FROM POLICY PRESCRIPTION TO HEALTH PROFESSIONAL COMPLIANCE

Implementation of a hospital quality and patient safety accreditation system

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From policy prescription to health professional compliance

Implementation of a hospital quality and patient safety accreditation system

Van beleidsvoorschrift tot beleidsuitvoering door zorgprofessionals

Implementatie van een ziekenhuis kwaliteits- en patiëntveiligheidsaccreditatiesysteem

(met een samenvatting in het Nederlands)

Proefschrift

ter verkrijging van de graad van doctor aan de Universiteit Utrecht op gezag van de rector magnificus, prof. dr. H.R.B.M. Kummeling, ingevolge het besluit van het college voor promoties in het openbaar te verdedigen op vrijdag 8 februari 2019 des ochtends te 10.30 uur

door

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VOORWOORD

Voordat ik aan mijn promotieonderzoek begon waren 'de wetenschap' en 'de praktijk' voor mij twee aparte werelden. Wetenschappelijk onderzoek werd onafhankelijk van de praktijk uitgevoerd en als het onderzoek 'af' was kon de praktijk gebruik maken van de opgeleverde inzichten. Echter, in de beginfase van mijn promotietraject bij het UMC Utrecht bleek al snel dat de praktijkkennis uit het UMC Utrecht cruciaal was voor mijn wetenschappelijke onderzoek. Het belang van praktijkkennis vond ik terug in 'betrokken wetenschap'; een benadering waarin de coproductie van kennis door wetenschap en praktijk centraal staat. Het proefschrift dat voor u ligt is het eindproduct van een bijzondere reis waarin ik mij heb ontwikkeld tot een 'betrokken wetenschapper'. Nu het promotieonderzoek is afgerond vormen de wetenschap en de praktijk voor mij niet langer twee verschillende werelden, maar komen ze samen.

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Chapter 1

Introduction

Patient safety has become a major concern in health care around the world. Studies have estimated that between 3.7 to 17.7% of the patients that are admitted to hospitals are harmed by the way their health care is being delivered (De Vries, Ramrattan, Smoreburg, Gouma, & Boermeester, 2008; Langelaan et al., 2017; Leistikow, Kalkman, & Bruijn, 2011). This harm to patients can lead to temporary or permanent disabilities, longer admissions to the hospital, or even death (Langelaan et al., 2013). The problems with patient safety that were found made reliance on medical professionals seem naïve: if medical professionals were beneficent, how could they permit so much harm to patients? This has resulted in a shift from belief and trust in professionals to a belief in accountability, scrutiny and measurement (Berwick, 2016). As a result, hospitals are facing increased legal pressures to develop control systems to govern professional practice (Cardinaels & Soderstrom, 2013; De Harlez & Malagueño, 2016; Numerato, Salvatore, & Fattore, 2012).

One of the tools for control and external accountability that has been introduced is health care accreditation (Hinchcliff et al., 2012; Paccioni, Sicotte, & Champagne, 2008; Saltman, Busse, & Mossialos, 2002; Shaw, Kutryba, Braithwaite, & Bedlicki, 2010). Accreditation is an evaluation process used to assess, promote and guarantee quality of care by assessing compliance with predetermined quality and patient safety standards (Al-Awa, De Wever, Melot, & Devreux, 2011). Compliance with these standards offers the public protection by ensuring that the requirements of safe health care are met. Accreditation has developed in the United States from a recognition of specialty training into an assessment of health care functions, organizations, and networks (Shaw, 2001). Whereas the traditional model of accreditation is voluntary, it is being adapted towards a statutory tool for control and public accountability (Shaw, 2003) and many countries have passed legislation that mandates accreditation of hospitals (Pomey et al., 2010; Sack et al., 2010; Shaw et al., 2010). As a result, hospitals face increased legal pressures to implement accreditation systems.

From a management perspective, an accreditation system can be viewed as a bureaucratic management control system (Ahrens & Khalifa, 2015; Touati & Pomey, 2009). More specifically, due to its focus on compliance, accreditation is a bureaucratic control system that aims to control behavior. Such a control system consists of defining and specifying behavioral rules, monitoring whether individuals comply with the rules, and rewarding good actions or punishing actions that deviate from the rules (Merchant & Van der Stede, 2012; Ouchi & Price, 1978; Sitkin, Cardinal, & Bijlsma-Frankema, 2010b).

Although there is an increasing legal pressure to implement bureaucratic control systems, such systems are considered to be ineffective in hospitals (Abernethy, Chua, Grafton, & Mahama, 2007; Aidemark & Funck, 2009; De Harlez & Malagueño, 2016). A first issue with bureaucratic control is that in the complex and unpredictable hospital context, these controls are not effective. This is explained by the fact that monitoring and rewarding cannot be successfully used in cases of measurement and attribution

difficulties (Abernethy & Stoelwinder, 1995; Ouchi, 1979; Weibel, 2010). A second issue with bureaucratic control is that it has been demonstrated to have a negative effect on the intrinsic motivation of health professionals (Coombs, 1987; De Harlez & Malagueño, 2016). This is the result of formal control systems signaling distrust and individuals react to distrust by reducing their intrinsic motivation (Sitkin et al., 2010b). The negative effect on intrinsic motivation is problematic, since this motivation is even more important in the hospital context, where formal control systems have been found wanting.

So far, all arguments seem to suggest that formal control systems are ineffective and can have negative side effects in hospitals. However, since hospitals are *obliged to* implement formal control systems, insights are needed on how such formal control systems can be applied more effectively. Some authors (Mikkelsen, Jacobsen, & Andersen, 2017; Weibel, 2010) have suggested that control mechanisms can be enacted in different ways, and that these different ways have other motivational and behavioral outcomes. Weibel (2010), for example, suggests that there is a possibility of "high motivation control mechanisms". Based on self-determination theory (Ryan & Deci, 2000), she argues that the enactment of formal control mechanisms that support the individual's need for autonomy, competence and relatedness can strengthen intrinsic motivation. Similarly, a study by Mikkelsen and colleagues (2017) indicates that "soft" enforcement actions (based on dialogue and suggestions) are related to higher levels of intrinsic motivation, whereas "hard" enforcement actions (based on threats of punishment) are not. These findings suggest that hospitals can use different approaches to enforce control systems and that these approaches are related to distinct outcomes. Put differently, facing regulatory and competitive pressures does not automatically say anything about *the way in which* organizations and their managers enforce a bureaucratic system.

Following this notion, I have taken the observation that managers do not necessarily enforce rules in the same way, and that some enforcement actions are related to higher levels of intrinsic motivation than others (Mikkelsen et al., 2017; Mikkelsen, 2015), as a starting point for my study. The aim of this study is twofold: exploring the actions that are used to enforce policies of an accreditation system and examining whether and how these are related to motivation and compliance. The following research question is central to this dissertation:

Which actions are used to enforce the policies of an accreditation system and how are these actions related to health professionals' motivation and compliance?

In this introductory chapter, I will first describe the theoretical and research approach that has been central to this dissertation (section 1.1). After doing so, I will elaborate on its theoretical (section 1.2), practical (section 1.3) and methodological relevance (section 1.4). Finally, I will outline the structure of the dissertation in section 1.5.

1.1 APPROACH

Above, I have introduced the starting point of this study: even within formal management control systems, rules can be enforced differently. In this section, I will introduce the approach that I have used to investigate this starting point. I will do so by elaborating on both the theoretical approach and the research approach that have been central to this dissertation.

Theoretical approach: regulatory enforcement literature

To learn more about different approaches to the enforcement of rules, I have used insights from regulatory enforcement literature (see chapter 3 for more information). Regulatory enforcement literature focuses on explaining how compliance with regulations – acting in line with explicit requirements – can be achieved (Parker & Nielsen, 2011). Research on enforcement tends to focus primarily on the relationship between regulators and organizations and aims to determine which day-to-day enforcement actions ensure compliance (Gray & Silbey, 2011). The literature's focus on ensuring compliance with rules and on day-to-day enforcement actions makes insights from this body of literature particularly interesting for my research question. The focus on compliance is relevant, since the pressure to implement organizational control systems very often focuses on the pressure to be compliant with certain rules, protocols or regulations (Numerato et al., 2012). Similarly, the literature's consideration of day-to-day enforcement actions fits well with my starting point of investigating differences in the enactment of formal control systems.

In broad terms, two very different ideal typical enforcement styles are at the basis of most enforcement research (Gormley, 1998; Hutter, 1989; Mascini & Van Wijk, 2009; May & Wood, 2003; Mikkelsen et al., 2017; Reiss, 1984; Shover, Lynxwiler, Groce, & Clelland, 1984). On the one hand, there is a style based on the belief that individuals will comply with the law only when confronted with tough sanctions and on the other hand, there is a style based on the belief that gentle persuasion works in securing compliance with the law. I will follow these two broad categories and refer to them as "punishment" and "persuasion" (Ayres & Braithwaite, 1992; Braithwaite, 1985). Punishment is focused on punishing (or threatening to punish) individuals for their non-compliance and persuasion is focused on persuading individuals to improve their compliance. The assumption behind the punishment model is that individuals are unwilling to comply with rules and therefore must be compelled to do so by setting forth the consequences of non-compliance (May, 2004, 2005; May & Wood, 2003). The assumption behind persuasion, on the other hand, is that individuals are willing to comply with rules and regulations, but that some individuals need information or assistance in order to be able to be compliant (May, 2005; May & Winter, 1999).

In sum, I have used the insights on enforcement styles as a starting point to investigate the different enforcement actions that are used within a hospital context. Below, I will elaborate on the research approach that has been used to investigate these issues.

Research approach: engaged scholarship

To produce knowledge that is more insightful and that advances both practice and science (Van de Ven, 2007), I have used an engaged scholarship approach. Engaged scholarship is a collaborative form of research in which academics and practitioners leverage their different kinds of knowledge and competencies to co-produce knowledge (Barge & Shockley-Zalabak, 2008; Small & Uttal, 2005; Van de Ven, 2007; Van de Ven & Johnson, 2006). Engagement involves collaboration and co-production of knowledge between researchers and practitioners in each step of the research process: problem formulation, theory building, research design, and problem solving (see chapter 4 for a description of the engaged scholarship design and process).

The main premise behind engaged scholarship is that it provides a way to produce more insightful knowledge by exploiting differences in the kind of knowledge with which scholars and practitioners approach a problem. Practical knowledge that is essential to understanding the research question that is central to this dissertation includes, for example, understanding the hospital context and quality and patient safety issues. As Glouberman and Mintzberg (2001) argue, hospitals are "extraordinarily complicated" organizations due to the different "worlds" – including the administration, the provision of cure and care, and the relation with stakeholders from the community – they consist of. Moreover, the socialization processes that are part of medical (Atkinson, 1995; Sinclair, 1997) and nursing (Mayson & Hayward, 1997) education, also called the "the hidden curriculum"[1], make the hospital world difficult to understand for outsiders. In addition to the complexity of hospitals, this dissertation's focus on the enforcement of a quality and patient safety accreditation system increases the need for contextual knowledge even more. An accreditation system includes a great range of patient care-related policies and protocols, requiring specific knowledge about the content of different policies and how health care professionals should use them. Without this knowledge, it is for example not possible to accurately identify compliant and non-compliant behavior (Parker & Nielsen, 2009b).

The "practice" that is central to the research in this dissertation is University Medical Center Utrecht (UMC Utrecht). With approximately 12,000 employees and about 1,000 beds, UMC Utrecht is one of the largest public health care institutions in the Nether-

1 "The set of influences that function at the level of organizational structure and culture including, for example, implicit rules to survive the institution such as customs, rituals, and taken for granted aspects" (Lempp & Seale, 2004).

lands. Like all other Dutch hospitals, UMC Utrecht is confronted with large pressures to implement an accredited safety management system. This external pressure, combined with the hospital's ambition to provide the best possible quality of care, has resulted in the strategic choice for an accreditation by the Joint Commission International (JCI). This strategic choice was based on the JCI accreditation being patient-centered, providing an integral perspective on quality and patient safety, and being focused on continuously improving patient care. Chapter 2 contains more information about UMC Utrecht and the JCI accreditation. This dissertation is part of a broader collaboration between UMC Utrecht and different faculties of Utrecht University in the "professional performance" focus area. This focus area is aimed at describing, analyzing, and evaluating changes in and around professional services and professional work (Noordegraaf, Schaufeli, & Schneider, 2015). Due to this collaboration, there was a unique opportunity to start an engaged project with researchers from the public administration and organizational science department of Utrecht University (with theoretical knowledge on management control) and practitioners from UMC Utrecht (with practical knowledge on the hospital context and accreditation). Moreover, by involving practitioners from UMC Utrecht in each stage of the research process, engaged scholarship aims to produce knowledge that is relevant to both science *and* practice.

Now that I have introduced the theoretical and research approach of this dissertation, I will turn to discussing the theoretical, practical, and methodological relevance of this dissertation.

1.2 THEORETICAL RELEVANCE

This study aims to provide more knowledge on the effective implementation of organizational control in hospitals by using insights from regulatory enforcement literature. More specifically, this dissertation considers two different approaches – punishment and persuasion – to enact a bureaucratic control system. By doing so, this study contributes to both organizational control and regulatory enforcement literature.

Whereas most organizational control literature suggests that bureaucratic – or formal – control systems are not effective in hospitals, the empirical investigation of this topic has been limited (Abernethy et al., 2007). This has led to calls for a better understanding of organizational control in hospitals (De Harlez & Malagueño, 2016; King & Clarkson, 2015). Therefore, this study contributes to organizational control literature by empirically investigating formal control in a hospital context. Furthermore, empirical research into control has been limited (Sitkin, Cardinal, & Bijlsma-Frankema, 2010a), leaving control of complex organizations an elusive process that is not well understood (Flamholtz, Das, & Tsui, 1985; Kirsch, 1996; Snell, 1992). Moreover, by using insights from enforcement

literature on the possibility of different ways to enforce rules, this thesis aims to provide a more *refined* view on formal management control in a hospital context. As a result, this dissertation goes beyond the one-sided view of formal management control as a punitive approach by including enforcement options that can be facilitators for intrinsic motivation (Weibel, 2010).

This thesis also contributes to the field of regulatory enforcement by applying the insights on enforcement and compliance to the organizational setting. This is particularly relevant for regulatory enforcement scholars studying so-called management-based regulation. Management-based regulation involves organizations developing their own process and management system standards (Gunningham & Sinclair, 2009; Parker & Gilad, 2011). Whereas management-based regulation systems are increasingly used, enforcement studies on how organizations can ensure compliance with such systems have been limited (Gilad, 2010; Parker & Gilad, 2011). Since accreditation is closely related to management-based regulation (Shaw, 2000; Shaw, Groene, Mora, & Sunol, 2010), the insights from this dissertation can be useful for enforcement studies on management-based regulation.

Finally, although this dissertation focuses on the enforcement of an accreditation system in a hospital context, it also provides insights into the broader topic of implementation. Implementation has been a central topic in different research fields (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Winter, 2012), including fields that explicitly focus on the topic of "implementation", such as implementation science (Eccles & Mittman, 2006; Grol, Wensing, Eccles, & Davis, 2013) and public policy implementation (Hill & Hupe, 2002; Winter, 2012). Moreover, implementation is also a central theme in fields that do not explicitly refer to "implementation", such as organizational change management (Poole, Van de Ven, Dooley, & Holmes, 2000; Real & Poole, 2004) and innovation (Damanpour, 1991; Klein & Sorra, 1996).

1.3 PRACTICAL AND SOCIETAL RELEVANCE

UMC Utrecht, the hospital that has collaborated on this dissertation research, aims to effectively implement an accredited safety management system in order to continuously improve the quality of its patient care. Accreditation implies the implementation of a large bureaucratic control system at UMC Utrecht. Based on the engaged scholarship approach that has been used in this dissertation, a research question has been formulated that is relevant to UMC Utrecht's practitioners. As a result, this dissertation aims to contribute to UMC Utrecht's understanding of how such a large bureaucratic control system can be implemented effectively. More specifically, this thesis provides insights

into concrete enforcement actions and their contribution to ensuring health professionals' compliance.

Moreover, the insights from this thesis are also relevant for other hospitals. Since other hospitals also face strong external and internal pressures to implement accreditation systems, it is likely that these hospitals face similar issues regarding the enforcement of an accreditation system in their organization. Although other hospitals might differ with regard to the specific accreditation system they are implementing and with regard to their structure and culture, the insights from this dissertation can provide clues or suggestions on how an accreditation system can be effectively enacted.

