy knowledge are relevant elements for physiotherapists ascend to Management roles. The same sample also 3) recognized *Management as an important capability* to Physiotherapy and 4) *Leadership as a relevant skill* for Healthcare Management. The questionnaire results are summarized in Table 9.

Table 10. Healthcare Management Drivers – quantitative results.

Question	Likert Scale 1-5				
	1	**2**	**3**	**4**	**5**
2	0.7%	2.8%	11.5%	50.9%	34.1%
6	2.1%	10.1%	30.7%	41.8%	15.3%
10	3.5%	11.8%	10.5%	41.8%	32.4%
11	48.8%	35.2%	3.8%	6.3%	5.9%

Source: Author's elaboration

This theme was also addressed during the interviews and the main drivers pointed out were 1) networking and 2) knowledge on health policy and laws, referred by six out of nine physiotherapists, which meets quantitative findings. Furthermore, 3) management skills development, 4) resources availability, and 5) time balance between management and clinical practice were highlighted by five interviewees.

Another facilitator referred by the majority during the qualitative data collection was 5) *soft-skills development* as an important factor in Healthcare Management success. Characteristics like persistence, conviction, communications, active listening, and organization were the ones mainly stated. "*Auditory communication is very important, visual communication, they are all extremely important soft skills that most physiotherapists do not master.*" (Interviewee 4). Also, 6) *years of professional experience*, 7) the *founding of the Physiotherapists' Order*, and 8) availability of *Management training programs for physiotherapists* were pinpointed as drivers for Healthcare Management involvement and appointment.

Still, on emerging assumptions from interviews, some physiotherapists referred that 9) the *clinical practice quality* could be an important driver to Physiotherapy recognition by other professions and thus increase its chance to be involved in Healthcare Management subjects. Accordingly, one of the participants also said that 10) physiotherapists are able to intervene in a wide range of areas, being another driver do Healthcare Management. Table 10 presents interviews findings.

Table 11. Healthcare Management Drivers – qualitative results.

Text	Generic Category	Sub category	Frequency	Interviewee
Increase knowledge in health policy and laws.	1.2.	1.2.1.	6	1, 3, 6, 7, 8, 9
Networking.	1.2.	1.2.1.	6	3, 5, 6, 7, 8, 9
Management skills development.	1.2.	1.2.1.	5	2, 4, 7, 8, 9
Availability of resources that could help to manage.	1.2.	1.2.1.	5	1, 3, 5, 6, 7
Time balance between management and clinical practice.	1.2.	1.2.1.	5	1, 4, 5, 6, 7
Soft skills that drive Management: persistence, conviction, communication, active listening, organization.	1.2.	1.2.1.	5	3, 4, 6, 7, 9
Years of professional experience.	1.2.	1.2.1.	3	1, 7, 9
The Order of Physiotherapists, bringing visibility and organization to the profession.	1.2.	1.2.1.	2	4, 5
Management training programs available to physiotherapists.	1.2.	1.2.1.	2	4, 5
Practice quality, so that people end up recognizing that the intervention is useful and necessary.	1.2.	1.2.1.	2	3, 4
The range of intervention areas in Physiotherapy allows the physiotherapist to fit in various projects.	1.2.	1.2.1.	1	6

Source: Author's elaboration

Thus, and comparing to the Literature Review, drivers like leveraging relationships and networking, health policy knowledge, and resources available were the three main drivers stated by both samples that meet Alhassan *et al.* (2020), Murt *et al.* (2019), and Shariff (2014, 2015b, 2015a) results regarding Healthcare Management facilitators. However, many other assumptions were raised from the interviews, as mentioned before, and most of them are common to Leadership drivers, which can be seen below, on the next research question.

7.4. Drivers to physiotherapists' engagement and acknowledgment in Leadership

Finally, the fourth and last research question aimed to understand wich factors facilitate and drive physiotherapists' engagement on Leadership roles, through both quantitative and qualitative data collection. On the questionnarie, participants considered 1) networking and 2) Leadership skills development as drivers for physiotherapists to lead. They also recognized Leadership as an important cabapility in Physiotherapy. The questionnaire and interviews results are aggregated on tables 11 and 12.

Table 12. Leadership Drivers – quantitative results.

Question	Likert Scale 1-5				
	1	**2**	**3**	**4**	**5**
12	1.4%	2.1%	15.0%	49.5%	32.1%
15	2.1%	11.1%	30.7%	35.5%	20.6%
20	0.0%	0.3%	4.2%	51.9%	43.6%

Source: Author's elaboration

Table 13. Leadership Drivers – qualitative results.

Text	Generic Category	Sub category	Frequency	Interviewee
Having soft skills for Leadership: proactivity, sociability, adaptability, motivational, innovation, inspirational, critical, communication, organization, empathy, time-management.	1.2.	1.2.2.	9	1, 2, 3, 4, 5, 6, 7, 8, 9
Leadership skills development.	1.2.	1.2.2.	6	2, 3, 4, 6, 7, 8
Recognition by the hierarchical superior so appointment to lead can happen.	1.2.	1.2.2.	3	1, 3, 8
Fostering training.	1.2.	1.2.2.	2	1, 9
The team needs to have a purpose and it has to be clear.	1.2.	1.2.2.	2	4, 6
Peer support.	1.2.	1.2.2.	2	3, 8
Knowing how to work in interdisciplinary teams.	1.2.	1.2.2.	2	6, 9
To have time to lead and think more calmly of situations.	1.2.	1.2.2.	2	3, 7
Management knowledge.	1.2.	1.2.2.	1	4
Resources availability drives Leadership.	1.2.	1.2.2.	1	3

Source: Author's elaboration

According to the interviewees' testimonies, 1) *soft skills are the main drivers* for physiotherapists to engage in Leadership. Characteristics like proactivity, sociability, adaptability, motivational and inspirational attitudes, innovation, critic sense, communication, organization, empathy, and time-management were overall referred by the nine participants. "*The professionals who assumed these positions were also the ones who communicated better (...) I think it makes all the difference. (...) And organizational capacity (...) I, at least, had to learn to have it.* " (Interviewee 7). Also, 2) this *soft skills development* was referred to be a facilitator as well, by six out of nine interviewees, and 3) *time and resources availability* were referred too.

Still, new drivers to physiotherapists engagement in Leadership roles emerged from the interviews, where some participants pinpointed that 4) *recognition by the hierarchical superior*, 5) *training fostering*, 6) *having a team purpose*, 7) *peer support*, 8) *ability to work in*

multidisciplinary teams, and 9) *Management knowledge* are also facilitators to Leadership. In this sense, networking, having and developing soft skills, and time and resources availability were both stated by this investigation' results and bibliography (Bismark *et al.*, 2015; Horstmann & Remdisch, 2019; Javadi *et al.*, 2016; E. McGowan *et al.*, 2019). However, gender equality was not mentioned by the sampling as a driver, like Javadi *et al.* (2016) findings, but it was not considered as a barrier in previous research questions, as mentioned.

In the end, and in all interviews, there were differences between contexts of public practice versus contexts of private practice. These asymmetries were widely mentioned by the interviewees and it would be useful, in future investigations, to understand the extent to which different contexts may have different influences on drivers and barriers to physiotherapists involvement on Healthcare Management and Leadership, in Portugal.

In order to estimate the internal consistency of the purposed questionnaire we used the Cronbach's alpha (Cronbach, 1951), since it is was conceived with the proposition that it should be applied to attitude scales and it is, in fact, "the statistic which is most widely used today for estimating internal consistency" (Gardner, 1995: 285). These measure range between 0 and 1, and the closest the Cronbach's alpha coefficient is to 1, the stronger the internal consistency of the items of the scale (Hinton et al., 2014). For the measurement scale used, a Cronbach's alpha of 0.55 was obtained, which means that the factors under study are directly related to each other in a medium/good way.