Looking more broadly, the findings can provide insights beyond the effective implementation of accreditation systems in a hospital context. Whereas other systems and organizational settings might have their own "specifics", the insights from this study could be a starting point that can be translated and adapted to understand issues in other settings. First, the findings from this thesis are also of relevance for other bureaucratic systems aimed at standardization of behavior. Whereas this thesis focuses on the effective implementation of an accreditation system in a hospital setting, the use of enforcement theory provides insights into the mechanisms that explain why enforcement actions are related to compliance. These insights are likely to be applicable to other bureaucratic control systems, such as (total) quality management systems. Second, the findings from this dissertation are relevant for other organizational settings that involve professionals, such as the veterinarian, judicial, educational and accountancy fields (Noordegraaf et al., 2015).

1.4 METHODOLOGICAL RELEVANCE

The use of an engaged scholarship approach is what distinguishes this dissertation from many "traditional" studies. Whereas "traditional" or "unengaged" research mainly uses practice to collect data or obtain funding for their academic research question, I have used insights from UMC Utrecht for an improved understanding of the research problem. Using an engaged scholarship approach allowed me to *co-produce* knowledge that is more insightful and penetrating. Engagement with practice advances scientific knowledge, because involving others – and obtaining their different insights and interpretations – allows for a deeper understanding of the research problem and question (Van de Ven, 2007).

My collaboration with UMC Utrecht allowed me to incorporate practical knowledge throughout all phases of the research process, from formulating the research question to problem solving. Examples of the advantages of incorporating "practical knowledge" include identifying a relevant research question that is grounded in practice. Moreover,

engagement provided me with essential knowledge about how hospitals work and the content of the quality and patient safety policies. Without this specific knowledge, it would have been more difficult to select relevant cases to study and to go into depth during the data collection. Moreover, during the data analysis, specific knowledge about the content and implications of quality and patient safety policies – in specific settings within the hospital context – was needed for a deeper and more insightful interpretation of the data.

By explaining the engaged scholarship approach and showing in detail the "design parameters" and "process" of engagement used in this dissertation (see chapter 4), I provide other researchers with a guideline on how to design and conduct an engaged study. By providing a thorough discussion of the engaged scholarship approach used in this dissertation, I make it possible for other scholars to see the choices and actions available for their own research. Moreover, by describing the engaged scholarship design and process, I also allow practitioners to learn about their potential role and contribution in an engaged project.

1.5 OUTLINE

This dissertation is set up as a book with eight chapters. Three chapters (chapters 5 to 7) present the results of the three empirical studies that I have conducted for this dissertation. In these chapters, I have also included a background section with theoretical and methodological information in order to make these readable more or less independently of the other chapters. Two of the empirical chapters (5 and 6) also exist in similar version as research papers: one paper has been published in BMC Health Services Research (Weske, Boselie, Van Rensen, & Schneider, 2018b) and the other paper has been published in Health Services Management Research (Weske, Boselie, Van Rensen, & Schneider, 2018a).

Both papers were co-authored by my supervisors, but as a first author I took the major responsibility in designing, conducting, and analyzing the studies. Moreover, I was responsible for writing the articles. I have chosen to include chapters in this dissertation, rather than the entire papers, to better show the richness of the different cases and to avoid too much overlap between the different chapters of this dissertation. Below, I will introduce the chapters that are included in this dissertation.

Inspired by the engaged scholarship approach, this dissertation will start with an introduction of UMC Utrecht (chapter 2). The aim of chapter 2 is to introduce the research setting and case of quality and patient safety accreditation. To introduce the setting, I will provide background information on the Dutch hospital sector and UMC Utrecht. In doing so, I will also discuss the government policies that have been a driver for the

implementation of an accreditation system. Furthermore, I will discuss the content and the implementation strategy of UMC Utrecht's accreditation system.

In chapter 3, I will elaborate on the theoretical framework that has been used to investigate the research question. In this chapter, I will first present an overview of organizational control literature and issues associated with the use of formal organizational control (in a hospital context). After doing so, I will introduce regulatory enforcement literature as a "way forward" to study questions of organizational control. This is followed by a translation of insights from enforcement literature to the organizational setting. I will conclude with the conceptual framework that has been central to the empirical data collection in this dissertation.

Chapter 4 describes the research design and methods. In this chapter, I will provide more information on the engaged scholarship approach that has been central to this dissertation. In addition, I will also introduce the core elements of the research design: multiple methods, multiple cases and multiple actors. After presenting the design, I will present the three empirical studies that have been conducted for this dissertation. Each of the three studies uses a different case – or "vehicle" – as a focus for the data collection in this dissertation. In the three case studies, I have investigated the same conceptual model by using different research methods (qualitative and quantitative) and focusing on different actors (physicians, nurses, and their front line leaders).

Chapters 5, 6 and 7 present the empirical findings of each of the three studies that I have conducted. In chapter 5, I will use qualitative data to explore the enforcement actions used by nurse front line leaders. In chapter 6, I will use survey data collected from physicians to investigate the direct relationship between enforcement actions and compliance, and the mediating role of different types of motivation. Finally, in chapter 7, I will use qualitative data to investigate the enforcement actions used by physician front line leaders, and the relation between these actions and physicians' motivation and compliance.

Finally, chapter 8 starts by summarizing the main research findings of the three cases investigated in the empirical chapters. This is followed by an in-depth discussion of the empirical findings of this thesis. In addition, I will critically reflect on the theoretical and methodological approach used in this dissertation, and I will discuss the limitations of this study. Based on the discussion of the main findings and the critical reflection on the approach and limitations of this study, I will formulate recommendations for future research and for practice.

Chapter 2

Setting the stage: quality and patient safety accreditation at UMC Utrecht

This chapter has two goals. First, providing the reader with background information about Dutch hospital care in general and UMC Utrecht in specific. Second, introducing the reader to the case of quality and patient safety accreditation in Dutch hospital care in general, and UMC Utrecht in specific.

This chapter is structured as follows. First, I will "set the stage" by providing the reader with some general background information on Dutch hospital care (section 1.1) and about UMC Utrecht (section 1.2). In section 1.3, I will discuss the Dutch patient safety program that has introduced the obligation to implement an accredited safety management system. Finally, I will introduce the research context that is central to this dissertation: UMC Utrecht's accreditation system (section 1.4).

2.1 DUTCH CURATIVE CARE

In this section, I will introduce the Dutch curative care[2] – or hospital – system. Curative care means care that focuses on curing the patient, or put differently, focuses on restoring patients' health (Kroneman et al., 2016). I will provide information about the system of "managed competition", the different types of health care that are provided in the Netherlands, and university medical centers.

Managed competition

In 2006, the Health Care Insurance Act (Zvw) and the Health Care (Market Regulation) Act (WMG) introduced managed competition as the central driving mechanism in Dutch health care (Kroneman et al., 2016; Schäfer et al., 2010). For the broader case of quality and patient safety that is central to this dissertation, the "managed competition" system implies that both insurers and patients can define quality and can have demands regarding the quality of care provided by health care providers. As a result, quality becomes part of health insurers' purchasing criteria and patients can use several websites[3] to compare the quality of health care providers.

In this system, health care providers operate in two markets. First, there is a market for health services provision, where health care providers offer care that patients can choose to use. Second, in the health care purchasing market, health insurers negotiate with health care providers on the price, volume and quality of care. In addition to these

2 In the Netherlands, the "cure" system is distinguished from the "care" system. The latter focuses on minimizing the disadvantages of diseases and disorders by providing nursing and care. Care institutions are very diverse and include care for the disabled, home care, and care for the elderly.

3 Such as the government website www.kiesbeter.nl, which offers information on the availability of services, aspects of the quality of services – including information collected by the Health Care Inspectorate – and specific quality measures (Kroneman et al., 2016).

two markets where health care providers operate, there is also a market for health insurance, where health insurers offer a basic insurance package and additional insurance packages to citizens.

A system of managed competition also implies a different role for the government. Whereas the government used to directly control the volumes and prices of care, their new role consists of regulating and overseeing the proper functioning of the three markets. The Dutch Health Care Authority (Nederlandse Zorgautoriteit, NZa) is in charge of monitoring the functioning of the health care markets (Kroneman et al., 2016; Ministry of Health, Welfare and Sport (VWS), 2006).

In Figure 1, the markets and the main players of the managed competition system are summarized.

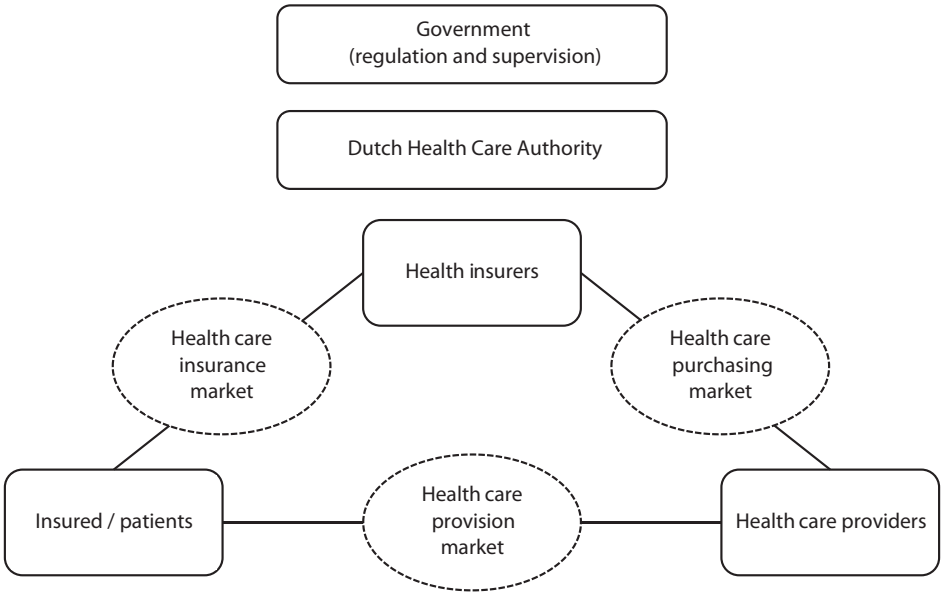

Figure 1: Health care markets and actors
Source: Kroneman et al., 2016, p. 24

Below, I will introduce the different health care providers that operate in the system.

Types of health care providers

The Dutch curative care sector consists of primary, secondary and tertiary care (Bos, Koevoets, & Oosterwaal, 2011). Primary care consists of all care that is directly assessable and includes the general practitioner (GP) and other primary care practitioners such as midwives or dentists. Within primary care, the GP has a so-called gatekeeping role with regard to secondary care. This means that hospital care and specialist care require referral from a GP. Secondary care encompasses those forms of care that are only ac-

cessible upon referral from a primary care provider and is mainly provided by hospitals in both inpatient and outpatient departments. Tertiary care includes highly specialized care and a "last resort" function for referrals from other hospitals. Examples of tertiary care include heart surgery, neurosurgery and neonatal care.

Regular hospitals[4] in the Netherlands are usually differentiated into four types of institutions: general hospitals, specialized hospitals, top clinical centers, and university medical centers. General hospitals provide a broad range of basic patient care. Specialized hospitals are general hospitals that concentrate on specific forms of care or on specific illnesses. Examples include the Rotterdam Eye Hospital and revalidation clinics. Top clinical centers provide both general patient care and top clinical care. Top clinical care is highly specialized care that is included in the Special Medical Procedures Act (WBMV). This law includes an overview of all top clinical medical procedures that need authorization, including organ transplantation and special interventions to the heart (Postma, Van Dongen, Hakkaart, & Bal, 2016). University medical centers focus on the provision of top referent care[5]. Top referent care is highly specialized care for patients that cannot be referred to other care providers (last resort). Top referent care can be distinguished from top clinical care due to the uncertainty about the diagnosis and the correct treatment of a condition, the importance of scientific research and the absence of a standard approach (Postma et al., 2016). University medical centers may also provide top clinical care and in some cases basic care. In 2018, there were 61 general hospitals, 22 specialized hospitals, eight university medical centers (CBS, 2018), and 26 top clinical centers (STZ, 2018). Within this system with its different health care providers, the research in this dissertation has been conducted in cooperation with a university medical center. Therefore, I will elaborate on this specific type of hospital below.

University medical centers

In a university medical center, the faculty of medicine of a university and its academic hospital are merged. Faculties of medicine have the responsibility for the initial training of physicians, for scientific research, and for tertiary care and clinical research and innovation. UMCs are public organizations that have close ties to the university. The executive boards of UMCs include a dean of medicine (Netherlands Federation of University Medical Centers (NFU), 2008).

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4 Hospitals in the Netherlands are usually differentiated into "regular hospitals", independent treatment centers and private clinics (Bos et al., 2011). Since independent treatment centers and private clinics provide specific types of care that are not relevant for my dissertation, I do not consider them further in this chapter.

5 A few top clinical hospitals also provide some top referent procedures. Most top referent care is, however, provided by UMCs.

UMCs have a distinct public mission consisting of three core responsibilities: 1) teaching and training, 2) basic and clinical research and 3) (tertiary) patient care. UMCs offer both the initial six-year training for physicians and all specialist training, including family practice and public health. Moreover, UMCs often have clinical, translational and basic science research groups. Finally, with regard to patient care, UMCs have an important responsibility to provide top referent care. Patient groups with rare diseases, complications that are difficult to manage or a need of highly complex interventions are concentrated in some or all UMCs that have sufficient expertise. The characteristics of the patient group for UMCs have been specified in the so-called *ROBIJN* program (Postma et al., 2016; VWS & NFU, 2017). Patients are referred to UMCs if they "score" at least on one of the labels. The labels include: 1) high treatment intensity; 2) treatment being closely connected with scientific research; 3) unique provision of care due to high complexity or infrastructure needed; 4) multi-specialist care requiring at least three medical specialists; 5) complex surgeries performed on less than 1 in 100,000 patients; 6) rare diagnosis; 7) off-label expensive medication; 8) tertiary referral; 9) multimorbidity at a young age (VWS & NFU, 2017). In addition, UMCs also provide regular hospital care, mainly to provide opportunities for the training of physicians (NFU, 2008). The added function of UMCs is that they integrate the three core functions of patient care, research and education, leading to possibilities of mutual benefits (for example, doctors being involved in teaching and research results being used as innovations in patient care).

Below, I will introduce the specific UMC that has been central to this dissertation: UMC Utrecht.

2.2 UNIVERSITY MEDICAL CENTER UTRECHT

UMC Utrecht is an international university medical center that was founded in 2001 from a merger of Academic Hospital Utrecht (founded in 1875), Wilhelmina Children's Hospital (founded in 1888) and the Faculty of Medicine at Utrecht University (founded in 1636). Like all UMCs, UMC Utrecht has three core tasks: patient care, research and education. UMC Utrecht has the following mission: "UMC Utrecht is a leading international university medical center generating, testing, sharing, and applying knowledge on health, illness, and health care for the benefit of patients and society". With approximately 12,000 employees and 1,000 beds, UMC Utrecht is one of the largest public health care institutions in the Netherlands and the largest employer in the region.

A three-person *executive board* leads UMC Utrecht. The executive board is responsible for daily management, determines the general policy of UMC Utrecht, and is responsible for the quality of care provided by hospital. A *supervisory board* reviews the policies and decisions of the executive board.

The organizational structure of UMC Utrecht (until April 2018) can be characterized as a professional concern model, consisting of twelve medical divisions and seven supportive directorates. The *divisions* function as interdependent decentralized parts that are managed by the executive board through management contracts. The division boards consist of a medical manager (a medical professional), a care manager (a nurse), a research and education manager (a medical professional) and a business manager. The division boards are responsible for the implementation of quality and patient safety policies in their division.

Divisions consist of several *medical departments* that are clustered based on their medical specialism. These departments are headed by a medical department head (a medical professional). The medical department head is responsible (by law) for the quality of patient care provided at his or her department. Different types of physicians[6] work in these medical departments: medical specialists (physicians who have undertaken specialized medical studies), residents (physicians currently undertaking specialized medical studies), and interns (physicians not undertaking specialized medical studies). Both the medical department heads and physicians are professionals. As a result, they have a high degree of autonomy to apply their knowledge to complex cases (Evetts, 2003; Freidson, 2001). The centrality of autonomy makes it difficult for one physician to influence the practice of another, including for the medical department head to influence the practice of physicians working at his or her department (Thorne, 1997).

In addition to the medical departments, divisions consist of *inpatient and outpatient departments*. A nurse team leader (sometimes referred to as unit manager) generally leads these departments and is responsible for the daily care provided at the inpatient or outpatient department. The nurse team leaders are responsible for the implementation of quality and patient safety policies in their departments. Nurses provide care to patients in these inpatient and outpatient departments.