VIII – Conclusions

8.1. Final Considerations

The changes in Health reality during the last years have increased pressure on Healthcare Management and Leadership, which makes it indispensable for organizations to rethink their strategies and adapting them to the competitive environment in which they live (Lopes da Costa & António, 2011). As such, some authors defend boards' diversity when it comes to involving healthcare practitioners in decision-making once it can increase success and improve organizational outcomes, as well as leverage their valuable expertise (Bismark *et al.*, 2015; McBride, 2017; Sundean *et al.*, 2017).

Hereupon, this investigation aimed to understand drivers and barriers to physiotherapists' involvement in Healthcare Management and Leadership roles, in Portugal. Following an extensive Literature Review on this objective, and after conducting nine interviews with Portuguese physiotherapists and collecting 290 answers to a questionnaire, it was possible to reach a set of pertinent conclusions about the proposed theme.

As evidenced in eight of the nine interviews carried out and also by most of the questionnaire answers (59.3% of the respondents), the lack of skills and training at the level of the degree is one of the barriers to physiotherapists' involvement in Health Management positions, having been, in many interviews, referred in the first place by the participants as one of the main barriers when they were asked about the theme. This finding is fully aligned with the Literature Review, that states nurses have a lack of formal training which limits their access to Management roles (Alhassan *et al.*, 2020; Murt *et al.*, 2019; Prybil, 2016; Sundean & McGrath, 2016). As mentioned before, most of the studies that support this investigation were performed with nurses, due to a lack of evidence regarding this topic in Physiotherapy.

Still on the barriers to Healthcare Management engagement, overall, participants agreed that the current health structures do not allow physiotherapists to get into Management roles (79.4% of the questionnaire respondents), which most of the times is directly related to the existence of policies and laws that bar physiotherapists involvement in these positions, as eight of the nine interviewees mentioned as barriers to this role appointment. As such, from this investigation, it is possible to conclude that the current Portuguese Healthcare system design, as well as its policies and laws, is a barrier to physiotherapists to participate in decision-making and Management-related subjects, which confirms Prybil (2016) findings.

Also, the lack of appreciation of the Physiotherapy profession was pointed out by both samples as a barrier, like Prybil (2016) stated in his study with Nursing. In total, 90.6% of the physiotherapists that answered the questionnaire recognized it, and four in nine interviewees mentioned this factor as barrier and some added that it could be due to a lack of health literacy from the Portuguese society. More, other health-professions domain was too considered to be a barrier to Management by 93.0% of the questionnaire participants, and five of the interviewees said that physicians and nurses are usually the health-professionals that occupy these positions, as Khoury *et al.* (2011) and Lucena (2011) mentioned in their findings.

The excessive workload that physiotherapists usually have was pinpointed by 62.7% of the quantitative sample, and four of the professionals interviewed, as a barrier to physiotherapists involvement in Healthcare Management, as suggested by Khoury *et al.* (2011) in his investigation. However, new potential barriers emerged from the interviews, like salary compensation, that remains the same and the physiotherapist only accumulate roles, traditional focus on clinical practice which takes away the idea that physiotherapists are able to Manage, professional accommodation, lack of human resources and guidance of the profession, and also the timing in which Management-related subjects are taught during the degrees. These factors should be addressed to future investigations, from now.

Still regarding barriers addressed on this study, but for Leadership roles, conclusions are quite similar to the Healthcare Management barriers. Participants consider that physiotherapists don't receive training for Leadership during the degree (62.0% of the questionnaire's answers and six in nine interviewees), and that there is other health-related professions domain in Leadership roles (95.9% of the quantitative sample and 5 interviewees), specially physicians and nurses. They also agree on current structures as barriers to Leadership access (87.4% of the respondents and four interviewees have mentioned it).

However, unlike Healthcare Management findings and the literature (Hassmiller & Combes, 2012), it is not consensual between the participants of the quantitative sample if the traditional focus on clinical practice is, or is not, a barrier to these professionals' engagement in Leadership roles, and only one interviewee has mentioned it. In the same reasoning, both Healthcare Management and Leadership barriers' results, do not reveal agreement regarding physiotherapists' interest to manage or lead, in this study.

While most participants in the questionnaire rated their response as having an interest in managing a health unit or leading a working team, the physiotherapists interviewed reported to feel a lack of interest and initiative, amongst the profession, like literature suggests (Emer McGowan & Stokes, 2019; Peltzer *et al.*, 2015). As such, more investigations regarding interest

topics and clinical practice focus should be addressed. Regarding gender disparities for physiotherapists' involvement in Healthcare Management and Leadership roles, both samples did not recognize it as a barrier, unlike Murt *et al.* (2019) findings.

In what concerns to drivers for Healthcare Management, findings reveal that networking is a relevant factor to increase involvement (57.1% of the respondents and six interviewees). As well, 74.2% of the quantitative sample and six of the nine physiotherapists interviewed considered knowledge regarding health legislation and policies as a facilitator to Healthcare Management roles, and 84.0% of the respondents considered Leadership skills to drive Healthcare Management. In the same reasoning, five out of nine interviewees stated that Management skills development, as well as soft skills (persistence, conviction, communication, active listening, organization). All these statements are aligned with the Literature Review (Alhassan *et al.*, 2020; Murt *et al.*, 2019; Shariff, 2014, 2015b, 2015a).

On Leadership roles, the sample largely agrees that Leadership skills development is a key facilitator: 95.5% of the respondents agree with this statement, and nine out of nine physiotherapists interviewees mentioned it in their testimonies, referring characteristics like proactivity, sociability, adaptability, motivational, innovation, inspirational, critical, communication, organization, empathy, time-management, as the most relevant ones. These findings are in full accordance with Bismark *et al.*, 2015, Horstmann & Remdisch, 2019, Javadi *et al.*, 2016, and E. McGowan *et al.*, 2019 studies' findings.

Also, in the likeliness of Healthcare Management drivers' results, networking was considered by the majority of the quantitative sample (56.1%) as significant for Leadership roles' engagement and appointment. Nonetheless, qualitative results are not aligned with this finding, which makes it unclear and not totally in line with the literature review. But, new topics emerged and deserve to be further explored in future investigations.

Even so, it was possible to answer to the four research questions proposed in the beginning of this work as increase the contribution to Physiotherapy and Business Administration fields. There were many agreements with the Literature Review, but also some disagreements and, also important, new and uncovered drivers and barriers to explore in the future. It is plausible to say that this investigation fully achieved its objective, being pioneer in Portugal and a starting point to boost Healthcare Management and Physiotherapy profession.

8.2. Contribution for Physiotherapy and Business Administration

The potential for the involvement of health professionals who work directly with communities is a topic that has been debated in recent years, given the benefits that come from their professional experiences, as well as highly qualified and dedicated patient inputs and insights that enrich the discussions and decision-making in health management boards (Prybil, 2016). This, consequently, results in an increase in the institution's value to the community, and an optimization in Healthcare Organizations' profit (AEFLM, 2019; Edmans, 2020).

As such, this investigation is the first in Portugal and one of the few in the world that explores the factors that influence access and involvement in Healthcare Management and Leadership from health professionals, namely physiotherapists. In this sense, these study inputs are considered to be a strongly positive and significant contribution to the Physiotherapy profession in Portugal, insofar as it makes known the perceptions of 287 Portuguese physiotherapists about the main difficulties and incentives that currently face in the labor market.

Regarding Business Administration, this research reinforces before hospital managers the pertinence and need to involve and appoint physiotherapists in health decision-making, thus making them aware of the current factors perceived by the professionals themselves that facilitate and inhibit the processes, in this theme. As such, it is expected to raise awareness and optimize the health units in Portugal, both through the quality of the services provided and the income generation, over a window of opportunities for physiotherapists' involvement in Healthcare Management and Leadership roles.

In short, this work is a pioneer within its theme and an important leveraging for the Physiotherapy profession and the innovation of health services, in Portugal, making an introductory contribution due to the lack of evidence. It should also be noted that the labor reality in Portugal has its particularities, which may also explain the divergences in the results comparing to the Literature Review. In this sense, it is also important to note that it is essential to continue to carry out in-depth research that characterizes and analyzes this theme in detail, in order to allow the identification of key factors that make it possible to develop new strategies to improve health services.

8.3. Acquired Experience

It is priceless how enriching this work has been for me, both personally and professionally. Upon entering the MSc in Business Administration I already had the intention of carrying out a final project where I could combine Physiotherapy with Business Management, and this investigation was the culmination of professional ideas and intentions that I had already thought of and now I had the opportunity and the privilege to materialize. It allowed me to grow as a physiotherapist outside the clinical practice boundaries and embrace Management, which I really like and where I intend to continue my path. With this thesis dissertation, I increased knowledge, matured my professional ambitions and deepened, not only the potential of Physiotherapy, but also Management breadth.

It was the first time that I carried out a qualitative data collection, about which I was curious to explore and learn more, and which turned out to be very gratifying about the testimonies collected and the inputs I received to continue the development of this theme from now onwards. In that sense, I was able to expand my research skills, this being a vital area for the increase of scientific knowledge and in which I would like to invest perpetually and continue my academic life.

I consider the development of research of this nature extremely pertinent, at a time when health challenges are numerous and Physiotherapy in Portugal is growing exponentially - its Order is being installed, and I strongly believing in its potential to leverage Management and Leadership. The current global health crisis, the Covid-19 pandemic, arose during the course of this work, having emphasized the relevance of this theme at a time when the world's health is fragile and needs all of us, in all ways.

With this, new and different ways of looking at Health Management and Leadership will emerge globally and research investigations like this, which bring into play different and interesting possibilities to manage the business and health of our communities, will be increasingly necessary. I am genuinely happy that, in the end, I managed to converge two of the professional areas with which I most identify and match them so that they are the starting point for new health business strategies, where everyone can see the best that Physiotherapy and Business Administration can do together.

8.4. Study Limitations

First, it is important to take into account that the findings presented in this investigation, result from limitations inherent to a convenience sample that was reduced in terms of size (287 physiotherapists in the sample *versus* 13.000 physiotherapists in Portugal) and the fact of reproducing results from a certain country, Portugal. As such, findings of this research can only be interpreted in the light of the sample and couldn't be transferred or deduced to the general population, which reduces the external validity of the study, although it has reinforced some of the existing theory regarding drivers and barriers to healthcare professionals' involvement in Healthcare Management and Leadership roles.

There was also a limitation related to the questionnaire used for quantitative data collection, that was prepared by the author. Although this measuring instrument have been created regarding Literature Review findings and methods, as well as validated by the advisors of this thesis and pre-tested by a group of physiotherapists, no previous model was available to guide its construction. As such, it is not possible to assume its validity.

8.5. Future Research Suggestions

Some of the limitations mentioned above can be mitigated through changes to be considered in further investigations, so this sub-chapter will suggest them. First, it would be interesting to understand individually, and in different researched, the drivers and the barriers to physiotherapists' involvement in Healthcare Management roles, and then in Leadership ones (or vice-versa), in order to deepen the conclusions and tighten the quality and accuracy of the new findings.

As well, given the particularities of the labor market in Portugal for physiotherapists, it is necessary to assess the existent differences in the public and the private working contexts. Some of the participants of this study, that have before experienced both contexts, mentioned to feel different drivers and barriers to the engagement on these roles. In the same reasoning, the organization dimension has a great deal of influence on that because workforce and tasks are more, or less, targeted according the Healthcare Organization is bigger or smaller.

Other suggestions are to investigate with Healthcare Managers their perceptions regarding this theme and the possibility to integrate physiotherapists in health decision-making, and to do research within universities to understand which relevance is given to the topic and in which manner it can have an influence on the physiotherapists' activity. In the end, it is also suggested

to check with the Portuguese Order of the Physiotherapists what are the perceptions and opinions regarding physiotherapists coverage on Healthcare Management and Leadership roles, exploring new strategies to make it happen.

Bibliography

Alhassan, A., Siakwa, M., Kumi-Kyereme, A., & Wombeogo, M. (2020). Barriers to and Facilitators of Nurses' Political Participation in Ghana. *Policy, Politics, and Nursing Practice*, *21*(1), 29–42. https://doi.org/10.1177/1527154419899602

Alilyyani, B., Wong, C. A., & Cummings, G. (2018). Antecedents, mediators, and outcomes of authentic leadership in healthcare: A systematic review. *International Journal of Nursing Studies*, *83*, 34–64. https://doi.org/10.1016/j.ijnurstu.2018.04.001

APFISIO. (2020). *O Perfil de Competências do Fisioterapeuta*. 10–17.

Associação Portuguesa de Fisioterapeutas. (2017). A Fisioterapia cresce em Portugal. Retrieved at November 5, 2019, from http://www.apfisio.pt/fisioterapia-cresce-portugal/

Bardin, L. (1977). *Análise de conteúdo*. Edições 70.

Bismark, M., Morris, J., Thomas, L., Loh, E., Phelps, G., & Dickinson, H. (2015). Reasons and remedies for underrepresentation of women in medical leadership roles: A qualitative study from Australia. *BMJ Open*, *5*(11). https://doi.org/10.1136/bmjopen-2015-009384

Brun-Cottan, N., McMillian, D., & Hastings, J. (2018). Defending the art of physical therapy: Expanding inquiry and crafting culture in support of therapeutic alliance. *Physiotherapy Theory and Practice*, *00*(00), 1–10. https://doi.org/10.1080/09593985.2018.1492656

Buchbinder, S. B., & Shanks, N. H. (2017). Introduction to Health Care Management. In S. B. Buchbinder & N. H. Shanks (Eds.), *Jones & Bartlett Learning*. Jones & Bartlett Learning. https://doi.org/10.1108/lhs.2008.21121cae.001

Bureau of Labor Statistics (2020, Mar 11). Healthcare Occupations. https://www.bls.gov/ooh/healthcare/home.htm

Carmo, H. & Ferreira, M. (1998). *Metodologia da Investigação: Guia para Auto-aprendizagem*. Universidade Aberta.

Chartered Society of Physiotherapy. (2020, Feb 23). *What is Physiotherapy?* https://www.csp.org.uk/careers-jobs/what-physiotherapy

Chisholm-Burns, M. A., Spivey, C. A., Hagemann, T., & Josephson, M. A. (2017). Women in leadership and the bewildering glass ceiling. *American Journal of Health-System Pharmacy*, *74*(5), 312–324. https://doi.org/10.2146/ajhp160930

Costa, C. R. S., & Montagna, E. (2015). *A formação acadêmica do fisioterapeuta para sua atuação na gestão em saúde*. *39*(3), 252–256. https://doi.org/http://dx.doi.org/10.7322/abcshs.v40i3.804

Coutinho, I. S., & Pedro, L. (2018). A Fisioterapia em Portugal. *Fisioterapia e Pesquisa*, *25*(4), 363–363. https://doi.org/10.1590/1809-2950/00000025042018

CPA. (2012). *Framework for Professional Development of Leadership Core Competencies*.