The organizational levels and actors that are relevant for the enforcement of quality and patient safety policies are summarized in Figure 2. As can be seen in this figure, there are two rather separate hierarchies: one of physicians and their leaders, and one of nurses and their leaders. As the double-headed arrows indicate, these hierarchies are connected by dual management functions; medical and nursing managers having an integral responsibility for the management of the divisions and departments. In this figure, the research and education manager (a medical professional) and the business manager are not included, since the implementation of quality and patient safety guidelines related to patient care is not their responsibility.

6 "Physician" refers to individuals that have completed the initial six-year medical training.

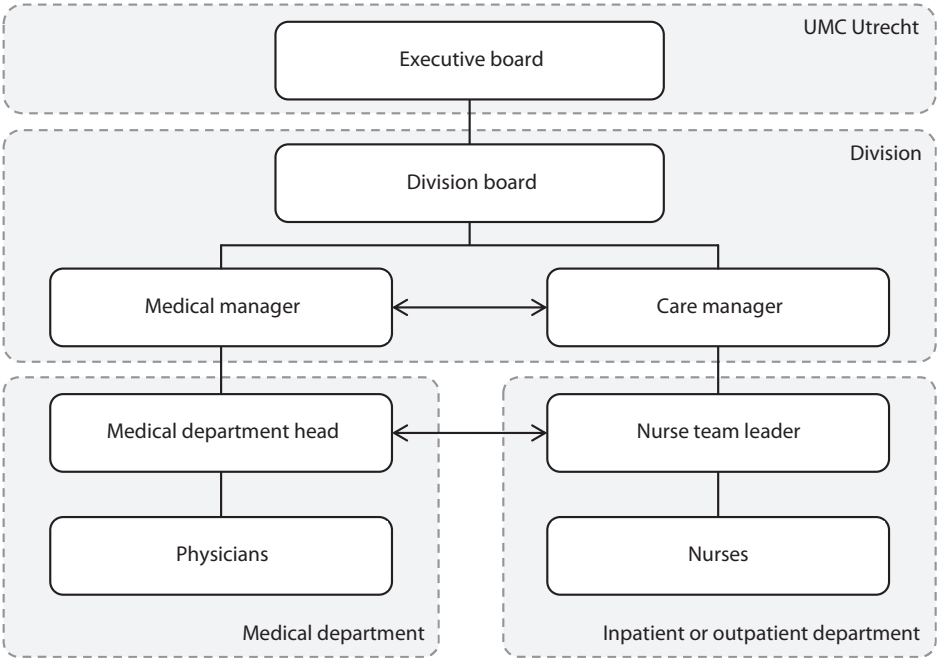

Figure 2: Relevant levels and actors of UMC Utrecht
Note: The dotted lines indicate levels and the solid lines indicate actors. The double-headed arrows indicate the horizontal connections between the medical and nursing managers (in the case of dual management).

In January 2015, UMC Utrecht's strategy 2015-2020 "Connecting U" was launched. Connecting U focuses on connecting with patients, other care organizations, with each other and with society. To reach the strategy's goals of connecting with patients and making an impact regarding the hospitals' strategic themes, the hospital has introduced several changes. These changes are centered on three pillars. In Text box 1, I have provided an overview of the pillars of the Connecting U strategy.

Since the data for the third study of this dissertation was collected in spring 2017 (see chapter 4), the programs of the first and second pillar could have played a role in the data that I have collected.

Now the stage has been set, I will turn to the discussion of the developments that have put increased pressures on Dutch hospitals to implement an accredited safety management system.

Text box 1: Pillars of the Connecting U strategy

The first pillar is aimed at continuous improving care, research and education. Within this pillar, the hospital has introduced the program "*Samen voor de Patient*" (Together for the Patient) as a way of improving collaboration and continuously implementing improvements. The implementation of the program started in 2016 and the goal is that everyone at UMC Utrecht works according to the program in 2020. The program is centered around three core elements:

- A daily stand-up meeting: effective, short team sessions in which teams discuss results and set goals daily
- Cascading: discussing at each level whether the best care for patients is delivered and whether problems are solved as quickly as possible
- Gemba: supervisors support employees on the work floor to do their work in the best way possible

The second pillar is aimed at the development of human capital. Within this pillar, the hospital has introduced the leadership program "*Connecting Leaders*", which is aimed at developing leaders and their leadership behavior. The leadership program aims to develop leaders and their leadership behavior in line with the leadership vision that fits the Connecting U strategy. *Connecting Leaders* consists of longer core trajectories for starting and experienced leaders and several short leadership modules of one or two days. In addition to the modules, the program exists of other interventions, such as coaching, mentoring, peer feedback and a development dialogue. Leaders have been participating in the program since the end of 2015.

The third pillar focuses on decisive and sustainable organizing in order to make the collaboration between different departments and divisions within UMC Utrecht easier. To reach this goal, the program *"Slagvaardig besturen"* (Managing decisively) has introduced a new management philosophy and a different management structure. Some of the main changes in this program are that decisions are taken as closely as possible to the work floor and the introduction of dual management (duos being integrally responsible for the management) at the division level. These changes have led to a different management structure and dual management at all levels in 2018.

Together, the three pillars are aimed at creating change in the way of working at UMC Utrecht and the leadership style that is needed to do so.

2.3 REGULATORY PRESSURES FOR ACCREDITATION

In 2007, the report "Adverse events in Dutch hospitals" (De Bruijne, Zegers, Hoonhout, & Wagner, 2007) estimated that between 1,482 and 2,032 potentially preventable deaths had occurred in Dutch hospitals in 2004 (Zegers et al., 2009). As a result, the concern for patient safety has increased considerably and activities to ensure safety have been introduced (De Blok, Koster, Schilp, & Wagner, 2013). The main program that was introduced to improve patient safety was the Dutch Hospital Patient Safety Program (in short: Safety Program). The Safety Program was introduced in 2008.

In line with the rich tradition of self-regulation in the Netherlands (Kroneman et al., 2016), the Safety Program was initiated by five employers' organizations and professional associations[7] with the goal to reduce preventable accidental harm (De Blok et al., 2013).

7 The Order of Medical Specialists (OMS), the Dutch Hospitals Association (NVZ), the Netherlands Centre for Excellence in Nursing (LEVV), Nurses and Care Providers in the Netherlands (V&VN) and the NFU (VMS zorg, 2011).

The approach presented in the program comprised two main lines: the introduction of an accredited safety management system and ten specific evidence-based patient safety themes (Van Schoten, 2015; VMS Zorg, 2011).

The choice for an accredited safety management system was prompted by the 2004 report "You work safely here or not at all" (Willems, 2004)[8]. This report indicated that institutions must have a good understanding of care provision and effective opportunities for intervention to manage safety systematically. A safety management system consists of a systematic risk analysis, a system for incident reporting and a process for improvement. The goal of the safety management system is to aid the systematic management of safety or care provision in hospitals. Hospitals can elaborate on the safety management system in various ways, but the elements that each safety management system must comprise are laid down in the Dutch Technical Agreement (NTA 8009). All hospital organizations were therefore expected to introduce a safety management system (VMS zorg, 2011). Hospitals themselves can decide on the accreditation system they implement.

In addition to the implementation of a safety management system, the Safety Program also included ten specific interventions for improvement. Examples include prevention of hospital infections after an operation and prevention of medication errors. The issues were chosen based on the report on accidental harm in Dutch hospitals (De Bruijne et al., 2007) and through consultation with experts in the relevant professional groups. Performance indicators were developed for each issue to measure the improvements in each hospital.

The Safety Program had two goals: all hospitals had to have an accredited safety management system by the end of 2012 and all the defined objectives for the ten safety themes had to be achieved (Van Schoten, 2015). The Health Care Inspectorate (IGJ) supervised the introduction of the safety management system and the performance indicators of the ten themes. As a result, the implementation of a safety management system was *inevitable* for hospitals. Below, I reflect on UMC Utrecht's reaction to these pressures for accreditation.

2.4 ACCREDITATION AT UNIVERSITY MEDICAL CENTER UTRECHT

Increasing pressure for accreditation

UMC Utrecht has a long tradition of quality and patient safety. Due to the growing concern for quality and patient safety, UMC Utrecht established the *Kenniscentrum Patiënt-*

8 The introduction of a quality system was not new: the concept of a "quality system" was already introduced in 1990 as a reaction to the government's plan to introduce market forces and self-regulation. Since this deregulation would decrease government control, quality systems should be introduced by health care providers to guarantee the quality of care (Sluijs, Keijser, & Wagner, 2006).

veiligheid (Knowledge Center for Patient Safety) in 2006. The knowledge center is mainly academically focused and has played an important role nationally with publications, presentations, and the development of protocols and guidelines. One of the main developments was a systematic incident reconstruction and evaluation system (root cause analysis) and risk evaluation system (see Leistikow, 2010). These use of these systems was twofold: on the one hand they were used by UMC Utrecht's employees to improve patient safety at UMC Utrecht, on the other hand they were developed into national systems that were used by health care organizations throughout the Netherlands.

Internal UMC Utrecht policy documents indicate that, although a substantial body of knowledge was collected and shared with the sector, the use of this knowledge for UCM Utrecht's patient care was relatively limited. Moreover, UMC Utrecht had not yet implemented a safety management system and the ten themes of the National Safety Program. Increasing external pressures – including the approaching "deadline" of the national Safety Program's requirement to have a safety management system in place and an increasing focus on quality by the health insurers – led to a sense of urgency to implement an all-compassing quality system. Beyond the legal requirement to implement an accredited safety management system, UMC Utrecht was also motivated to choose an accreditation system that would take the hospital to the next step and that contributed to the continuous improvement of the quality of care provided to patients. UMC Utrecht chose an accreditation by the Joint Commission International (JCI), since this accreditation sets the bar higher every accreditation round; it is not only about being compliant, but improving with every accreditation round. Moreover, JCI accreditation was chosen since it is "practical, patient-centered, provides an integral perspective on quality of care and is recognized internationally" (Schneider & Van Rensen, 2016). UMC Utrecht received its first accreditation in July 2013 and the second in July 2016. Below, I will introduce the content of the JCI accreditation.

Standards of the Joint Commission International

The JCI program is an organizational accreditation approach that evaluates the capability of entire health care organizations to provide good results. The evaluation considers both functions and systems that support the provision of patient care, and those that support the organization and management of the organization. Standards are organized along the patient pathway throughout a health care organization, from entry to discharge (Donahue & Van Ostenberg, 2000).

The standards are divided into patient-centered functions and organization-centered functions (Joint Commission International, 2017). The patient-centered standards consist of eight chapters. The first chapter focuses on the international patient safety goals (IPSGs), referring to some of the most problematic areas of patient safety. Examples of international patient safety goals include improving effective communication and en-

suring safe surgery. The organization-centered standards consist of six chapters, which focus on core processes that support good management. Examples of core processes include leadership requirements and the qualification and education of staff. Finally, two chapters are included for academic medical centers. These standards address additional requirements for medical professional education and human subjects research. In Table 1, I have summarized the standards on patient-centered functions. I have focused on these standards since they are most relevant to my focus on motivation and compliance of health care professionals.

Table 1: Overview of JCI-standards

Chapter		Standards included
Patient-centered functions		
1	International patient safety goals (IPSGs)	The IPSGs aim to promote specific improvement in problematic patient safety areas. Examples include identifying patients correctly, and reducing the risk of patient harm resulting from falls.
2	Access to care and continuity of care	These standards focus on the care provided as part of an integrated system of services. Examples of standards include coordination and continuity of care, and referral, transfer and discharge of the patient.
3	Patient and family rights	This chapter focuses on defining patient rights and involving patients and their families in making decisions about the patient's care.
4	Assessment of patients	The standards in this chapter focus on the assessments of patients. Standards focus on collection information about the patient's condition, analyzing this information, and developing a plan of care to meet the patient's needs.
5	Care of patients	The standards in this chapter concern the coordination of the delivery of care and services by all individuals caring for the patient.
6	Anesthesia and surgical care	This chapter focuses on the surgical care, and the use of anesthesia and sedation.
7	Medication management and use	This chapter focuses on the selecting, procuring, storing, ordering/ prescribing, transcribing, distributing, preparing, dispensing, administering, documenting, and monitoring of medication therapies.
8	Patient and family education	The standards in this chapter aim to help patients better understand and participate in their care and make well-informed decisions.
Organization-centered functions		
9	Quality improvement and patient safety	This chapter focuses on having a comprehensive approach to quality improvement and patient safety throughout the health care organization.
10	Prevention and control of infections	These standards focus on identify and reduce or eliminate the risk of acquiring and transmitting infections among patients, staff, and others.
11	Governance, leadership and direction	This chapter focuses on effective leadership and the organization's responsibility to the patient population served.
12	Facility management and safety	These standards concern the provision of safe, functional and supportive facilities. Examples include fire safety and safe use of medical equipment.

Source: Joint Commission International, 2017

The JCI accreditation as a bureaucratic system

As I will explain in more detail in the theoretical framework of this dissertation, the JCI accreditation can be characterized as a bureaucratic control system. As I argued in the introduction of this dissertation, bureaucratic control systems emphasize the specification, monitoring, and enforcement of rules (Sitkin et al., 2010b). In line with the above definition, I will elaborate on the three parts of the accreditation system as it was introduced at UMC Utrecht.

Specification of policies

Based on the JCI standards, UMC Utrecht formulates policies in the "central policy cycle". The policy cycle includes the writing of a policy by the author and co-assessors (experts on the topic of the policy). Once approved by an editorial committee, advice from the council of medical staff and council of nursing staff[9] follow. The final step is approval by the executive board. The goal of this cycle is to make the quality and patient safety policies uniform throughout the hospital. Exceptions to policies are only allowed when these are in the patient's interest and need to be well substantiated. Exceptions to the central policies have to be approved by the quality and patient safety department and coupled to the central hospital policies as much as possible.

Monitoring

UMC Utrecht uses two main instruments to monitor compliance: the quality balanced scorecard[10] and the "tracers". The quality balanced scorecard is used to monitor the level of compliance of departments regarding key indicators of quality and patient safety. Key indicators include – but are not limited to – the international patient safety goals, continuity of care, and medication safety. Every three months, the quality and patient safety department reports to the executive board and the management about quality themes via the quality balanced scorecard. Based on this report, the executive board formulates priorities for the divisions. The progress on these priorities is part of the management contracts and the periodic discussions between the executive board and the management of the divisions.

UMC Utrecht's tracers are based on the tracer methodology that JCI surveyors use to assess hospitals' compliance with accreditation requirements. During a tracer, UMC's own employees investigate the level of compliance with quality and patient safety policies. The results of these investigations are collected in a central dashboard that shows the level of compliance of the departments that were traced. In order to support the

9 The council of medical staff and the council of nursing staff are independent boards that advice the executive board about issues regarding patient cure (medical staff) and care (nursing staff).

10 In addition to the quality balanced scorecard, the hospital also uses a financial balanced scorecard.

quality cycle, the quality and patient safety department regularly monitors all results and checks whether there are any trends. When needed, departments are asked to provide insight into the measures they are applying to implement improvements based on the tracer feedback.

As I will show in the methods chapter (chapter 4), both the quality balanced scorecard and the tracers are used as cases – or "vehicles" – as a focus for the data collection.

Enforcement

Whereas the formulation of policies and the monitoring of compliance with these policies is mainly situated at the organizational level, enforcement actions are situated at the level of the front line leader. UMC Utrecht's policy documents indicate that the line managers of departments (that is, medical department heads and nurse team leaders) are responsible for the quality of care in their department. This responsibility includes the task to implement the quality and patient safety policies that are part of the hospital's accreditation system in their department. In addition, front line leaders are also responsible for the implementation of improvements based on outcomes they receive from tracers, incidents, patient complaints, and outcome indicators. This second responsibility includes improvements aimed at increasing compliance with quality and patient safety policies. Based on the front line leaders' responsibilities for quality and patient safety, I expect that front line leaders are the main enforcement actors of quality and patient safety policies. As I will show in both the theoretical framework (chapter 3) and the methods chapter (chapter 4), the enforcement actions of both medical department heads and nurse team leaders are considered in this dissertation.

In sum, the JCI can be characterized as a bureaucratic system that focuses on specifying rules and monitoring compliance with these rules. These insights are a starting point for my empirical research into the enforcement actions of medical and nursing front line leaders.

2.5 CONCLUSION

In line with the engaged scholarship approach, I have introduced the research setting and overall case of quality and patient safety accreditation early on in this dissertation. The aim of this chapter was to "set the stage" by providing the reader with background information about the Dutch hospital care in general and UMC Utrecht in specific and about the case of quality and patient safety accreditation in Dutch hospital care in general and at UMC Utrecht in specific.