Creswell, J. W. (2014). Research Desing: Qualitative, Quantitative, and Mixed Methods Approaches. In *Sage Publications, Inc.: Vol. №3* (4th ed.).

Crisp, L. N., Berwick, D., Kickbusch, I., Antunes, J. L., Barros, P. P., & Soares, J. (2014). Um Futuro para a Saúde - todos temos um papel a desempenhar. In *Fundação Calouste Gulbenkian*. https://content.gulbenkian.pt/wp-content/uploads/2016/03/30003652/PGIS_BrochuraRelatorioCompletoHealthPortugues.pdf%0Ahttps://gulbenkian.pt/wp-content/uploads/2016/03/PGIS_BrochuraRelatorioCompletoHealthPortugues.pdf

Daly, J., Jackson, D., Mannix, J., Davidson, P. M., & Hutchinson, M. (2014). The importance of clinical leadership in the hospital setting. *Journal of Healthcare Leadership*, *6*(December 2015), 75–83. https://doi.org/10.2147/JHL.S46161

Diário da República. (1993). *Decreto_Lei_261_93.pdf* (p. 2).

Dignam, D., Duffield, C., Stasa, H., Gray, J., Jackson, D., & Daly, J. (2012). Management and leadership in nursing: An Australian educational perspective. *Journal of Nursing Management*, *20*(1), 65–71. https://doi.org/10.1111/j.1365-2834.2011.01340.x

Duriau, V. J., Reger, R. K., & Pfarrer, M. D. (2007). A content analysis of the content analysis literature in organization studies: Research themes, data sources, and methodological refinements. *Organizational Research Methods*, *10*(1), 5–34. https://doi.org/10.1177/1094428106289252

Edmans, A. (2020). *Grow the Pie: How Great Companies Deliver Both Purpose and Profit*. Cambridge University Press

Edmonstone, J. (2015). Developing healthcare leaders and managers: course-based or practice-based? *International Journal of Healthcare*, *1*(1), 9–12. https://doi.org/10.5430/ijh.v1n1p9

Faiz, S. & Mahmoudi, K. (2017). *Handbook of Research on Geographic Information Systems Applications and Advancements*. IGI Global. 10.4018/978-1-5225-0937-0

Fernandes, A. C., Barbosa, A. M., Franco, L. A., Ferreira, A., Vaz, A., Cêncio, G., Oliveira, J., Branco, J., Santos, L. A., Mourão, L., Sousa, P. de, Campos, M., Rocha, N., Clara, N. S., & Valente, S. (2010). *A Organização Interna e a Governação dos Hospitais Ministério da Saúde*.

Field, S. (2007). Career opportunities in health care. In *Fergunson* (Vol. 47, Issue 6).

https://doi.org/10.1093/ajhp/47.6.1267

Flick, U. (2009). An Introduction To Qualitative Fourth Edition. In *SAGE Publications* (4th ed.).

Fonseca, J. P. da. (2012). *História da fisioterapia em Portugal: da origem a 1966*. http://repositorio.ipl.pt/handle/10400.21/2681

Fotiadis, D. (2016). *Handbook of Research on Trends in the Diagnosis and Treatment of Chronic Conditions*. IGI Global. 10.4018/978-1-4666-8828-5

Gardner, P. (1994). Measuring attitudes to science: Unidimensionality and internal consistency revisited. *Research in Science Education*, 25(3): 283-289.

Haddock, C. C., McLean, R. A., & Chapman, R. C. (2002). *Careers in Healthcare Management: How to Find Your Path and Follow It*. Health Administration Press. https://doi.org/10.1136/pgmj.73.863.606

Haigh, N., Walker, J., Bacq, S., & Kickul, J. (2015). Hybrid Organizations: Origins, Strategies, Impacts, and Implications. *California Management Review*, *57*(3), 293–293. https://doi.org/10.1111/j.1835-9310.1982.tb01239.x

Hassmiller, S., & Combes, J. (2012a). Nurse leaders in the boardroom: A fitting choice. *Journal of Healthcare Management*, *57*(1), 8–11. https://doi.org/10.1097/00115514-201201000-00003

Hassmiller, S., & Combes, J. (2012b). Nurse leaders in the boardroom: A fitting choice. *Journal of Healthcare Management*, *57*(1), 8–11. https://doi.org/10.1097/00115514-201201000-00003

Healthcare Administration (2020, Feb 20). *Healthcare Administration – Historical Background*. http://www.healthcareadministration.com/healthcare-management-historical-background/

Hinton, P., McMurray, I., & Brownlow, C. (2014). SPSS Explained. In *SPSS Explained*. Taylor & Francis Group. https://doi.org/10.4324/9781315797298

Horstmann, D., & Remdisch, S. (2019). Drivers and barriers in the practice of health-specific leadership: A qualitative study in healthcare. *Work*, *64*(2), 311–321. https://doi.org/10.3233/WOR-192994

Huhn, K., Gilliland, S. J., Black, L. L., Wainwright, S. F., & Christensen, N. (2019). Clinical Reasoning in Physical Therapy: A Concept Analysis. *Physical Therapy*, *99*(4), 440–456. https://doi.org/10.1093/ptj/pzy148

International Health Cooperative Organisation. (2018). *Healthcare cooperatives: a reliable enterprise model for health and wellbeing*. 4.

Jambawo, S. (2018). Transformational leadership and ethical leadership: Their significance in the mental healthcare system. *British Journal of Nursing*, *27*(17), 998–1001. https://doi.org/10.12968/bjon.2018.27.17.998

Javadi, D., Vega, J., Etienne, C., Wandira, S., Doyle, Y., & Nishtar, S. (2016). Women who lead: Successes and challenges of five health leaders. *Health Systems and Reform*, *2*(3), 229–240. https://doi.org/10.1080/23288604.2016.1225471

Khoury, C. M., Blizzard, R., Moore, W. W., & Hassmiller, S. (2011). Nursing leadership from bedside to boardroom: A gallup national survey of opinion leaders. *Journal of Nursing Administration*, *41*(7–8), 299–305. https://doi.org/10.1097/NNA.0b013e3182250a0d

Kothari, C. R. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). New Age International (P) Limited, Publishers.

Lopes da Costa, R. & António, N. (2011). The "outsourcing" as an instrument of competitiveness in the business consulting industry. *Journal of Management Research*, 3(1): 1-13.

Lucena, A. (2011). *Universidade Nova de Lisboa Fisioterapia em Portugal – As representações sociais dos médicos*.

Malik, N. (2018). Authentic leadership – an antecedent for contextual performance of Indian nurses. *Personnel Review*, *47*(6), 1248–1264. https://doi.org/10.1108/PR-07-2016-0168

Mason, D. J., Keepnews, D., Holmberg, J., & Murray, E. (2012). The representation of health professionals on governing boards of health care organizations in New York City. *Journal of Urban Health*, *90*(5), 888–901. https://doi.org/10.1007/s11524-012-9772-9

McBride, A. B. (2017). Serving on a hospital board: A case study. *Nursing Outlook*, *65*(4), 372–379. https://doi.org/10.1016/j.outlook.2016.12.006

McGowan, E., Elliott, N., & Stokes, E. (2019). Leadership capabilities of physiotherapy leaders in Ireland: Part 2. Clinical specialists and advanced physiotherapy practitioners. *Physiotherapy Theory and Practice*, *35*(11), 1044–1060. https://doi.org/10.1080/09593985.2018.1469179

McGowan, Emer, & K. Stokes, E. (2015). Leadership in the profession of physical therapy. *Physical Therapy Reviews*, *20*(2), 122–131. https://doi.org/10.1179/1743288X15Y.0000000007

McGowan, Emer, Martin, G., & Stokes, E. (2016). Perceptions of Leadership: Comparing Canadian and Irish Physiotherapists' Views. *Physiotherapy Canada*, *68*.

McGowan, Emer, & Stokes, E. (2019). Leaning in and speaking up? Students' perceptions of female leadership in healthcare. *Physiotherapy Practice and Research*, *40*(2), 167–176. https://doi.org/10.3233/PPR-190138

Ministério da Saúde. (2019). *Relatório Anual: Relatório e Contas do Ministério da Saúde e do Serviço Nacional de Saúde em 2018*.

Murt, M. F., Krouse, A. M., Baumberger-Henry, M. L., & Drayton-Brooks, S. M. (2019). Nurses at the table: A naturalistic inquiry of nurses on governing boards. *Nursing Forum*, *54*(4), 575–581. https://doi.org/10.1111/nuf.12372

National Physiotherapy Advisory Group. (2017). *Competency profile for Physiotherapists in Canada*. 1–23. http://www.clpna.com/members/continuing-competency-program/competency-profile-for-lpns/

Noh, J. W., Kwon, Y. D., Yoon, S. J., & Hwang, J. I. (2011). Internal and external environmental factors affecting the performance of hospital-based home nursing care. *International Nursing Review*, *58*(2), 263–269. https://doi.org/10.1111/j.1466-7657.2010.00868.x

Northouse, P. G. (2016). *Leadership: theory and practice.* Seventh edition. SAGE Publications, Inc.

Nunes, F. G., & Martins, L. M. (2018). Janusian, anomic, agent, and steward: How employees perceive the identity of healthcare organizations. *International Journal of Healthcare Management*, *11*(2), 143–153. https://doi.org/10.1080/20479700.2017.1297884

Page, C. P. (2010). *Management in Physical Therapy Practices*. F.A. Davis Company.

Peltzer, J. N., Ford, D. J., Shen, Q., Fischgrund, A., Teel, C. S., Pierce, J., Jamison, M., & Waldon, T. (2015). Exploring leadership roles, goals, and barriers amongKansas registered nurses: A descriptive cross-sectional study. *Nursing Outlook*, *63*(2), 117–123. https://doi.org/10.1016/j.outlook.2015.01.003

PORDATA. (2020, May 5). *Despesa corrente em cuidados de saúde em % do PIB*. https://www.pordata.pt/Portugal/Despesa+corrente+em+cuidados+de+sa%C3%BAde+em percentagem+do+PIB-610

Prybil, L. D. (2016). Nursing engagement in governing health care organizations. *Journal of Nursing Care Quality*, *31*(4), 299–303. https://doi.org/10.1097/NCQ.0000000000000182

Rebelo, P. J. L. (2008). *Estudo exploratório sobre as atitudes dos profissionais de saúde face à eficácia da fisioterapia e dos fisioterapeutas e sua relação com a auto eficácia percebida pelos fisioterapeutas: contributo para o estudo das representações sociais da fisioterapia e*. http://repositorioaberto.uab.pt/handle/10400.2/723

Ree, E., & Wiig, S. (2020). Linking transformational leadership, patient safety culture and work engagement in home care services. *Nursing Open*, *7*(1), 256–264. https://doi.org/10.1002/nop2.386

Ribeiro, N., Yücel, İ., & Gomes, D. (2018). How transformational leadership predicts employees' affective commitment and performance. *International Journal of Productivity and Performance Management*, *67*(9), 1901–1917. https://doi.org/10.1108/IJPPM-09-2017-0229

Saxe-Braithwaite, M., & Gautreau, S. (2019). Authentic leadership in healthcare organizations: A study of 14 chief executive officers and 70 direct reports. *Healthcare Management Forum*. https://doi.org/10.1177/0840470419890634

Schwartz, D. B., Spencer, T., Wilson, B., & Wood, K. (2011). Transformational Leadership: Implications for Nursing Leaders in Facilities Seeking Magnet Designation. *AORN Journal*, *93*(6), 737–748. https://doi.org/10.1016/j.aorn.2010.09.032

Shaik, A., & Shemjaz, A. (2014). The Rise of Physical Therapy: A History in Footsteps. *Archives of Medicine and Health Sciences*, *2*(2), 257. https://doi.org/10.4103/2321-4848.144367

Shariff, N. (2014). Factors that act as facilitators and barriers to nurse leaders' participation in health policy development. *BMC Nursing*, *13*(1), 1–13. https://doi.org/10.1186/1472-6955-13-20

Shariff, N. (2015a). A Delphi survey of leadership attributes necessary for national nurse leaders' participation in health policy development: An East African perspective. *BMC Nursing*, *14*(1), 1–8. https://doi.org/10.1186/s12912-015-0063-0

Shariff, N. (2015b). Empowerment model for nurse leaders' participation in health policy development: An east African perspective. *BMC Nursing*, *14*(1), 1–11. https://doi.org/10.1186/s12912-015-0078-6

Sharma, K. N. (2012). Exploration of the History of Physiotherapy. *Scientific Research Journal of India*, *1*(1), 19–22.

Shorten, A., & Smith, J. (2017). Mixed methods research: Expanding the evidence base. *Evidence-Based Nursing*, *20*(3), 74–75. https://doi.org/10.1136/eb-2017-102699

Sousa, P. (2009). O sistema de saúde em Portugal: realizações e desafios Palestra. *Acta Medica Portuguesa*, *22*(1), 884–894.

Summerfield, M. R. (2014). Leadership: a simple definition. *American Journal of Health-System Pharmacy : AJHP : Official Journal of the American Society of Health-System Pharmacists*, *71*(3), 251–253. https://doi.org/10.2146/ajhp130435

Sundean, L. J., & McGrath, J. M. (2016). A metasynthesis exploring nurses and women on governing boards. *Journal of Nursing Administration*, *46*(9), 455–461. https://doi.org/10.1097/NNA.0000000000000375

Sundean, L. J., Polifroni, E. C., Libal, K., & McGrath, J. M. (2017). The rationale for nurses on boards in the voices of nurses who serve. *Nursing Outlook*, *66*(3), 222–232. https://doi.org/10.1016/j.outlook.2017.11.005

Thiese, M. S. (2014). Observational and interventional study design types; an overview. *Biochemia Medica*, *24*(2), 199–210. https://doi.org/10.11613/BM.2014.022

Thornton, H. (2016a). Current thinking on Leadership and Physiotherapy Practice. *Charted Society of Physiotherapy*. http://www.csp.org.uk/documents/current-thinking-leadership-physiotherapy-practice-report

Thornton, H. (2016b). Current thinking on Leadership and Physiotherapy Practice. *Charted Society of Physiotherapy*. https://doi.org/10.1136/pgmj.73.863.606

Umrani, W. A., & Afsar, B. (2019). How transformational leadership impacts innovative work behaviour among nurses. *British Journal of Health Care Management*, *25*(12), 1–16. https://doi.org/10.12968/bjhc.2018.0069

Velha, A. & Lobo, V. (2020, Feb 24). *Médicos ou Políticos - Qual a melhor solução para a gestão de um sistema de saúde?* AEFML. https://www.aefml.pt/ressonancia/2019/5/14/mdicos-ou-polticos-qual-a-melhor-soluo-para-a-gesto-de-um-sistema-de-sade

Vergara, S. C. (2006). *Projectos e relatórios de pesquisa em administração.* Atlas

Vilelas, J. (2009). *Investigação: o processo de construção do conhecimento.* Sílabo.

Walshe, K., & Smith, J. (2011). Healthcare management. In *Postgraduate Medical Journal* (Vol. 73, Issue 863). https://doi.org/10.1136/pgmj.73.863.606

World Confederation for Physical Therapy. (2017). Description of physical therapy. *Treatment Services Bulletin. Canada. Department of Veterans' Affairs*, *2*(5), 11–16.