In this chapter, I have first introduced the Dutch health care system that is characterized by a system of managed competition and I have presented the different types of

health care providers in the system. After doing so, I have presented background information about UMC Utrecht. I have specifically focused on the structure of UMC Utrecht (until April 2018), which consists of three levels (the executive board, the divisions, and the departments) with health professionals working at each level. After the introduction of the health care system and UMC Utrecht, I have focused on the increased regulatory pressures for accreditation in the Netherlands. In this section, I have discussed the introduction of the Dutch Patient Safety Program that has been at the basis of hospital accreditation. Finally, I have introduced the case that is central to this accreditation: the JCI accreditation at UMC Utrecht. I have introduced both the content of the accreditation and I have argued why and how the accreditation can be characterized as a bureaucratic control system.

In the next chapter, I will present the theoretical background of this dissertation. In this chapter, I will give further consideration to accreditation systems and their characterization as bureaucratic systems. Moreover, I will introduce different ways to enforce the quality and patient safety policies of the accreditation system, and I will formulate expectations about the relation between these different ways of enforcement and health professional motivation and compliant behavior. Moreover, the insights from this chapter show the relevance of employing an engaged scholarship approach that allows using insights from the specific contexts of UMC Utrecht and quality and patient safety accreditation. In the methods chapter (chapter 4), I will provide a more elaborate discussion of the engaged scholarship approach.

Chapter 3

Theoretical framework

This chapter presents the theoretical framework that has been used to empirically study the enforcement of a bureaucratic rule system. I will use insights on accreditation, organizational control and enforcement to formulate expectations about different ways to enforce organizational rules and their relation with motivation to comply and compliant behavior.

This chapter is organized as follows. First, I will define accreditation and explain why I analyze accreditation as a bureaucratic control system (section 3.1). Second, I will discuss organizational control and explain my focus on the enforcement – rather than on the specification or monitoring – of rules of a bureaucratic control system (section 3.2). Third, I will introduce insights on enforcement actions from regulatory enforcement literature (section 3.3). Fourth, I will discuss how the insights on enforcement actions can be integrated into bureaucratic control systems literature (section 3.4). Fifth, I will formulate expectations about the relations between enforcement, motivation to comply and compliant behavior, and introduce the conceptual model that has been central to the empirical data collection (section 3.5).

3.1 ACCREDITATION

Accreditation is often defined as the systematic assessment of health care organizations against accepted – or pre-established or pre-determined – standards (Al-Awa et al., 2011; Alkhenizan & Shaw, 2011; Braithwaite et al., 2007; Brubakk, Vist, Bukholm, Barach, & Tjomsland, 2015; Greenfield, Pawsey, & Braithwaite, 2011; Hinchcliff et al., 2012; Shaw, 2000). Beyond this general definition, accreditation has been defined as a program "in which trained *external peer reviewers* evaluate a health care organization's *compliance* with pre-established *performance standards*. Accreditation addresses *organizational*, rather than individual practitioner, capability or performance" (Rooney & Van Ostenberg, 1999).

Based on this definition, several characteristics of accreditation can be pointed out. First, trained external peer reviewers are responsible for the accreditation decision. This decision is usually made following a periodic – usually every two or three years – on-site evaluation. Second, during this evaluation, the team of peer reviewers assesses whether a health care organization meets an acceptable threshold of compliance, that is, whether the health care organization is conforming to performance standards. Third, compliance is measured against performance standards. In health accreditation, a standard is "a desired and achievable level of performance against which actual performance is measured" (Greenfield, Pawsey, Hinchcliff, Moldovan, & Braithwaite, 2012). Fourth, accreditation focuses on an organization's level of performance rather than that of individual

practitioners. This distinguishes accreditation from other systems for quality assurance that are aimed at individual health care providers, such as registers (Van Harten, 2016).

Different authors (Ahrens & Khalifa, 2015; Touati & Pomey, 2009) have proposed to analyze accreditation as a bureaucratic control system. Bureaucratic control systems focus on describing how managers can measure the work of organizational members, compare their performance against pre-determined standards and provide rewards or sanctions based on these evaluations (Cardinal, Sitkin, & Long, 2010). In this dissertation, I follow this argument and investigate accreditation as a type of organizational control. In the next section, I will provide background information on organizational control.

3.2 ORGANIZATIONAL CONTROL

Defining organizational control

Following the management science tradition, control is defined as the process whereby managers direct attention and encourage organizational members to act in ways that increase the probability that the organization will achieve its goals (Cardinal et al., 2010; Merchant & Van der Stede, 2012; Ouchi, 1979; Snell, 1992). As Merchant and Van der Stede (2012) emphasize, the primary function of organizational control is to influence behaviors in desirable ways. Theories of organizational control in this tradition focus on describing how managers can measure and monitor the work of organizational members by comparing their performance to pre-determined standards and providing rewards or sanctions based on these evaluations (Cardinal et al., 2010).

Three control systems have been central to the literature: market, bureaucracy and clan (Ouchi, 1979, 1980). A *market* control system is characterized by a focus on prices. In a market, prices convey all necessary information for efficient decision-making since prices represent the value of a good or service. In a market system, managers use market-style pricing mechanisms such as commission-based incentives and results-based performance programs in order to align the motivation and actions of employees with the organizational goals. A *bureaucratic* control system is based on the fundamental control mechanism of close personal surveillance and direction of subordinates by supervisors. The information that is needed to complete tasks is detailed in rules – including rules about how processes should be completed or what standards of output should be achieved. To use a rule, a manager must observe actual performance and compare it to the rule in order to determine whether the actual performance is satisfactory. Based on this evaluation, a manager must reward compliance and/or provide sanctions for non-compliance. In short, bureaucratic control systems emphasize the specification, monitoring and enforcement of rules (Ouchi & Price, 1978). Finally, a *clan* system refers to informal social systems. In these systems, there is an important role for socialization

processes to reduce the differences between individual and organizational goals and to produce a strong sense of community (Ouchi, 1980). In a clan, most members share a common set of values and beliefs about how to coordinate their efforts in order to reach common goals (Ouchi & Price, 1978). This strong sense of community and the common goals provide motivation to serve the organization. The socialization processes central to a clan refer to unique organizations and can be distinguished from socialization processes that characterize occupational groups (Ouchi, 1979). Therefore, a clan system in a hospital does not refer to the highly formalized and lengthy period of socialization during which health professionals are subjected to "value training" (Ouchi, 1979), but rather to health professionals' socialization with regard to the organizational goals.

Control systems can be applied to different *control targets,* resulting in input control, behavior control or output control (Eisenhardt, 1985; Govindarajan & Fisher, 1990; Merchant, 1985; Ouchi, 1979; Snell, 1992). The underlying idea is that by directing control mechanisms towards targets, managers aim to align the goals of employees with those of the organization (Cardinal et al., 2010). *Input* targets refer to directing how material and human resource elements of the production process are chosen and prepared. Examples include managing human inputs through selection, training and socialization. *Behavior* targets are used when managers want to regulate the actions that individuals exhibit on the job. Examples include process rules and behavioral norms. Finally, *output* targets are used to align output quantity or quality with specific production standards. Examples include customer satisfaction levels and production volumes (Cardinal et al., 2010; Ouchi, 1977).

Above, I have clarified different control *systems* and different *targets* that these control systems can be directed towards. In section 3.1, I have defined accreditation as the assessment of compliance with standards. Based on this definition, accreditation can be defined as a bureaucratic control system (because accreditation involves standards) applied to a behavior target (because accreditation focuses on compliance with these standards). Therefore, following previous studies (Ahrens & Khalifa, 2015; Touati & Pomey, 2009), I refer to accreditation as a bureaucratic system aimed at behavior control. This type of control is aimed at the formalization of behavior and is chosen when organizations want to ensure that individuals perform actions in a specific manner (Cardinal et al., 2010). A bureaucratic control system aimed at a behavior target consists of defining and specifying behavioral rules, monitoring whether individuals comply with the rules, and rewarding good actions or punishing actions that deviate from the rules (Merchant & Van der Stede, 2012; Ouchi & Price, 1978).

In this section, I have introduced organizational control and characterized accreditation as a bureaucratic control system aimed at behavioral control. Several limits to this type of organizational control have been pointed out, as I will illustrate below.

The limits to bureaucratic control systems

Bureaucratic control systems are based on the assumption that there is a divergence of preferences among organizational members. The belief is that individuals have self-interested inclinations towards actions which do not necessarily align with those of the other organizational members. The role of organizational control is therefore to provide sanctions and rewards to ensure that individuals will also pursue the collective interest (Eisenhardt, 1985; Korsgaard, Meglino, & Jeong, 2010; Weibel, 2010). Put differently, formal control is based on mechanisms of *extrinsic motivation* (Weibel, 2010). Extrinsic motivation, doing something because the action leads to a separable outcome, is distinguished from intrinsic motivation, doing something because the actions are inherently interesting or enjoyable (Ryan & Deci, 2000). The idea is that the rewards and punishments used in action control increase extrinsic motivation. Extrinsic motivation, in turn, ensures that individuals change their behavior in order to receive a reward or avoid a sanction or punishment.

Although the mechanisms of extrinsic motivation might seem straightforward, bureaucratic control systems are not effective in the complex and unpredictable hospital context (Abernethy et al., 2007; Aidemark & Funck, 2009; De Harlez & Malagueño, 2016). Ouchi (1979), in his classic work on organizational control, even explicitly refers to a hospital as a case where "even the most dedicated attempts at systematic performance auditing would be frustrated" (p. 837). This is the result of the inherent ambiguity in performance and the difficulty of specifying and measuring actions that contribute to performance. As a result of these difficulties, monitoring and rewarding cannot be applied successfully (Abernethy & Stoelwinder, 1995; Ouchi, 1979).

As Weibel (2010) argues, in these situations, *intrinsic motivation* – resulting in the alignment of individual and organizational goals through goal compatibility – is a more effective way to achieve the organization's goals. In the case of intrinsic motivation, employees cooperate because they find it enjoyable or because they endorse the values underlying that behavior. However, bureaucratic control has been found to have a negative effect on intrinsic motivation (Weibel, 2010). This can be explained by the argument that bureaucratic control systems signal distrust and a reaction to distrust is the reduction of intrinsic motivation (Sitkin et al., 2010b).

As a result, all arguments seem to suggest that a bureaucratic control system cannot be effective in a professional organization. Although this might suggest that the simple solution is not to use bureaucratic control systems, this is no viable option since hospitals are faced with legal pressures to implement accreditation systems (see chapters 1 and 2). This leads to the question what hospitals should do in these cases? Some authors (Mikkelsen et al., 2017; Weibel, 2010) have suggested that control mechanisms can be *enacted* in different ways, and that these different ways have other motivational and behavioral outcomes. Weibel, for example, argues that bureaucratic control systems can be designed and enacted in a way that boosts intrinsic motivation. In this dissertation,

I follow the starting point of different ways to enact bureaucratic systems. Below, I will introduce the specific approach to investigating different ways of enactment that I have used in this dissertation.

Different ways to enact bureaucratic behavioral control

As I have shown in the definition of a bureaucratic control system, such systems consist of three steps: specification, monitoring, and enforcement of rules. As Kirsch (1996) notes, the relationship between monitoring and enforcement has often been confounded in the literature. Some authors view monitoring as part of control, whereas others view it as an antecedent to the exercise of control. I follow Eisenhardt (1985), who notes that monitoring serves as an information system that makes behavior observable, whereas punishment and reward influence the way in which actions are regulated. Based on this observation, I will focus on the *enforcement* of rules, since this is the core of the exercise of control.

Since literature on enforcement is not common to the field of management control, I have used insights from regulatory enforcement literature. Regulatory enforcement research traditionally focuses primarily on the direct relationship between regulators and organizations and much of the literature examines the enforcement styles of inspectors or regulatory agencies and their relation with compliance (Gray & Silbey, 2011; Parker & Nielsen, 2011). To refine the insights on accreditation systems in particular and bureaucratic control systems more broadly, I propose to use insights on enforcement styles to understand enforcement and compliance of individuals *within* the organization. Below, I will introduce insights from regulatory enforcement literature.

3.3 ENFORCEMENT STYLES

Before introducing the enforcement styles that are distinguished within the literature on regulatory enforcement, I will first shortly introduce the main outcome variable of studies on regulatory enforcement (Parker & Nielsen, 2011): compliance.

Enforcement outcome: compliance

Often, an organizational response to regulation – usually "compliance" or "non-compliance" – is the dependent variable of enforcement studies (Parker & Nielsen, 2011)[11]. As Parker and Nielsen (2009b) explain, defining compliance is complex because researchers

11 In this dissertation, I focus on "objectivist" research within regulatory enforcement studies; in this view, "compliance" and "non-compliance" are taken as a given and are explained by several factors. As Parker and Nielsen (Parker & Nielsen, 2011) explain, there are also interpretive studies aimed at understanding the processes by which compliance is socially constructed.

themselves have to define and operationalize compliance by choosing an evaluation standard for compliance. Put differently, researchers need to give the concept of compliance meaning by providing a concrete description (Parker & Nielsen, 2009b). In this dissertation, I define compliance as acting in line with explicit requirements of quality and patient safety policies.

Due to the complexities involved in defining compliance by reference to actual compliance behavior, researchers have focused instead on two alternatives to avoid operationalizing compliant behavior (Parker & Nielsen, 2009b). First, researchers have used compliance attitudes and motivations, also referred to as psychological (non-)compliance. However, as Parker and Nielsen argue, a positive attitude or motivation might not lead to behavior and they are therefore not a proxy or substitute for behavior. Second, researchers have used policy goals that organizations should meet by complying with regulation. One example in the case of quality and patient safety accreditation would be to investigate whether the outcome of improved quality and safety of patient care is obtained. However, as Parker and Nielsen argue, this approach cannot say whether it is compliance with rules that delivers the outcome or not.

In sum, studies in the field of regulatory enforcement have used three ways to operationalize compliance: compliance behavior, compliance attitudes or motivation, and compliance outcomes. This dissertation focuses on compliant *behavior* – defined as compliance with the explicit requirements of quality and patient safety policies – as the core outcome.

Enforcement styles

Enforcement style is defined as the day-to-day interactions of regulatory agencies' inspectors and regulated entities (May & Winter, 1999, 2011; May & Wood, 2003). Enforcement style is about the discretionary behaviors of regulatory agencies' inspectors and the way in which they relate to those they regulate (May & Winter, 2011). An example of enforcement style includes interactions between inspectors of the health care inspectorate and hospitals.

Various scholars (Ayres & Braithwaite, 1992; Braithwaite, 1985; Gormley, 1998; Kagan, 1994; Mikkelsen et al., 2017; Reiss, 1984; Shover et al., 1984) have suggested two broad models of enforcement. One the one hand, there is a style based on the belief that regulatees will comply with the law only when confronted with tough sanctions and on the other hand, there is a style based on the belief that gentle persuasion works in securing compliance with the law (Ayres & Braithwaite, 1992). Below, I present the conceptualizations of some of the most-cited authors. For purposes of simplicity, I discuss the different styles as ideal types, but in reality they are shifting points on a continuum (Hawkins, 1984; Hutter, 1989).

Hawkins (1984) distinguishes a "conciliatory" and a "penal" style of enforcement. A conciliatory style relies upon bargaining to attain conformity. The focus is on responding

to problems and negotiating future conformity to standards. In contrast, a penal style enforces prohibitions with punishment. The style is characterized by being accusatory and adversarial. It is about detecting law-breakers and giving them the appropriate sanction. Hutter (1989) distinguishes "accommodative" (or "compliance") enforcement and "deterrence" (or "sanctioning") enforcement. The first aims to secure compliance by remedying existing problems and, more importantly, preventing new problems. The methods to achieve these ends are conciliatory and co-operative: persuasion, negotiation, and education are the primary enforcement methods. Inspectors using this style explain what the law demands and reasons for requirements, and they explain how improvements can be attained. This model is contrasted to the "deterrence" model which represents a penal style of enforcement that emphasizes prosecution. The preferred enforcement methods are penal and adversarial. Scholz (1984) distinguishes a deterrence (or rule-oriented) strategy and a cooperative strategy. A deterrence strategy seeks to coerce compliance through the maximal detection and sanctioning of violation of legal rules. Emphasis is put on the need for mechanisms to ensure that amoral individuals consider complying with the law their best interest. A cooperative strategy, on the other hand, emphasizes flexible or selective enforcement that takes into account the particular circumstances of an observed violation. This perspective implicitly assumes a willingness to obey laws and as a result, the need for reasonable enforcement and persuasion is stressed. Other often-cited authors (Gormley, 1998; Kagan, 1994; Reiss, 1984; Shover et al., 1984) have formulated similar distinctions between two broad categories of enforcement. In Table 2, I have summarized the terminology used by these authors.