Yin, R. K. (2011). *Qualitative Research from Start to Finish*. The Guilford Press.

Appendix

Appendix A – Questionnaire (English Version)

Drivers and Barriers to Physiotherapists' Involvement in Healthcare Management and Leadership Roles, in Portugal

This questionnaire is intended for a study that is being developed by the student Rafaela da Costa Pereira, within the scope of the thesis dissertation of the MSc in Business Administration, at ISCTE Business School (IBS). This research aims to meet drivers and barriers to physiotherapists' involvement in Healthcare Management and Leadership roles, in Portugal.

As the target population will be exclusively considered **physiotherapists who exercise their professional activity in Portugal**.

The questionnaire consists of 22 questions and will take about 15 to 20 minutes to complete. There are no "right" or "wrong" answers, so answer as honestly as possible. Your participation is essential to conduct this study, contributing to the increase of knowledge in this area.

Any question should be addressed to the responsible researcher, by e-mail to rcpaa2@iscte-iul.pt.

Welcome!

Thanks in advance for your participation.

If you have already answered this questionnaire, please don't do it again.

There are 33 questions in this survey.

Questionnaire - Healthcare Management

Please read each sentence carefully before replying. Indicate your level of agreement with the statements presented, according to a scale of 1 (Totally Disagree) to 5 (Totally Agree). Also consider the following definition:

▪ Healthcare Management - it involves the supervision of an organization or health unit, providing leadership, management and orientation, in order to guarantee the best quality of the services provided.

1. **At the degree level, the physiotherapist has basic training in Healthcare Management scope.** Please select only one of the following options:
   - 1 – Totally Disagree
   - 2 – Disagree
   - 3 – Neither Agree, Nor Disagree
   - 4 – Agree
   - 5 – Totally Agree

2. **Healthcare Management is a relevant skill for the physiotherapist's functions.** Please select only one of the following options:
   - 1 – Totally Disagree
   - 2 – Disagree
   - 3 – Neither Agree, Nor Disagree
   - 4 – Agree
   - 5 – Totally Agree

3. **The current structure of the National Health Service (SNS) promotes physiotherapists' involvement in the management of their units.** Please select only one of the following options:
   - 1 – Totally Disagree
   - 2 – Disagree
   - 3 – Neither Agree, Nor Disagree
   - 4 – Agree
   - 5 – Totally Agree

4. **The lack of recognition of Physiotherapy is a barrier to the attribution of Healthcare Management positions to the physiotherapist.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

5. **Once Physiotherapy is a profession mostly performed by women, this factor is an obstacle to their involvement in Healthcare Management.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

6. **Networking facilitates physiotherapist's appointment to Healthcare Management positions.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

7. **As a physiotherapist, I am interested in taking over the management of a health unit.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

8. **The physiotherapist's workload allows enough time to dedicate to Healthcare Management.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

9. **Within the scope of Health Management, it is notorious the dominance of other health-related professions (example: Medicine, Nursing).** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

10. **Knowledge about health laws and policies facilitates the physiotherapist's involvement in Healthcare Management.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

11. **Skills related to Leadership are not relevant to facilitate physiotherapist's involvement in Management functions.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

Questionnaire – Leadership

Please read each sentence carefully before replying. Indicate your level of agreement with the statements presented, according to a scale of 1 (Strongly Disagree) to 5 (Strongly Agree). Also consider the following definition:

▪ Leadership - is the process by which an individual influences a group of individuals to achieve a common goal; create with success, positive changes for the common good.

12. Leadership is a key-skill for the physiotherapist. Please select only one of the following options:

- 1 – Totally Disagree
- 2 – Disagree
- 3 – Neither Agree, Nor Disagree
- 4 – Agree
- 5 – Totally Agree

13. Once the physiotherapist has a greater focus on clinical practice, his recognition as a leader is called into question. Please select only one of the following options:

- 1 – Totally Disagree
- 2 – Disagree
- 3 – Neither Agree, Nor Disagree
- 4 – Agree
- 5 – Totally Agree

14. Current organizational structures limit opportunities for physical therapist take on Leadership roles. Please select only one of the following options:

- 1 – Totally Disagree
- 2 – Disagree
- 3 – Neither Agree, Nor Disagree
- 4 – Agree
- 5 – Totally Agree

15. **Networking facilitates the physiotherapist's appointment to Leadership positions.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

16. **The recognition of the physiotherapist as a leader is affected by the fact that Physiotherapy is mainly performed by women.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

17. **At the degree level, the physiotherapist does not develop the basic skills of Leadership.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

18. **Priority is given to other health-related professionals in Leadership roles' appointment (example: Medicine, Nursing).** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

19. **As a physiotherapist, I am interested in taking the leadership in my work team.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

20. **The development of Leadership skills facilitates physiotherapist's involvement in this same role (to lead).** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

21. **The work performed by the physiotherapist reserves little time for the involvement in leadership positions.** Please select only one of the following options:
    - 1 – Totally Disagree
    - 2 – Disagree
    - 3 – Neither Agree, Nor Disagree
    - 4 – Agree
    - 5 – Totally Agree

Questionnaire – Competencies

22. **Please order the Competencies of the Physiotherapist Profile in the order that you consider most important**, with number 1 corresponding to the most important competence and number 8 corresponding to the least important competence.

- Leadership: leading and committing to projects, aggregating and mobilizing actions leading to change, taking responsibility, risks and consequences of your actions and decisions.
- Clinical reasoning: integrating specific knowledge, skills and attitudes to provide high quality care capable of improving the health and well-being of its users.
- Practice based on the best available evidence: acting through a continuous process of critical analysis of available information (scientific and contextual), using research, discussion and application of validated knowledge.
- Management: managing time, resources and priorities, promoting organizational excellence and engaging in activities to improve the quality of services provided.
- Research: develop and promote clinical research, in research teams with a broad spectrum.
- Communication: use oral and written strategies that are effective in exchanging information and contribute to optimizing therapeutic and professional relationships.
- Teamwork: work effectively to provide inter and intra professional services and care.
- Ethics: maintaining high standards of ethical behavior, complying with the legal and regulatory requirements of the profession.

Sociodemographic Data

23. Sex:

- Female
- Male

24. Age: ___

25. Location: _____

26. Years of professional experience: _____

27. Academic degree (finished):

- Bachelor's
- Degree
- Master's
- Ph.D.
- Post-Graduation
- Other: _____

28. Labor context:

- Public Hospital
- Private Hospital
- Residential Structures for the Elderly - ERPI (Homes and Day Centers)
- *Santa Casa da Misericórdia* and Associations
- Private Physiotherapy Unit
- Physical and Rehabilitation Medicine Clinic (PRM)
- Public Education
- Private Education
- Sports
- Other: _____

29. Current role: _____

30. Number of physiotherapists on the team you belong to: _____

31. In the degree, did you have any Health Management subject?

- Yes.
- No.

32. Do you have any complementary training in Management/Healthcare Management and/or Leadership?

- Yes.
- No.

33. If yes, which?

- Brief training.
- Postgraduation.
- Master's degree or higher.

Thank you for your contribution.

Any question should be addressed to the responsible investigator, by email to rcpaa2@iscte-iul.pt.

Appendix B – Questionnaire (Original and Portuguese Version)

Facilitadores e barreiras ao envolvimento dos fisioterapeutas em cargos de Gestão da Saúde e Liderança, em Portugal

Este questionário destina-se a um estudo que está a ser desenvolvido pela aluna Rafaela da Costa Pereira, no âmbito da dissertação da tese de mestrado do MSc in Business Administration, na ISCTE Business School (IBS). Esta investigação tem como finalidade conhecer facilitadores e barreiras ao envolvimento dos fisioterapeutas em cargos de Gestão da Saúde e Liderança, em Portugal.