Table 2: Enforcement styles

Author	Punishment	Persuasion
Reiss (1984)	Deterrence seeks to detect violations and punish violators	Compliance seeking to prevent violations, in part by accommodation
Shover, Lynxwiler, Groce, & Clelland (1984)	Legalistic punitive, rule-oriented, or strict enforcement	Conciliatory based on trusting regulatees and sympathizing with the difficulties they face
Kagan (1994)	Rule-oriented, "punitive", "strict"	"Conciliatory", "accommodating"
Gormley (1998)	Deterrence punishing regulated firms that violate laws or rules	Bargaining persuading regulated firms to improve their performance

In sum, although authors use different labels, they substantially overlap in the way they distinguish between two broad categories of enforcement actions (Mikkelsen et al., 2017; Mikkelsen, 2015). I follow these two broad categories and refer to them as "punishment" (focused on threatening and punishing violators) and "persuasion" (focused on persuading violators to improve their performance) (Ayres & Braithwaite, 1992;

Braithwaite, 1985). Below, I discuss these the assumptions underlying these two broad types of enforcement.

Two models of enforcement

The punishment approach is based on the criminal law model of deterrence (May, 2004). Central to the deterrence model is the assumption that individuals will only do "the right thing" when it is in their self-interest to do so. Organizations or individuals are seen as profit-maximizing "amoral calculators" that are motived only by self-interest (Kagan, Gunningham, & Thornton, 2003, 2011). In this view, based on law and economic theory, compliance is seen as a calculated outcome of an equation of the benefits of non-compliance versus the costs of being discovered and punished. Regulated entities take measures to improve their compliance only when they believe that non-compliance is likely to be detected and penalized (Becker, 1968; Miller & Anderson, 1973; Stigler, 1970). Overall, the assumption is that deterrence motivates though the fear of the consequences of being found in violation or rational calculations about the potential cost of sanctions or penalties (OECD, 2000). Coercion is a necessary ingredient to alter the decision calculus in favor of compliance (May & Winter, 1999). Behind this model is the assumption that individuals or organizations are unwilling to comply with regulations and therefore must be compelled to do so by setting forth rules and the consequences of non-compliance (May, 2004, 2005; May & Wood, 2003).

The basis for persuasive enforcement strategies is the assumption that most individuals or organizations are inclined to comply with the law because they believe in the rule of law (OECD, 2000). This "normative duty" is the desire to conform to internalized norms and beliefs about the right thing to do (Kagan et al., 2011; Nielsen & Parker, 2012). Persuasive enforcement assumes that individuals are willing to comply with rules and regulations, but are unable to do so because they do not recognize the problem, do not understand what can be done to be compliant or do not have the capacity to be compliant. As a result, when they are supported in the form of information or assistance, compliance gaps that are caused by a lack of knowledge, insufficient understanding of how to comply, or lacking capacity to take the desired actions can be addressed (May, 2005; May & Winter, 1999).

In sum, the enforcement literature distinguishes two different approaches to ensure compliance with rules and regulations. On the one hand, a persuasive approach focuses on persuading employees to comply. On the other hand, there is a punishment approach, focusing on (threats) of sanctions for non-compliance. These two approaches are expected to contribute to compliance via different mechanisms: persuasion contributes to internalization, whereas punishment leads to increased feelings of pressure to comply. Below, I integrate enforcement styles into a bureaucratic control system.

3.4 INTEGRATING ENFORCEMENT INTO A BUREAUCRATIC CONTROL SYSTEM

So far, I have discussed the organizational control and regulatory enforcement literature separately. Since my argument is that enforcement styles can be used to consider enactment of a bureaucratic control system, I will now turn to integrating the two streams of literature.

Integrating bureaucratic control and enforcement styles

The punishment approach, with its focus on self-interested individuals as rational actors, strongly resembles the model of extrinsic motivation that underlies a bureaucratic system. This similarity has been noticed by Scholz (Scholz, 1984) who states that the emphasis on rational actors in the enforcement literature has been particularly influential since this emphasis is also central to management theories emphasizing the economic theory of the firm. The persuasive approach, on the other hand, with its focus on internalization of the importance of rules, is comparable to intrinsic motivation. This similarity between the types of motivation discussed in regulatory enforcement and organizational theories has also been noticed by (Nielsen & Parker, 2012), who argue that economic interests are thought to be similar to extrinsic motivation while normative motives are thought to be similar to intrinsic motivation. In sum, whereas the punishment style seems to be in line with the assumptions underlying bureaucratic systems, the persuasive style suggests an approach to the enactment of a bureaucratic system that contributes to intrinsic motivation. Using insights from the regulatory enforcement literature therefore adds nuance to the bureaucratic control system by presenting a way to enforce rules that is related to intrinsic motivation.

Whereas the organizational control literature suggests that the clan system is the only control system that is related to internalization, I suggest that internalization can also be the result of a persuasive enactment of a bureaucratic control system. Therefore, I propose that the integration of enforcement styles into a bureaucratic control system can be visualized as follows (see Figure 3):

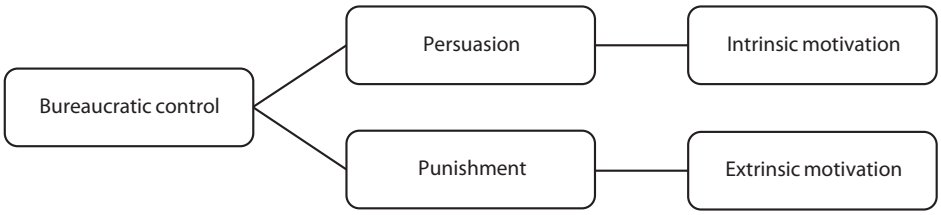

Figure 3: Integrating bureaucratic control, enforcement styles, and motivation to comply

Integrating the different settings

In addition to integrating the theoretical concepts of bureaucratic control and enforcement, I also have to integrate the different *settings* of the literature streams. Since the regulatory enforcement literature mainly focuses on actions by "inspectors" to ensure compliance of "regulated entities", the insights from enforcement theory need to be translated to the hospital organization.

To make the translation from "inspectors" and "regulated entities" to organizational actors, I use Mintzberg's insights on elements of organizational structure. As Mintzberg (1980, p. 323) shows, organizations can be described in terms of three basic parts[12]:

- "The operating core includes all those employees who themselves produce the basic products and services of the organization, or directly support their production.
- The strategic apex consists of the top general managers of the organization, and their personal staff.
- The middle line comprises those managers who sit in a direct line of formal authority between the people of the strategic apex and of the operating core".

In these basic parts, a distinction can be made between "employees" and "managers". These two main actors are comparable with "regulated entities" and "inspectors" respectively. I argue that "managers" can be considered to be similar to "inspectors" since they show different enactment patterns in relating to their subordinates (Tannenbaum & Schmid, 1958 in Weibel, 2010). Based on the elements described by Mintzberg, "managers" can be found at the level of the strategic apex *and* in the middle line. Based on the implementation strategy of UMC Utrecht (see chapter 2), I expect that the strategic apex plays a central role in the formulation of rules and the monitoring of compliance and the "middle line" plays a central role in the enforcement process.

Within Mintzberg's "middle line", two levels of management can be situated: middle management and lower management (Alexander, 1979; Pavett & Lau, 1983). Porter (1961) defines the middle level as those positions above the first level of supervision and lower level as the first-line of supervision. Since there is no generally valid demarcation between "lower-level" and "middle-level" (Staehle & Schirmer, 1992), I define these levels according to the actors of UMC Utrecht's organizational structure (see chapter 2). Managers at the division level – nurse managers and medical managers – are considered to be middle management and managers at the department level – nurse team leaders and medical department heads – are considered to be lower management. Based on UMC Utrecht's implementation strategy (see chapter 2), I expect that lower management – also referred to as front line management – is the most important enforcement actor at UMC Utrecht. As I have explained in the context chapter (chapter 2), it is important

12 Mintzberg also describes two "staff" functions: technostructure and support staff. However, due to my focus on managerial enforcement *actions* in the "line", I did not consider these staff functions.

to note that middle and front line managers in the hospital context are professionals themselves. They therefore have a "double" role as "manager" and as "professional".

In sum, I expect that different actors are involved in the bureaucratic control system: rules are formulated and compliance is monitored by the executive board (the strategic apex), enforcement actions are taken by the front line leaders (the middle line), and motivation and compliance are situated at the level of individual physicians and nurses (the operating core). I have summarized these different steps of the bureaucratic control system and the medical and nurse actors involved in each of the steps in Table 3. In the empirical part of this dissertation, I will only consider enforcement actions, motivation and compliant behavior.

Table 3: Actors involved in bureaucratic control/accreditation

Concept	Basic part	Management level	Medical actor	Nurse actor
Formulating rules	Strategic apex	Top management	Executive board	
Monitoring compliance				
Enforcement actions	Middle line	Middle management	Medical manger*	Nurse manager*
		Lower/front line management	Medical department head*	Nurse team leader*
Motivation	Operating core	No management	Physicians	Nurses
Compliant behavior				

* In some divisions and departments, these medical and nurse actors together form a dual management team.

Now that I have specified how insights on bureaucratic control and enforcement can be combined, I will turn to the formulation of the propositions and the conceptual model.

3.5 PROPOSITIONS AND CONCEPTUAL MODEL

In this section, I will summarize the main concepts that are central to this study, and I will formulate expectations about the relations between enforcement actions, motivation, and compliant behavior.

Following the main concepts in enforcement studies, I will include motivation to comply and compliant behavior as two separate concepts (Parker & Nielsen, 2009b). In line with the main types of motivation distinguished by Weibel (2010) and the enforcement literature, I will focus on extrinsic and intrinsic motivation as the two main types of motivation. *Extrinsic motivation* refers to doing something because the actions lead to a separable outcome and *intrinsic motivation* refers to doing something because

the activity is inherently interesting or enjoyable (Ryan & Deci, 2000). I define *compliant behavior* (or *compliance*) as acting in line with the explicit requirements of quality and patient safety policies (Meyer & Herscovitch, 2001). In the regulatory enforcement literature, it is argued that motivations are likely to be important explanatory variables for compliance behavior (Parker & Nielsen, 2009a, 2009b, 2011). It is expected that *both* intrinsic and extrinsic motivation explain compliance.

Since authors in the field of organizational control (Weibel, 2010) and enforcement (Ayres & Braithwaite, 1992) use processes of internalization to explain the relation between (enforcement) actions and motivation, I will use insights from self-determination (SDT) theory to formulate expectations. SDT (Ryan & Deci, 2000) specifies under which conditions external interventions facilitate and under which conditions they inhibit intrinsic motivation. In order for an external intervention to contribute to intrinsic motivation, it must support individuals' feelings of autonomy, competence and relatedness. If external interventions restrict these feelings, they have a negative effect on intrinsic motivation. Most importantly, a context that aims to support intrinsic motivation needs to have some autonomy-supportive characteristics (Ryan & Deci, 2000; Weibel, 2010). Mikkelsen and colleagues (2017) use SDT to formulate expectations about the relation between enforcement actions and motivation. They argue that "soft actions" (comparable to persuasion) support individuals' need for self-determination. "Hard" actions (comparable to punishment) try to change behavior by involuntary means, resulting in a shift to external motivation and the undermining of intrinsic motivation. This is explained by the fact that internalization is inhibited when individuals view their actions as being caused by punishment (Ayres & Braithwaite, 1992; Mikkelsen, 2015). Based on these arguments, I expect that:

Proposition 1: Persuasion is related to compliance via intrinsic motivation

Proposition 2: Punishment is related to compliance via extrinsic motivation

In Figure 4, these two propositions are summarized in a conceptual model. The model indicates that medical department heads and nurse team leaders are the "enforcement actors". When they take persuasive actions, I expect that this contributes to compliance via intrinsic motivation and when they take punishment actions, I expect that this contributes to compliance via extrinsic motivation. As the model visualizes, the different central concepts are situated at different *levels*. Enforcement actions are situated at the level of the department, whereas motivation and compliant behavior are situated at the level of the individual health professional. This implies that the actions of front line leaders at the department level are expected to contribute to motivation and compliance at the individual level.

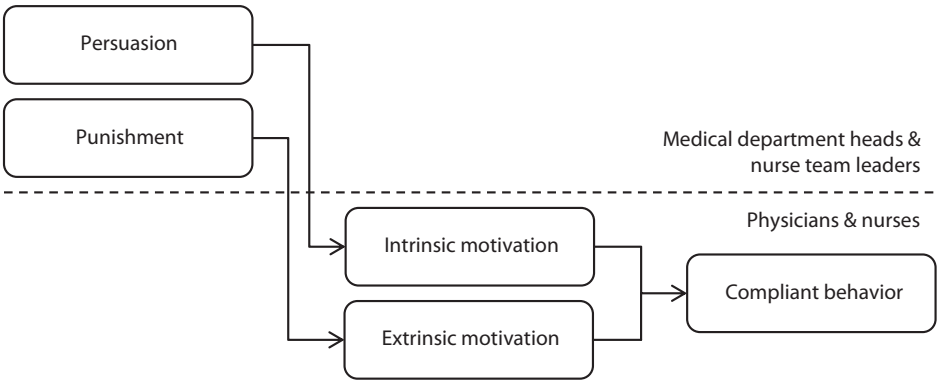

Figure 4: Conceptual model

3.6 SUMMARY: ENFORCEMENT OF ACCREDITATION POLICIES IN HOSPITALS

In this chapter, I have presented the theoretical framework that was used to empirically study the enforcement of a bureaucratic system at UMC Utrecht. To do so, I have first defined accreditation systems and explained why such systems can be analyzed from an organizational control perspective. This was followed by a discussion on organizational control systems. In this discussion, I have shown the assumptions underlying bureaucratic control systems and I have indicated why these assumptions are often thought to be problematic in a (professional) organizational context. Since hospitals face regulatory pressures, they have to implement an accreditation system. As a result, I have introduced different approaches to enforce the rules of a bureaucratic control system as a "way forward". The core of the argument is that different enforcement approaches can be used to enforce rules, and that these approaches have different outcomes. As a result, I expect that the enforcement of rules in a bureaucratic system is not necessarily related to negative outcomes, such as lower levels of motivation.

To study different ways to enforce policies of a bureaucratic control system, I have used insights from the regulatory enforcement literature. This literature distinguishes two approaches to enforcement: persuasion (based on dialogue and suggestions) and punishment (or threats thereof). Both approaches have different mechanisms that relate them to compliance: persuasion contributes to compliance via intrinsic motivation and punishment contributes to compliance via extrinsic motivation. Since the regulatory enforcement literature usually focuses on the interaction between regulatory agencies and regulated organizations, I have applied the insights on enforcement styles to the organizational level. Finally, I have summarized the insights from this chapter in three propositions and a conceptual model.

In the next chapter, I will introduce the research design that I have used to explore the enforcement actions used by front line leaders and to investigate their relation with health care professionals' motivation and compliant behavior.

Chapter 4

Research approach and design

In this chapter, I will discuss the research approach and overall research design of this dissertation. In addition to providing information about the research approach and design of this dissertation, my aim is to provide a guide to other researchers that aspire to use an engaged scholarship approach.

This chapter is structured as follows. First, I will explain the engaged scholarship approach that is central to this dissertation (4.1). Second, I will introduce the main features of the research design (section 4.2). In section 4.3, I will introduce the cases and methods that have been used in the three studies that are central to this dissertation. Finally, in section 4.4, I will summarize the main features of the research design. I will provide more detailed information about the methods and techniques for each study in the chapters that present the empirical results (chapters 5, 6 and 7).

4.1 RESEARCH APPROACH: ENGAGED SCHOLARSHIP

In this section, I will first introduce the theory behind the engaged scholarship approach and then explain the specific engaged scholarship design and process that has been used for this dissertation.