Como população-alvo, serão considerados, exclusivamente, fisioterapeutas que exerçam a sua atividade profissional em Portugal.

O questionário é constituído por 22 perguntas e o seu preenchimento levará cerca de 15 a 20 minutos. Não há respostas "certas" ou "erradas", por isso, responda o mais honestamente possível. A sua participação é indispensável à condução deste estudo, contribuindo para o aumento do conhecimento nesta área.

Qualquer questão deve ser dirigida à investigadora responsável, através do e-mail rcpaa2@iscte-iul.pt.

Bem-vindo!

Desde já, obrigada pela sua participação.

Se já respondeu a este questionário, por favor, não volte a fazê-lo.

Existem 33 perguntas neste inquérito.

Questionário – Gestão da Saúde

Por favor, leia atentamente cada afirmação antes de responder. Indique o seu grau de concordância com as afirmações apresentadas, de acordo com uma escala de 1 (Discordo Totalmente) a 5 (Concordo Totalmente). Considere ainda a seguinte definição:

▪ Gestão da Saúde - envolve a supervisão de uma organização ou unidade de saúde, proporcionando liderança, gestão e orientação, de modo a garantir a melhor qualidade dos serviços prestados.

1. **Ao nível da Licenciatura, o fisioterapeuta possui a formação básica no âmbito da Gestão da Saúde.** Por favor, selecione apenas uma das seguintes opções:
   - 1 – Discordo Totalmente
   - 2 – Discordo
   - 3 – Não concordo, Nem discordo
   - 4 – Concordo
   - 5 – Concordo Totalmente

2. **A Gestão da Saúde é uma competência relevante para as funções de um fisioterapeuta.** Por favor, selecione apenas uma das seguintes opções:
   - 1 – Discordo Totalmente
   - 2 – Discordo
   - 3 – Não concordo, Nem discordo
   - 4 – Concordo
   - 5 – Concordo Totalmente

3. **A atual estrutura do Serviço Nacional de Saúde (SNS) é promotora do envolvimento do fisioterapeuta na Gestão das suas unidades.** Por favor, selecione apenas uma das seguintes opções:
   - 1 – Discordo Totalmente
   - 2 – Discordo
   - 3 – Não concordo, Nem discordo
   - 4 – Concordo
   - 5 – Concordo Totalmente

4. **A falta de reconhecimento da Fisioterapia é uma barreira à atribuição de cargos de Gestão da Saúde ao fisioterapeuta.** Por favor, selecione apenas uma das seguintes opções:
   - 1 – Discordo Totalmente
   - 2 – Discordo
   - 3 – Não concordo, Nem discordo
   - 4 – Concordo
   - 5 – Concordo Totalmente

5. **Dado que a Fisioterapia é uma profissão maioritariamente exercida por mulheres, este fator é um obstáculo ao seu envolvimento na Gestão da Saúde.** Por favor, selecione apenas uma das seguintes opções:
   - 1 – Discordo Totalmente
   - 2 – Discordo
   - 3 – Não concordo, Nem discordo
   - 4 – Concordo
   - 5 – Concordo Totalmente

6. **A *networking* (rede de contactos) facilita a nomeação do fisioterapeuta para cargos de Gestão da Saúde.** Por favor, selecione apenas uma das seguintes opções:
   - 1 – Discordo Totalmente
   - 2 – Discordo
   - 3 – Não concordo, Nem discordo
   - 4 – Concordo
   - 5 – Concordo Totalmente

7. **Enquanto fisioterapeuta, estou interessado/a em assumir a Gestão de uma unidade de saúde.** Por favor, selecione apenas uma das seguintes opções:
   - 1 – Discordo Totalmente
   - 2 – Discordo
   - 3 – Não concordo, Nem discordo
   - 4 – Concordo
   - 5 – Concordo Totalmente

8. **A carga de trabalho do fisioterapeuta permite que haja tempo suficiente para que se dedique à Gestão da Saúde.** Por favor, selecione apenas uma das seguintes opções:
   - 1 – Discordo Totalmente
   - 2 – Discordo
   - 3 – Não concordo, Nem discordo
   - 4 – Concordo
   - 5 – Concordo Totalmente

9. **No âmbito da Gestão da Saúde, é notória a existência do domínio de outras profissões de saúde (exemplo: medicina, enfermagem).** Por favor, selecione apenas uma das seguintes opções:
   - 1 – Discordo Totalmente
   - 2 – Discordo
   - 3 – Não concordo, Nem discordo
   - 4 – Concordo
   - 5 – Concordo Totalmente

10. **O conhecimento acerca da legislação e políticas de Saúde facilita o envolvimento do fisioterapeuta na Gestão da Saúde.** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

11. **Competências relacionadas com a Liderança não são relevantes para facilitar o envolvimento do fisioterapeuta em funções de Gestão.** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

Questionário – Liderança

Por favor, leia atentamente cada afirmação antes de responder. Indique o seu grau de concordância com as afirmações apresentadas, de acordo com uma escala de 1 (Discordo Totalmente) a 5 (Concordo Totalmente). Considere ainda a seguinte definição:

▪ Liderança - processo pelo qual um indivíduo influencia um grupo de indivíduos a atingir um objetivo comum; criar, com sucesso, mudanças positivas para o bem comum.

12. **A Liderança é uma competência-chave para o fisioterapeuta.** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

13. **Dado que o fisioterapeuta tem maior foco na prática clínica, o seu reconhecimento enquanto líder é posto em causa.** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

14. **As atuais estruturas organizacionais limitam as oportunidades para o fisioterapeuta assumir cargos de Liderança.** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

15. **A existência de networking (rede de contactos) é facilitadora da nomeação do fisioterapeuta para cargos de Liderança.** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

16. **O reconhecimento do fisioterapeuta enquanto líder é afetado pelo facto de a Fisioterapia ser maioritariamente exercida por mulheres.** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

17. **Ao nível da licenciatura, o fisioterapeuta não desenvolve as competências-base de Liderança.** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente
    -

18. **É dada primazia a outros profissionais de saúde na nomeação para cargos de Liderança (exemplo: medicina, enfermagem).** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

19. **Enquanto fisioterapeuta, interesso-me por assumir a Liderança na minha equipa de trabalho.** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

20. **O desenvolvimento de competências de Liderança facilita o envolvimento do fisioterapeuta nessa mesma função (liderar).** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

21. **O trabalho desempenhado pelo fisioterapeuta reserva-lhe pouco tempo para o envolvimento em cargos de Liderança.** Por favor, selecione apenas uma das seguintes opções:
    - 1 – Discordo Totalmente
    - 2 – Discordo
    - 3 – Não concordo, Nem discordo
    - 4 – Concordo
    - 5 – Concordo Totalmente

Questionário – Competências

22. **Por favor, ordene as competências do perfil do Fisioterapeuta pela ordem que considera mais importante**, sendo que o número 1 corresponde à competência mais importante e o número 8 corresponde à competência menos importante.

- Liderança: liderar e comprometer-se com projetos, agregar e mobilizar ações conducentes à mudança, assumir responsabilidade, riscos e consequências das suas ações e decisões.

- Raciocínio clínico: integrar conhecimento, aptidões e atitudes específicas para fornecer cuidados de elevada qualidade capazes de melhorar a saúde e o bem-estar dos seus utentes.

- Prática baseada na melhor evidência disponível: atuar mediante um processo contínuo de análise crítica da informação disponível (científica e contextual), recorrendo à pesquisa, discussão e aplicação do conhecimento validado.