The engaged scholarship approach

Engaged scholarship[13] (Boyer, 1996; Cummings, 2007; Van de Ven, 2007; Van de Ven & Johnson, 2006) is about engaging practitioners in theory and research, and thereby address important questions that are of interest to practice and develop more robust analyses and theories that have greater relevance and importance to the public (Barge & Shockley-Zalabak, 2008; Shapiro, Kirkman, & Courtney, 2007). An often-used definition of engaged scholarship has been formulated by Van de Ven and Johnson (2006): the *collaboration* between academics and practitioners in which academics and practitioners use their different perspectives to co-produce knowledge about complex questions. Using the concept of arbitrage, Van de Ven and Johnson (2006) show that theory and practice reflect different forms of knowledge and competencies that need to be placed in a dialectical relationship with each other in order to enrich one another (Barge & Shockley-Zalabak, 2008). By using the diversity of perspectives that theory and practice bring to making sense of a problem, engaged scholarship can produce knowledge that is more insightful than the knowledge produced by practitioners or scholars working on

13 Engaged scholarship is closely linked to related approaches such as action research and participatory evaluation (Cuthill, 2010), "collaborative research" (Balogun et al., 2003; Higgs & Rowland, 2005; Huff, 2000), and "co-production" of research (Martin, 2010). For clarity and readability, I have focused the discussion in this chapter on engaged scholarship only.

problems on their own (Barge & Shockley-Zalabak, 2008; Bowen & Graham, 2013; Van de Ven, 2007; Van de Ven & Johnson, 2006). Engagement involves collaboration between researchers and practitioners in a learning community where they jointly produce knowledge (Van de Ven, 2007). Engagement requires being immersed in organizations and involved in close work and learning with practitioners. It is about knowledge that is co-constructed rather than simply transmitted or translated (Barge & Shockley-Zalabak, 2008; Simpson & Seibold, 2008).

Van den Ven and Johnson (2006) argue that an engaged research project should be *designed* as a collaborative learning community. Ideally, a research team consists of co-investigators from different disciplines and practices, preferably members that are relative insiders in a setting and members that are relative outsiders. Through repeated meetings over time, members share their different but complementary perspectives, leading to insights that are richer and more penetrating. Related to this strategy, Van de Ven and Johnson (2006) argue that the study should be designed for an extended duration, since time is crucial for building direct and personal relationships of trust and learning. Engagement implies that scholars are informed by the interpretation and knowledge of practitioners in each step of the research process: problem formulation, theory building, research design and problem solving (Van de Ven, 2007). In addition, engaged scholarship emphasizes the importance of accommodating new issues that arise during the research process (Small & Uttal, 2005; Van de Ven, 2007). These new issues are not only the result of improved understanding of a practice, but also due to changes in this practice. This indicates that some degree of flexibility is needed, resulting in a research process that is not as "stable" as "traditional" academic research.

Below, I will explain how I designed the engaged scholarship approach in this dissertation and how the process of being engaged has evolved.

Engaged scholarship design

This dissertation is the result of an extensive research collaboration between UMC Utrecht and the Utrecht University School of Governance (USG). Several design parameters can be pointed out that characterize the design of this collaboration.

First, the core research team consisted of two scholars from the USG and two practitioners from UMC Utrecht. The research team had monthly meetings throughout all phases of the research process to discuss the dissertation project. During these meetings, different viewpoints on the research were shared to co-produce knowledge. This means that this dissertation was truly co-produced, rather than being the product of a joint data collection project at UMC Utrecht. The different members of the research team did not only participate in the research project, but also had official roles in the process. One USG scholar and a practitioner from UMC Utrecht acted as promotors of the project, while the other practitioner from UMC Utrecht acted as co-promotor. Moreover, as a

PhD student I was employed by both the university and the hospital, leading to a strong connection with both the USG and UMC Utrecht.

Second, the research conducted for this dissertation was part of a broader collaboration between UMC Utrecht and Utrecht University in the "professional performance" focus area. This focus area aims to describe, analyze and evaluate changes in and around professional work and professional services (Noordegraaf et al., 2015). As a result of this broader collaboration, knowledge had already been co-produced for some time before the start of this PhD project. Based on this collaboration, there was already a high level of trust and mutual learning at the start of the project.

Third, I actively participated in UMC Utrecht's quality and patient safety department[14] by working at the department for several days a week. In addition to having several meetings with the department's employees about my research, I also contributed to the department's projects. Examples of my engagement with the department include contributing to the department's "knowledge lunches" with presentations on topics that the department was interested in (for example, creating a culture of safety), setting up and analyzing a survey on patient safety culture, and participating in two research projects of the Netherlands Federation of University Medical Centers (see Heineman et al., 2014) on behalf of UMC Utrecht. This active participation helped me to build a personal network with the employees of the department.

Engaged scholarship process

In the previous section, I described the design parameters of the engaged scholarship project. In this section, I will reflect upon how the research process of engagement evolved during the phases of the research project. I will discuss the four stages of the research process as a sequence, starting with problem formulation, then theory building, testing these theories, and applying the findings. However, since these four activities are highly interdependent, iterations and revisions of these activities took place throughout the study (Van de Ven, 2007).

At the start of the research project, I familiarized myself with the context of UMC Utrecht and quality and patient safety accreditation. Actions included observing tracers (see chapter 5 for an explanation about tracers), having informal conversations with physicians and nurses about their work and UMC Utrecht's accreditation, observing handovers and patient rounds, observing patient care in an inpatient department, and observing visits by the JCI consultants. Based on this familiarization and discussion in

14 At the start of the project, both practitioners from the research team were closely affiliated with the quality and patient safety department. Moreover, as the core task of this department was central to the overall focus on quality and patient safety accreditation of my dissertation, this department's knowledge has therefore also been essential.

the research team, it turned out that the *research problem* UMC Utrecht was facing could be narrowed down to the issue of managerial actions. Although the top management of UMC Utrecht is in charge of formulating quality and patient safety policies and providing instruments to support implementation, it is dependent on managerial actions at different levels of the hospital's hierarchy to implement the quality and patient safety policies. However, since these managerial actions are relatively "hidden", it was unknown which managerial actions were taken by whom and whether and how these managerial actions were related to physicians' compliance with quality and patient safety policies.

Based on the main research question, several possible streams of literature were considered as input to answer the research question. From UMC Utrecht, there was an emphasis on implementation science – the scientific study of methods to advance the systematic uptake of evidence-based practices into routine clinical practice (Nilsen, 2015; Nilsen, Ståhl, Roback, & Cairney, 2013). After an investigation of this stream of literature, however, it turned out that insights from this stream of literature were not considered to be useful since it is mainly focused on *interventions* (such as education, feedback and reminders) (Grol & Grimshaw, 2003; Johnson & May, 2015). As the research problem indicated, however, the practice question of UMC Utrecht was focused on *managerial actions*. Therefore, the research team jointly decided to focus on the role of managerial enactment of organizational control by using the organizational control and enforcement literatures as a central theoretical focus of this dissertation. As I explained in the theoretical framework of this dissertation (chapter 3), I applied insights from regulatory enforcement literature to enforcement in the organization.

In the *design* of the studies that are included in this dissertation, I used insights from practice to select the methods, cases (policies used as a "vehicle" to study enforcement), and actors for each study (see section 4.2 for more details about the research design). First, the design of the three studies included in this study was discussed during the regular meetings of the research team. Central themes in these discussions were, for example, which actors were most interesting to include in the studies and which cases could contribute to both insights for practice and theoretical advancement. Second, I discussed my research design with colleagues from the quality and patient safety department in order to incorporate their insights into the design as well. Examples of such discussions include a meeting with the director of the department about the different quality and patient safety policies and which of them were relevant and suitable for my dissertation. Third, once the specific cases and actors for each study had been chosen, I used insights from the practitioners closely related to these cases to discuss how to collect the most relevant and useful data for the study. Examples include using practical input from physicians that had been responsible for the formulation of two of the policies that I have used as cases (see section 4.3, and chapters 6 and 7).

In the research design, I explicitly allowed room for flexibility in designing and conducting the research by making use of a two-stage process. In the first phase (spring and summer 2015), I collected data for two studies. In order to be able to use insights from these studies and incorporate developments at UMC Utrecht, I designed the second phase starting in the fall of 2016 (and collected data in spring 2017). In the period between the first and second phases of data collection (summer 2015 and fall 2016), I analyzed the data and wrote up the results of the first and second study. Moreover, in this period I also participated in several research projects for UMC Utrecht (see the section on engaged scholarship design). In the design of the third study, I used the results of the first round of data collection to choose a relevant case, methods and actors. In the discussion of the three studies included in this dissertation (section 4.3), I will pay explicit attention to the additional insights from the first two studies that led to the design of the third study. The flexible design is summarized in Figure 5.

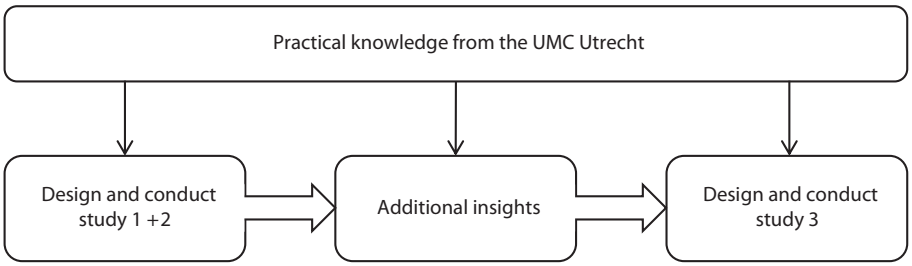

Figure 5: Flexible research approach

Finally, to link the findings back to UMC Utrecht, I took sufficient time to share and discuss the main findings of the three studies with the relevant practitioners at UMC Utrecht. First, I discussed the (preliminary) research findings on a regular basis with the research team. Second, I presented the research findings to and discussed them with employees of the quality and patient safety department. This happened both during more formal presentations and during informal discussion about the results. Moreover, I had one-on-one meetings with the practitioners involved in the separate projects and gave presentations about my research findings. For the second study (see chapter 6), for example, I extensively discussed the results with the physician responsible for the policy and I presented the findings to UMC Utrecht's council of medical staff. In addition to contributing to UMC Utrecht's improved understanding of the research issue that is central to this dissertation, the regular discussions and reflections during the data collection and analysis helped me to strengthen and improve my interpretation of the data.

In this section, I explained both the design and the process of the engaged scholarship approach that was used in this dissertation. Below, I will introduce the design "parameters" that characterize the overall design of these studies.

4.2 RESEARCH DESIGN

The overall design that was used to collect data for this dissertation is based on the use of a multiple methods and multiple cases. I will introduce these two elements below.

Multiple methods

By applying insights from regulatory enforcement theory to study enforcement actions in an organizational context (see chapter 3), the state of theory used in this dissertation can be characterized as "intermediate" (Edmondson & McManus, 2007). Intermediate theory is positioned between mature theory (encompassing precise models, supported by extensive research) and nascent theory (topics for which little or no previous theory exists) and draws from prior work – often separate bodies of literature – to propose provisional theoretical relationships (Edmondson & McManus, 2007). Intermediate theory describes a state in which enough is known to suggest hypotheses, but not enough is known to test these hypotheses with numbers alone.

When theory is at an intermediate state of development, Edmondson and McManus (2007) suggest to use a "hybrid design" that combines qualitative and quantitative methods. By doing so, a study can both test hypotheses with quantitative data *and* allow openness to unexpected insights from qualitative data. In this state of theory development, using both qualitative and quantitative data increases the confidence that the researchers' explanations of the phenomena are more plausible than alternative explanations. The combination of qualitative data to elaborate a phenomenon and quantitative data to provide preliminary tests of relationships can promote both insight and rigor (Edmondson & McManus, 2007; Lee, Mitchell, & Sablynski, 1999; Yauch & Steudel, 2003). Edmonson and McManus (2007) argue that, in a state of intermediate theory, research designs using only quantitative or qualitative methods are likely to encounter problems. When only quantitative data is used, capturing new constructs lacks credibility when used without qualitative illustration and triangulation. When only qualitative data is used, on the other hand, the opportunity for preliminary statistical support for the hypotheses is lost, resulting in research products that are likely to be less compelling.

Similarly, the use of multiple research methods is central to engaged scholarship. Van de Ven and Johnson (2006) point to the importance of triangulation of methods to increase reliability and validity. Triangulation refers to a process by which the same

phenomenon is assessed with different methods to determine whether convergence arises across these methods (Edmondson & McManus, 2007; Jick, 1979; Yauch & Steudel, 2003). In order to triangulate, I have collected the quantitative and qualitative data at the same time, rather than sequentially[15].

Multiple cases

The focus of this dissertation is on the actions that front line leaders use to enforce quality and patient safety policies and the relation of these actions with health care professionals' motivation and compliance. As I explained in the context chapter (chapter 2), the accreditation system that has been introduced at UMC Utrecht includes a large number of different quality and patient safety policies (see section 2.4). Therefore, I have chosen to use specific policies as cases (or "vehicles") as a focus for that data collection (Miles & Huberman, 1994). Moreover, using specific cases allowed me to take the influence of the local context into account, contributing to the possibility of understanding underlying and non-obvious issues (Miles & Huberman, 1994).

Case studies are a research strategy aimed at understanding the dynamics within a single setting (Eisenhardt, 1989). In his classic work on case studies, Yin (2009) defines case studies as empirical enquiries that investigate a phenomenon within its real-life context. "A case" can refer to different things. Whereas case studies often focus on places or sites (Bryman, 1989), they can also focus on events, activities, or persons. Moreover, cases can be selected based on their relation to a theory or population (Haverland & Yanow, 2012). In this dissertation, my aim was to select quality and patient safety policies as cases that allowed me to learn more about my theoretical interest in *enforcement actions*[16]. As I showed in the context chapter (chapter 2), UMC Utrecht has two monitoring instruments: the balanced scorecard and tracers. I took these two main monitoring instruments as a starting point, since I expected that these cases would be the "most likely" cases for encountering enforcement actions. This expectation was based on the definition of bureaucratic control systems (see chapters 1 and 3), which implies that monitoring information is needed before managers can take enforcement actions. I will elaborate on the three cases that I have selected further in section 4.3.

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15 Other basic designs to combine qualitative and quantitative methods use qualitative data to guide the development of subsequent quantitative measures or collect qualitative data as a follow-up to better understand surprising quantitative findings (Edmondson & McManus, 2007). Although using both methods in sequence rather than simultaneously also has its advantages, it does not allow for triangulation, like using both methods at the same time does.

16 As a result, I cannot generalize my findings with regard to the implementation of all policies included in the accreditation. Rather, I aim to generalize my results with regard to situations where monitoring creates the possibility to take enforcement actions.

In sum, I used multiple methods and cases to investigate the propositions that were formulated in chapter 3. Below, I will introduce the three studies that I conducted.

4.3 THE THREE STUDIES INCLUDED IN THIS DISSERTATION

As I explained in the previous section, the overall design of my research was based on the use of multiple methods and multiple cases. Although this might suggest that both quantitative and qualitative methods were used in each case, it turned out that some cases were more suitable for a qualitative investigation, whereas others were more appropriate for a quantitative investigation. Moreover, in order not to overburden UMC Utrecht's health professionals with too many requests to participate in my research, I decided to use one main research method for each case.

Below, I will introduce the three studies that were conducted for this dissertation. I will discuss both the case and the main research method (qualitative or quantitative) used in each study. Moreover, I will reflect on the different actors that were relevant in each of these studies. More information about the cases and detailed methods and techniques can be found in the empirical chapters of this dissertation (Chapters 5, 6 and 7).

Study 1: Tracers

Tracers were chosen as a first case, since this is the most prominent "implementation instrument" used by UMC Utrecht. During a tracer, "tracer employees" (employees of UMC Utrecht) visit departments within the hospital to assess the quality and patient safety in these departments. The tracers have a double aim: they should enable a "professional dialogue" between tracer employees and health professionals working at the departments and provide an overview of the degree of compliance of these departments. Whereas the first aim indicates that the tracers could directly force health professionals working in the departments to comply, the second aim points towards a monitoring role for the tracers (as input for enforcement actions by the front line leader). In chapter 5, I will explicitly reflect on both of these goals based on the data that I have collected.

I focused on all quality and patient safety policies included in this specific round of tracers[17]. The main reason for doing so is that I expected that different policies would be relevant in each tracer (depending on the non-compliance of departments). By focusing on specific policies in advance, I would probably have had to exclude the tracers that did not consider the specific policies of my interest. Moreover, including more policies al-

17 Each "round" of tracers can include different policies. Whereas the most important policies – focusing on the international patient safety goals (see chapter 2) – are included in each round, other policies are included based on the UMC Utrecht's implementation priorities.

lowed me to obtain a more "overall picture" of enforcement on the accreditation system as a whole (rather than only specific policies within this whole).

Regardless of whether tracers are a case of direct enforcement or a case of monitoring input, they are a unique opportunity to investigate enforcement actions by both tracer employees and front line leaders (following the tracer's monitoring input). To best capture and explore these different enforcement situations and actors, qualitative methods were considered most suitable.