- Gestão: gerir o tempo, os recursos e as prioridades, promover a excelência organizacional e envolver-se em atividades de melhoria da qualidade dos serviços prestados.

- Investigação: desenvolver e promover investigação clínica, em equipas de investigação de espetro alargado.

- Comunicação: utilizar estratégias orais e escritas que sejam efetivas na troca de informação e contribuam para otimizar as relações terapêuticas e profissionais.

- Trabalho em equipa: trabalhar de forma efetiva para fornecer serviços e cuidados inter e intraprofissionais.

- Ética: manter padrões elevados de comportamento ético, cumprindo os requisitos legais e regulamentares da profissão.

Dados Sociodemográficos

23. Sexo:

- Feminino
- Masculino

24. Idade: ____

25. Localização: _____

26. Anos de experiência profissional: ____

27. Grau académico (completo):

- Bacharelato
- Licenciatura
- Mestrado
- Doutoramento
- Pós-Graduação
- Outro: _____

28. Contexto laboral:

- Hospitalar (público)
- Hospitalar (privado)
- Estruturas Residenciais Para Idosos - ERPI (Lares e Centros de Dia)
- Santa Casa da Misericórdia e Associações
- Unidade Privada de Fisioterapia
- Clínica de Medicina Física e Reabilitação (MFR)
- Ensino (público)
- Ensino (privado)
- Desporto
- Outro: _____

29. Função que desempenha: _____

30. Número de fisioterapeutas da equipa onde se insere: ____

31. Na licenciatura, teve alguma disciplina de Gestão da Saúde?

- Sim
- Não

32. Possui alguma formação complementar em Gestão/Gestão da Saúde e/ou Liderança?

- Sim
- Não

33. Se sim, qual?

- Formações breves.
- Pós-graduação
- Mestrado ou superior
- Outro: _____

Obrigada pelo seu contributo.

Qualquer questão deve ser dirigida à investigadora responsável, através do e-mail rcpaa2@iscte-iul.pt.

Appendix C – Interview Guide (English Version)

INTERVIEW GUIDE

1) **In your opinion, what are the barriers to physiotherapists' involvement and appointment to Healthcare Management positions?**

Literature:

□ gender inequality
□ lack of interest
□ physicians' dominance
□ lack of recognition of the profession
□ lack of training
□ existent laws and policies

Other:_____

_____

_____

2) **What do you think are the barriers to physiotherapists' recognition and involvement of in Leadership positions?**

Literature:

□ gender inequality
□ lack of interest
□ physicians' dominance
□ excessive workload
□ lack of training/preparation
□ traditional structures
□ stereotypes

Other:_____

_____

_____

_

3) **What are the facilitators to physiotherapists' involvement and appointment to Healthcare Management positions?**

Literature:

□ networking
□ healthcare legislation knowledge
□ work commitment
□ time and resources availability
□ gender equality

Other:_____

_____

_____

4) In your opinion, what are the facilitators to physiotherapists' recognition and involvement of in Leadership positions?

Literature:

□ gender equality □ critical self-reflection

□ innovation □ time and resources availability

□ proactivity □ Leadership skills development

Other:_____

_____

_____

Did you have any subject regarding Healthcare Management in your Degree/Bachelor?

□ Yes. □ No.

Do you have any complementary training in Management/Healthcare Management and/or Leadership?

□ Yes. □ No.

If yes, which?

□ Brief training □ Post-graduation □ Master's or higher

Did this training influence your general or management activity?

_____

_____

***If not,* would it have been useful and / or necessary? Why?**

_____

_____

Comments:

Sociodemographic Data

34. Sex:

- Female
- Male

35. Age: ___

36. Location: _____

37. Years of professional experience: _____

38. Academic degree (finished):

- Bachelor's
- Degree
- Master's
- Ph.D.
- Post-Graduation
- Other: _____

39. Labor context:

- Public Hospital
- Private Hospital
- Residential Structures for the Elderly - ERPI (Homes and Day Centers)
- *Santa Casa da Misericórdia* and Associations
- Private Physiotherapy Unit

- Physical and Rehabilitation Medicine Clinic (PRM)
- Public Education
- Private Education
- Sports
- Other: _____

40. Current role: _____

41. Number of physiotherapists on the team you belong to: _____

42. In the degree, did you have any Health Management subject?

- Yes.
- No.

43. Do you have any complementary training in Management/Healthcare Management and/or Leadership?

- Yes.
- No.

44. If yes, which?

- Brief training.
- Postgraduation.
- Master's degree or higher.

Thank you for your contribution.

Appendix D – Interview Guide (Original and Portuguese Version)

GUIÃO DE ENTREVISTA

1) Na sua opinião, quais são as barreiras ao envolvimento e nomeação dos fisioterapeutas para cargos de Gestão da Saúde?

Literatura:

□ desigualdade de género
□ domínio médico
□ falta de formação
□ falta de interesse
□ falta de reconhecimento/depreciação da profissão
□ leis e políticas existentes

Outros:_____

_____

_____

2) Quais pensa serem as barreiras ao reconhecimento e envolvimento dos fisioterapeutas em cargos de Liderança?

Literatura:

□ desigualdade de género
□ domínio médico
□ falta de formação/preparação
□ estereótipos
□ falta de interesse
□ excesso de carga de trabalho
□ estruturas tradicionais

Outros:_____

_____

_____

3) Quais os facilitadores ao envolvimento e nomeação dos fisioterapeutas para cargos de Gestão da Saúde?

Literatura:

□ networking
□ comprometimento com o trabalho
□ igualdade de género
□ conhecimento de legislação de Saúde
□ disponibilidade de tempo e recursos

Outros:_____

_____

_____

4) Do seu ponto de vista, quais são os facilitadores ao reconhecimento e envolvimento dos fisioterapeutas em cargos de Liderança?

Literatura:

□ igualdade de género □ autorreflexão crítica

□ inovação □ disponibilidade de tempo e recursos

□ proatividade □ desenvolvimento de capacidades de Liderança

Outros:_____

_____

_____

Teve alguma cadeira de Gestão da Saúde na sua Licenciatura/Bacharelato?

□ Sim □ Não

Possui alguma formação complementar em Gestão/Gestão da Saúde e/ou Liderança?

□ Sim. □ Não

Se sim, qual?

□ Formações breves □ Pós-Graduação □ Mestrado ou superior

Essa formação influenciou a sua atividade geral ou de Gestão?

_____

_____

Se não, teria sido útil e/ou necessária? Porquê?

_____

_____

Comentários:

DADOS SOCIODEMOGRÁFICOS

Sexo: □ Masculino □ Feminino Idade: _____

Localização: _____ Anos de experiência profissional: _____

Grau Académico (completo):

□ Bacharelato □ Mestrado

□ Licenciatura □ Doutoramento

□ Pós-Graduação □ Outro: _____

Função (ex.: Fisioterapeuta, Coordenador, …): _____

Contexto laboral (selecione vários, se aplicável):

□ Hospitalar (público) □ Santa Casa da Misericórdia e Associações

□ Hospitalar (privado) □ Unidade Privada de Fisioterapia

□ ERPI (Lares e Centros de Dia) □ Clínica de MFR

□ Ensino (público) □ Desporto

□ Ensino (privado) □ Outro: _____

Número de Fisioterapeutas da equipa onde se insere (se atua sozinho, escrever 0): _____

Teve alguma cadeira de Gestão da Saúde na sua Licenciatura?

□ Sim □ Não

Possui alguma formação complementar em Gestão/Gestão da Saúde e/ou Liderança?

□ Sim. □ Não

Se sim, qual?

□ Formações breves □ Pós-Graduação □ Mestrado ou superior

Obrigada pelo seu contributo.