Study 2: Quality balanced scorecard

The second instrument that plays an important role in the implementation strategy of UMC Utrecht is the quality balanced scorecard. The quality balanced scorecard is used to monitor the level of compliance of departments on key indicators of quality and patient safety. Key indicators include – but are not limited to – the international patient safety goals, continuity of care, and medication safety. The results of the quality balanced scorecard are communicated with the division management and with the front line leaders.

Since "compliant behavior" needs to be defined and operationalized (Parker & Nielsen, 2009b), I chose one specific policy from the balanced scorecard, since this allowed for the specification of compliant behavior based on the policy. Following the main research interest of UMC Utrecht, I chose to focus on physicians in the second case. From a closer study of the balanced scorecard and discussions with practitioners from the quality and patient safety department, it turned out that most items were related to nurses' compliance and one item was related to physicians' compliance[18]. The "physician item" concerned the "most responsible physician" policy. The most responsible physician should coordinate the care of a patient (this includes, for example, overseeing the totality of care provided) and is the central point of contact for the patient (see chapter 6 for more information about the policy).

For this case, I used quantitative data to test the relation between enforcement actions, motivation and compliant behavior. During data collection, I focused on medical specialists.

Study 3: Electronic patient file

Based on my flexible research approach (see section 4.1), the choice of the case and research method of the third study was based on the results of the first two studies. First, with regard to the case, the results of the first study indicated that the electronic patient

18 This was the situation when designing the study in the spring of 2015. Since the data collection, the balanced scorecard has been optimized and renewed. As a result, it now includes more items that refer to physicians' compliance.

file is often used as an additional monitoring instrument. Therefore, I included a policy that is related to registration in the patient file as a third case.

Within the quality and patient safety policies that are related to the patient file, I chose the "treatment goal" policy to accurately assess compliance. According to this policy, each patient should have a personal care plan with measurable goals (see chapter 7 for more information about the policy). I chose the treatment goal policy since it was a newly introduced policy. I considered this important, since many policies that need to be registered in the patient file are so central to physicians' working methods (such as the patient history and diagnosis) that they are part of the socialization of physicians during their education, rather than part of enforcement by the hospital. To find newly introduced policies, I used information from different practitioners (the director of the quality and patient safety department and the physician responsible for the patient file standardization project) and policy documents (policies central to the quality and patient safety department's efforts and the project on patient file standardization).

Since the results from the first two empirical studies indicated that there was much more to learn about the enforcement actions by the front line leaders and the relation of these actions to health professionals' motivation and compliance, I decided to collect data using qualitative methods. The data collection focused on physicians and their front line leaders. Moreover, since the results from the study on the tracers indicated that leaders at the division level could also play a role in the enforcement process, I also included medical managers in the third study.

Summary

In sum, the research design used in this thesis is based on a combination of multiple methods (qualitative and quantitative) and multiple cases (tracers, the balanced scorecard and the electronic patient file). The cases and methods used in each of the three studies are summarized in Table 4. In addition, the central actors in each case are also included.

Table 4: Summary of the three studies included in this dissertation

Study	Case	Methods	Actors
1	Tracers (Several policies)	Qualitative	• Tracer employees • Front line leaders*
2	Balanced Scorecard (Most responsible physician)	Quantitative	• Medical specialists
3	Electronic Patient File (Treatment goals)	Qualitative	• Medical specialists • Medical department heads • Medical managers

* In chapter 5, I will provide more information about the specific front line leaders that were included as respondents in this chapter.

4.4 CONCLUSION

In this chapter, I first introduced the engaged scholarship approach that is central to this dissertation. Central to the engaged scholarship approach was the collaboration with practitioners from UMC Utrecht and the use of "practical knowledge" from UMC Utrecht throughout the research process. In addition to explaining the theory about the engaged scholarship method, I also introduced the design and process of the engaged scholarship approach that I used for this dissertation. After introducing the engaged scholarship approach, I elaborated on the main features of the research design: using multiple methods and multiple cases.

I collected three sets of data for the three studies that are included in this dissertation. Based on my overall research design, each of these studies was based on a different case, research method and actors. What the studies have in common is that they all investigated the same overall research question and conceptual model. More detailed information about the methods and techniques that were used to collect data for each of these three studies can be found in the empirical chapters (chapters 5, 6 and 7).

Chapter 5

Double enforcement: enforcement of and by nurse team leaders[19]

19 This chapter is based on Weske, U., Boselie, P., van Rensen, E.L.J., & Schneider, M.M.E. (2018b). Using regulatory enforcement theory to explain compliance with quality and patient safety regulations: the case of internal audits. *BMC Health Services Research*, 18:62. This chapter follows the main theme of the published article, but has been extended in order to allow for the inclusion of more nuances and details from the qualitative data.

In this first empirical chapter, I will use qualitative data for a focused exploration of enforcement actions that are used in the organizational context and whether and how these actions are related to compliance. I used UMC Utrecht's main implementation instrument – the tracers (see chapter 2) – as a case. During a tracer, employees of UMC Utrecht ("tracer employees") visit departments to investigate the level of compliance with the quality and patient safety policies and to have a "professional dialogue" about quality and patient safety with the health professionals working in the department.

This chapter is organized as follows. In section 5.1, I will discuss the theoretical and methodological background of this chapter. In section 5.2, I will set the stage by describing the case that is central to this chapter. In sections 5.3 to 5.6, I will introduce the main results regarding the enforcement actions that are used, and whether and how these actions are related to compliance. Finally, in section 5.7, I will summarize the main findings of this chapter.

5.1 BACKGROUND

In this background section, I will briefly introduce the relevant theoretical insights that have been central to this chapter and I will provide information about the research methods that I used to collect and analyze the data for this chapter.

Theory

As I showed in the theoretical framework (chapter 3), the focus of this dissertation is on the effective implementation of a bureaucratic control system. Such systems emphasize the formulation, monitoring and enforcement of rules (Daft & MacIntosh, 1984; Sitkin et al., 2010b). Within bureaucratic systems, my focus is on differences in enactment of bureaucratic control systems. The starting point of this dissertation was that front line managers can use different actions to enforce the rules of a bureaucratic system. To conceptualize these different approaches to enforcement, I used insights from the field of regulatory enforcement (Parker & Nielsen, 2011).

Within the regulatory enforcement literature, two ideal typical enforcement styles are at the basis of most research (Gormley, 1998; Hutter, 1989; Mascini & Van Wijk, 2009; May & Wood, 2003; Mikkelsen et al., 2017; Reiss, 1984; Shover et al., 1984): persuasion and punishment. Persuasion focuses on persuading non-compliant individuals to improve their performance and includes actions such as persuasion, negotiation and education. Punishment, on the other hand, focuses on detecting, threatening and punishing non-compliance. Based on studies by Mikkelsen and colleagues (Mikkelsen et al., 2017; Mikkelsen, 2015), I expect that these insights from the regulatory enforcement literature can

be applied to study actions that front line managers use to enforce quality and patient safety policies in a hospital context.

The focus of this dissertation is whether these enforcement actions are related to motivation and compliance. Based on the definitions that I provided in the theoretical framework (chapter 3), I distinguish two types of motivation: intrinsic (doing something because the activity itself is interesting) and extrinsic (doing something because the action leads to a separable outcome) (Ryan & Deci, 2000). In addition, I define compliance as acting in line with explicit requirements of quality and patient safety policies.

In the theoretical framework (chapter 3), I formulated two central propositions that link the persuasive and punitive enforcement styles to different compliance via the two different types of motivation. First, I expect that persuasive enforcement actions are related to compliance via intrinsic motivation (proposition 1). This proposition is based on the argument that persuasive actions support individuals' need for self-determination, and as a result, they contribute to intrinsic motivation (Mikkelsen et al., 2017). Intrinsic motivation, in turn, has been related to compliance (Nielsen & Parker, 2012). Second, I expect that punitive enforcement actions are related to compliance via extrinsic motivation (proposition 2). This proposition is based on the argument that punishment (or threats thereof) result in a shift to external motivation because individuals view their actions as being caused by punishment (Ayres & Braithwaite, 1992). Extrinsic motivation, in turn, has been related to compliance as well (Nielsen & Parker, 2012). In sum, I expect that both enforcement styles are related to compliance via different motivational routes.

Methods

The engaged scholarship approach used in this dissertation (see chapter 4 for more information) played a significant role in the design and analysis of this study. During the research design, data collection and data analysis, I was engaged in an ongoing dialogue with the quality and patient safety department employee responsible for the tracers. I will explicitly reflect upon the "practical knowledge" from this dialogue in the different sections below.

Case

The case that is central to this chapter is UMC Utrecht's main implementation instrument, the tracers. According to the tracers policy document, "tracer employees" (employees from UMC Utrecht) visit departments in the hospital with the double goal of engaging in professional dialogue with health professionals working in these departments about the importance of quality and patient safety *and* investigating the level of compliance with quality and patient safety policies in the department.

Based on several conversations with the practitioner from the quality and patient safety department, I initially assumed that the tracers were primarily a case of profes-

sional dialogue between the tracer employees and the health professionals working in the department. As a result, I started the data collection with this notion of the tracers as "*direct" enforcement* of health professionals by the tracer employees. In terms of my theoretical focus, this view of the tracer suggested that the tracer was an interesting case to investigate the enforcement actions by tracer employees (rather than front line leaders) and the resulting motivation and compliance of health professionals working in the departments.

However, based on my initial data collection, it became clear that the tracer employees did not engage in a professional dialogue with health professionals working in departments. Rather, the tracer employees engaged in a dialogue with the front line leader of the department. Moreover, the initial data indicated that – based on the tracer outcome – the front line leaders took enforcement actions to ensure compliance of the health professionals working in their department. Therefore, the tracers are a case of *"double" enforcement*: tracer employees force the front line leaders, and front line leaders force the health professionals working in their department. Due to the flexibility that is part of the engaged scholarship approach, I have included this "double enforcement" in the data collection and analysis in this chapter.

Procedure and sample

During the data collection period (February – May 2015), 62 tracers were conducted by a group of 64 tracer employees. I participated in 16 randomly selected tracers to observe the enforcement actions by the tracer employees. My observations of these tracers can be characterized as non-participatory, since I observed the tracer employees rather than acting as a third tracer employee myself. During the observations, I made field notes about the process of the tracer and the enforcement actions by the tracer employees.

In addition to my observations of tracer employees, I conducted interviews with relevant actors. First, I conducted interviews with 23 of the 30[20] tracer employees that I observed. Five of the observed tracer employees were not interviewed since they had just started as a tracer employee, and two were not willing to participate in an interview. Second, related to my initial starting point of tracers as "direct" enforcement of health professionals, I conducted five interviews with the health professionals that the tracer employees had an interaction with during the tracer. However, based on my first observations and interviews with these health professionals, it turned out that they were not the relevant actors to include in the interviews. Based on my observation that the tracer was aimed at forcing front line leaders to comply, I decided to include the department's front line leaders as respondents. Since two front line leaders did not respond to my

20 I observed two tracers that were conducted by the same two tracer employees, leading to a total of 30 (rather than 32) observed tracer employees.

invitation to participate in the study, I conducted interviews with 14 (of the 16 observed) front line leaders. Interviews lasted between 30 minutes and one hour and were tape-recorded and transcribed verbatim (Braun & Clarke, 2006).

In sum, I collected data by means of 16 observations and 37 interviews (23 tracer employees and 14 front line leaders).

Topics

The interviews were semi-structured and guided by a topic list (the complete topic lists can be found in appendix I). Interviews with the tracer employees focused on their background (including their function in the hospital and their experience as a tracer employee), the enforcement approach used (their general approach and their approach in the observed tracer, thereby focusing on both persuasive and punishment actions) and their reasons for using a specific enforcement approach.

Interviews with front line leaders focused on their background (including their function in the hospital and their previous experiences with tracers), how they had perceived the tracer (including a general question about their perception of the specific tracer and specific questions about both enforcement approaches), and what specific enforcement actions they took or intended to take based on the specific tracer results (thereby focusing on both persuasive and punitive enforcement actions). Since some front line leaders indicated that they would take enforcement actions, whereas others did not, I added a question on their reasons for taking (or not taking) actions based on the tracer outcome.

Data analysis

To analyze the data, I used the framework method (Gale, Heath, Cameron, Rashid, & Redwood, 2013; Moullin, Sabater-Hernández, & Benrimoj, 2016). The framework method is a systematic method that allows for assessment of the data across both cases and themes. The first step was familiarization with the data by reading the full observation reports and interview transcripts. In addition, I coded some interviews open to ensure that important aspects of the data were not missed. After familiarization with the data, I followed two steps of analysis that are central to the framework method. In the first step, I created a framework of central themes and subthemes based on my central theoretical concepts. These themes included tracer employees' enforcement actions (with types of actions as subthemes), front line leaders' (intended) enforcement actions based on the tracers (with types of actions as subthemes) and their reasons for taking actions. In the second step, I generated a matrix (Miles & Huberman, 1994) that summarized these themes and subthemes for each department. This matrix grouped together the data collected from all actors that were involved in a particular tracer. This means that for each tracer, the matrix displayed the (intended) enforcement actions by the tracer employees and front line leaders and their reasons for these actions.

Results included in this chapter

Based on the themes that were coded in the analysis, the results presented in this chapter consist of three main sections: the enforcement actions by the tracer employees (section 5.3), the compliance of front line leaders (section 5.4), and the reasons for front line leaders' compliance (section 5.5). Moreover, since the tracers are a case of "double enforcement" (see the section on "case"), I will describe the enforcement actions by the front line leaders in section 5.6. Before discussing these four main sections, I will first set the stage by describing the tracers.

5.2 SETTING THE STAGE: INTRODUCING THE TRACERS

In this section, I will introduce the tracers. I will do so by first describing the tracer process and then pointing out some important characteristics of the tracers (including the setting, the policies included in the tracer, and the background of the tracer employees).

The tracer process

Most tracers that I observed proceeded as follows. Since the front line leaders were not notified about a tracer in advance, the tracer employees started a tracer with an announcement to the front line leader that the ward was going to be traced. Next, the tracer employees used observations and interviews with health professionals (mostly nurses) and patients, combined with information from patient files and documents, to collect information about the department's compliance with quality and patient safety policies. Based on the information they collected, the tracer employees compiled a report in which they scored whether departments were compliant (green score) or non-compliant (orange or red score) on the separate quality and patient safety policies. Finally, the tracer employees provided feedback about the results to the team leaders of the nurses. In Text box 2, I have added a description of one tracer to illustrate the tracer process.

The setting: inpatient departments

All tracers – except for one – were conducted at inpatient departments (from now on referred to as "wards") within different divisions of UMC Utrecht (see chapter 2 for an explanation about the different departments and divisions of UMC Utrecht). At wards, nurses provide care to inpatients (patients admitted to the hospital). The team leader of the nurses often has his or her office at the ward. During certain moments of the day – for example during patient rounds – physicians visit the wards to see "their" patients. Outside of these moments, physicians are often not present at the ward. Moreover, the front line leader of the physicians, the medical department head, does not have an office at the ward. As a result of this setting, the tracer employees did not encounter the medical department head during the tracers.

Text box 2: Description of a tracer

The tracer employees – two senior quality advisors from different divisions – meet at the quality and patient safety department. Here, they pick up the iPad that includes the policies that are central to this tracer round and that allows them to register the compliance of the department they are tracing. The tracer employees briefly sit down to discuss their focus of the tracer: policies that the department was not complying with in the previous tracer. After discussing the strategy, I follow the tracer employees to the inpatient department they have to trace. At the department, they announce themselves to the team leader (the front line leader of the nurses). They explain that they want to conduct an – unannounced – tracer at the department.

Using the policies in the iPad as a starting point, the tracer employees start collecting information to check the department's compliance. Since most nurses are on their lunch break, the tracer employees start by checking policies that they can observe themselves; these include policies related to the storage of medication and medical equipment. After doing so, the tracer employees ask a nurse to show them some items in the patient file; what the goals of admitting a patient are and where the pain score and fall screening can be found in the patient file. They also ask the nurse about some items that are not related to the patient file, such as how and when to identify patients and when to call the Emergency Intervention Team. After these questions, the tracer employees ask the nurse for a patient they can speak to about his or her stay at the department. After speaking to the patient, the tracer employees try to find a physician to speak to. Whilst waiting for the physician to arrive, they ask another nurse some questions about communication and patient handovers. When the physician arrives, they ask him a range of questions, including whether he formulates treatment goals for his patients and whether he registers allergies in the patient file. After having collected all the information, the tracer employees sit down just outside the department to fill in the tracer report in the iPad.

After completing the report, the tracer employees return to the team leader to discuss their findings. They compliment the team leader on the inviting atmosphere and the tidiness of the department. After doing so, they tell the team leader that they have two major points for improvement: the communication protocol and the Emergency Intervention Team. The tracer employees then continue to point out some "finishing touches": they explain that they did not see a translation of treatment goals and handover to the nursing discipline. They note that this is also a problem in many other departments and they explain that there will be more attention for it at UMC Utrecht as a whole. The tracer employees emphasize that these points for improvement are meant as a support for the team leader. They also give the team leader the tip when to register "not applicable" in the pain screening, in order to reach a higher level of compliance. The tracer employees conclude with a compliment from the patient for the nurses and refer the team leader to the tracer report for all outcomes of the tracer.

After providing feedback to the team leader, the tracer employees return to the quality and patient safety department to fill in the last items in the tracer report and to return the iPad. Three hours have passed since they started the tracer and they go back to their own department to continue their regular employment activities.

The quality and patient safety policies included in the tracer

The tracers investigate the compliance of wards on a wide variety of quality and patient safety policies, ranging from assessment of patients to medication management and use. One important issue during a tracer is the question which actor is responsible for compliance with which policies. Whereas most of the quality and patient safety rules apply to both physicians and nurses (for example rules regarding hand hygiene), others mainly apply to nurses (for example policies regarding medication use) or physicians (for example policies regarding patient treatment plans). Table 5 provides an overview of the items included in the tracers and the actors that are responsible for these items. The table shows the category of JCI standards (see chapter 2 for an explanation of the

categories included in the JCI accreditation), examples of standards included in the category and the actors that are responsible for complying with the category of standards at UMC Utrecht.

Table 5: Policies included in tracers

Category of policies	Examples of policies	Responsible actor
International patient safety goals (IPSG)	Patient identification, fall risk screening, infection prevention	Physicians + nurses
Access to care and continuity of care	Discharge and transfer of patients, complete patient file	Physicians + nurses
Patient and family rights	Informed consent, informing patients about procedures	Physicians
Assessment of patients	Registration of allergies, patient history	Physicians
Care of patients	Treatment plan, emergency intervention team	Physicians + nurses
Medication management and use	High-risk medication, preparing and administering medication	Nurses
Quality improvement and patient safety	Analysis and follow-up of adverse events	Physicians + nurses
Prevention and control of infections	Patient isolation, basic hygiene, clean surrounding	Nurses
Staff qualifications and education	Introduction program for new employees, reanimation training	Physicians + nurses

The tracer employees

Tracers are executed by changing couples consisting of two of UMC Utrecht's own employees. All tracer employees have received a training before starting as a tracer employee. During this training, the tracer employees receive information about the content of the tracer: the JCI accreditation system and the specific hospital quality and patient safety policies. Moreover, the tracer employees learn about the process of a tracer: how to introduce themselves at the ward, how to collect information, and how to give feedback to the wards that are traced.

The 30 tracer employees that conducted the 16 tracers that I observed had different backgrounds: twelve tracer employees were nurses (or nurse managers/paramedic professionals) or physicians, eight tracer employees usually worked with quality and patient safety policies (such as policy advisors), and ten tracer employees had "other functions" (including supportive functions such as ICT, finances, patient contacts and facility management). What stands out is that – except for three tracers – all tracer couples included one health professional (either a physician or a nurse). The other three tracers were conducted by a tracer couple that included at least one highly experienced quality and patient safety policy advisor.

Now that I have set the stage by describing the tracers, I will turn towards the description of the enforcement actions used by the tracer employees.

5.3 TRACER EMPLOYEES' ENFORCEMENT ACTIONS

All tracer employees indicated that they see it as their main aim to support the team leaders by providing a complete and accurate overview of improvement points of the ward. The tracer employees argued that the tracers support the team leader, since it helps team leaders to get a feel for the points they should improve on.

"*The audits that I usually do have the aim of assessing, and the tracer is aimed at supporting wards to improve their quality. That you are holding up a mirror to them, showing them what stands out from our perspective, what they could improve on.*" (Tracer employee 3, physician)

Tracer employees used enforcement actions during their discussion with the team leader at the end of the tracer (see Text box 2 for an illustration). In all observed tracers, the tracer employees used a similar combination of actions in which they pointed out the items that the ward needed to improve compliance on and – when possible – provided the team leader with information (about the content of and/or rationale behind policies) and tips and/or suggestions on how to deal with or implement policies (for example based on what they had seen at their own or other wards). All tracer employees used these actions in their interaction with the team leaders. Two descriptions of the enforcement actions by tracer employees are provided below:

The tracer employees noted that there were too many supplies in the patient rooms and that this could be problematic since it is difficult to check the supplies there. The tracer employees then continued to provide suggestions, such as improving the process of scanning and ordering the supplies, and gave an example of another ward that had an inventive system to store their supplies. (Observation, tracer 3)

One of the tracer employees argued that he understood the difficulty of the policy of patient identification. He explained that the essence of the policy is the identification of patients associated with high-risk actions, such as the provision of certain medications. It is important to make the patient check a ritual at these moments, in order to not make mistakes. (Observation, tracer 9)

All tracer employees indicated that they were not in a position to threaten sanctions, since they have no authority over the team leaders. As a result, the tracer employees can only point out non-compliance to the team leaders, but they cannot tie consequences to the non-compliance they encounter. As the two quotes below indicate, this leads to a

situation where it is up to the team leaders to take action regarding the non-compliance in their department.

"*And then you hope that everyone takes a look at the dashboard, because that contains a lot of usable information. But there are also people of course that don't really care, that also happens […]. Ultimately, you want an explanation, because now it is very non-committal. And that happens with more processes in a department, that people get away with it, but we are not improving.*" (Tracer employee 15, nurse)

"*Of course, there is a substantial initiative on the part of the team leader on how to deal with improvements. That is the responsibility of the department itself.*" (Tracer employee 28, other)

In sum, all tracer employees use similar enforcement actions: providing an overview of the wards' degree of compliance with quality and patient safety policies and supporting the team leaders with information about the content and rationale behind quality and patient safety policies, and tips and suggestions on how to comply with the policies. This finding leads to the question whether the overall persuasive enforcement actions by tracer employees also lead to overall similar actions by ward leaders? Below, I will present my findings about whether the enforcement actions used by the tracer employees contributed to ensuring the compliance of team leaders.

5.4 TEAM LEADERS' COMPLIANCE[21]

Rather than being compliant with quality and patient safety policies themselves, compliance of team leaders implies that they take action to ensure future compliance of the nurses working at their ward. From the interviews with team leaders, it turned out that there is a clear difference between team leaders that argue that they take action based on the tracers and team leaders that do not.

Seven team leaders indicated that they took action (or had the intention to do so) to increase nurses' compliance with quality and patient safety policies (see section 5.6 for a description of these actions). It needs to be noted that these seven team leaders did

21 The sections on team leaders are based on information from interviews with eleven (of the fourteen) team leaders. One team leader was not included, since he had no relevant improvement points (the results of the tracer focused on inpatient department items, while the department did not treat inpatients). Two team leaders were not included because their colleagues were responsible for taking actions to ensure compliance. Unfortunately, these colleagues did not respond to my invitation for an interview.

not take action on *all* outcomes of the tracer. As the team leaders explained, not all outcomes of the tracers were representative (for example when the tracer employees spoke to a new nurse or arrived when it was very hectic at the ward) or correctly scored (for example when the tracer employees made a wrong judgment of the situation). Below, I have included two of the examples that team leaders mentioned:

"Look, if 90% does well and you meet someone who did not do well, or there is a box in the hallway because there is no room for it in the storage[22] *– when you know that for most of the time there are no boxes or nurses do know how things work, then it is not our priority to work on these issues because you know it might be OK after all."* (Team leader 9)

"Linked to the medicine room were the opiates. They could not see the date check properly, but we did check it, they had that wrong." (Team leader 12)

Moreover, all team leaders indicated that they were not able to take actions that are "physician items" (see section 5.2) since the team leaders do not have the authority to address non-compliance of physicians. As a result, they cannot take actions to improve the compliance of physicians. As one of the team leaders explained, she could only notify the physicians about their non-compliance:

"*I tell the physician, but it is their responsibility to act upon it. And sometimes that is difficult because we get a red score. We expect that they act upon these scores, but they have to take care of it.*" (Team leader 9)

I also encountered a "non-compliant" group of four team leaders did not act *at all* upon the tracer outcomes. Within this group, three of the four team leaders did not look at the results and one team leader – who had only recently started her ad interim function – did not know how to retrieve the tracer outcomes. This is clearly illustrated by the following quote of one of the team leaders:

"*Well, I didn't look at the results, to be honest, so I don't even know. But I remember it was not impressive […]. I did not communicate the results to the nurses. Which speaks for itself, I guess. I am not saying it is okay, but that is how I am, oh well…*" (Team leader 4)

So far, the findings indicate that the overall catalytic enforcement actions by the tracer employees can be linked to the compliance of about two-thirds of the ward leaders. This leads to the question why ward leaders react differently to similar enforcement actions

22 For reasons of fire safety, it is not allowed to put boxes in the hallway.

by auditors. Below, I present my findings regarding the reasons why most team leaders take actions based on the tracers, whereas some do not.

5.5 EXPLAINING DIFFERENCES IN TEAM LEADERS' COMPLIANCE

Two issues stand out with regard to the question why team leaders take enforcement actions or not: the role of the "big stick" and team leaders' motivation.

The team leader's manager as "the big stick"

When describing the enforcement actions used by the tracer employees, it stood out that the tracers do not have a direct consequence for team leaders. This is explained by the fact that the tracer employees do not aspire to and are not in a position of authority that allows them to punish team leaders (or threaten to do so). As a result, several team leaders felt no obligation as a result of the tracers to ensure future compliance of the nurses working at their ward.

Whereas the tracers in itself do not have a direct consequence, they do have an indirect consequence for some team leaders. Based on the tracer report that is published on UMC Utrecht's intranet, some care managers (the managers of the team leaders, see chapter 2) act upon the outcome of the tracers to ensure compliance of the team leaders. This indicates that, in some cases, the team leaders are forced to comply by their managers. In these cases, the care managers provide a backstop – or the possibility of consequences – to the tracers. Two team leaders explained the role of their care manager:

"Because our manager also pays attention to it, we have a certain interest in it as well. But if your manager is not paying attention to it, nothing happens." (Team leader 15)

"*Of course it's something you discuss with your manager. It is not that you will get fired, but it is clear that five green scores are better than five red scores."* (Team leader 5)

In six departments, the team leaders explicitly mentioned that their manager did not take actions based on the tracer outcomes. In these departments, there is therefore no "big stick" to back up the persuasive actions by the tracer employees. As one of the team leaders argued, her manager considered the follow-up on the tracer outcomes the responsibility of the team leader:

"*My manager does not look up the results in the dashboard and then tells me that certain issues are not going well. She has delegated these tasks to me and my colleague as team leaders and she expects that if issues arise, that we act upon them.*" (Team leader 12)

What stands out is that the team leaders that indicated that their manager took enforcement actions also took actions based on the tracer outcome. Moreover, of the team leaders that argued that their manager took no actions, three did act upon the tracer and three did not. This suggests that enforcement actions by managers are important, but not decisive. Below, I will present the findings on the role of team leaders' motivation to comply.

Motivation to comply

In addition to enforcement by the manager, the difference in motivation between the team leaders that took enforcement action and the team leaders that did not take action stands out. Six of the team leaders that took action based on the tracer either did so because they wanted to or because they had to. Four team leaders that took action based on the tracer indicated that they took action because they found the quality of care important. In addition, two team leaders indicated that they took action because they had to. Below, I have provided an example of a team leader that took action because she wanted to, and an example of a team leader that took action because she had to:

"It concerns patient safety. For example if your own mother were a patient in this hospital, you would also want her to get the right medication. Or if she were unconscious, that people would know who she is. That is obvious." (Team leader 9)

"And that is a given, it has to be registered and it has to be evaluated. Whether I agree with it or not, whether my employees agree with it or not, we have to do it." (Team leader 11)

By contrast, the four team leaders that did not take action based on the tracers perceived the accreditation mainly as additional bureaucratic pressures that did not contribute to the quality of care that is delivered by the ward. These team leaders generally had a low level of motivation to take action to implement quality and patient safety policies at their ward.

What stands out is that this difference in motivation of team leaders was not the result of the specific tracer, but it was the motivation that team leaders already had. Team leaders that were motivated towards the accreditation and its quality and patient safety policies saw the tracers as input for the work they were already doing to implement the policies at their ward. Team leaders that were not motivated, on the other hand,

did not change this low level of motivation as a result of the tracer. Consequently, the unmotivated team leaders took action neither before nor after the tracer.

In Table 6, I have summarized the findings about team leaders' compliance and the reasons explaining their differences in compliance (enforcement actions taken by the care manager and team leaders' motivation). Several situations can be discerned in this table[23]. First, team leaders that were not forced by the manager at the division level and that were not motivated did not take enforcement action (team leaders 1, 4, 7 and 13). Second, team leaders that were forced by their manager at the division level and that were motivated – either intrinsic or extrinsic – indicated that they took enforcement action (team leaders 5 and 15). Third, team leaders that were motivated, but not forced by their manager, indicated that they took enforcement action (team leaders 10 and 12). I did not find a situation where team leaders were forced by their manager, but not motivated. In sum, these results indicate that only team leaders that are motivated – or motivated and forced – take actions based on the tracer outcomes.

Table 6: Overview of factors that explain team leaders' actions

Team leader	Forced by care manager?	Motivated?	Actions?
1	No	Low	No
2	Yes	(not mentioned)	Yes
4	No	Low	No
5	Yes	Intrinsic	Yes
7	No	Low	No
9	(not mentioned)	Intrinsic	Yes
10	No	Intrinsic	Yes
11	(not mentioned)	Extrinsic	Yes
12	No	Intrinsic	Yes
13	No	Low	No
15	Yes	Extrinsic	Yes

So far, I have considered actions taken by the team leaders based on the tracer outcome as an indication of team leader compliance. However, since these actions by team leaders are aimed at ensuring the compliance of their employees, they can be considered as enforcement actions as well. This implies that enforcement actions are situated at two "places": tracer employees force team leaders, and as a result of this enforcement, team leaders themselves force the nurses working at their ward. In the next section, I will elaborate on the enforcement actions used by the team leaders.

23 Three team leaders are not included in this summary, since I did not have insights on whether enforcement actions were used (N=2) or whether they were motivated (N=1).

5.6 TEAM LEADERS' ENFORCEMENT ACTIONS[24]

In this section, I will describe the enforcement actions that the team leaders indicated they used based on the outcomes of the tracer. These actions should not be generalized as regards all enforcement actions used by team leaders, since the team leaders themselves indicated that their actions partly depended on the improvement points of the tracers. An example of this includes whether the ward received a red score because one nurse did not remember a policy or the policy was new to UMC Utrecht and still had to be introduced to all nurses working at the ward.

Three team leaders indicated that they send around an email or discuss the tracer outcomes during a team meeting. In these meetings and messages, team leaders remind the nurses about the importance of certain policies and – depending on the topic – provide an explanation about what policies entail and how they should be used in the daily work at the ward. Below, I have provided two examples of team leaders that indicated that they used these actions:

"*And we have a meeting soon, and then there are a few of these issues on the agenda, such as the communication protocols, whether everyone knows what they are and what they stand for.*" (Team leader 15)

"So in this case, we sent an email to everyone: this is our system and that is how it should be done." (Team leader 12)

Two team leaders indicated that they confront their employees with their non-compliance. In one case, the team leader confronted all nurses working at the ward with the consequences of their non-compliance. In another case, the team leader indicated that the ward assistants responsible for non-compliance were spoken to. The team leader chose to do so because the non-compliance was clearly one of the ward assistants' tasks. Below, both situations are shown:

"*So then I go onto the ward myself and I throw out everything that does not have a sticker, and I also show the nurses all the things I need to throw out because they did not put a sticker on it.*" (Team leader 2)

24 The enforcement actions by team leaders are not included in the publication based on this chapter (Weske et al., 2018), since it would have made the publication too complex. However, since the "double enforcement" is relevant to the focus of my dissertation, I have included the enforcement actions by team leaders in this chapter. This section can therefore be seen as an addition to the article.

"Then I say, that sticker, that should be on there. Then I tell them, well girls, there was [patient food] in the fridge without a sticker with the date on it." (Team leader 10)

Two team leaders indicated that they let their senior nurses take care of the improvement. Most wards have senior nurses that are responsible for certain themes at the ward. Often, these themes include quality and patient safety issues. After a tracer, these senior nurses are responsible for taking action on the improvement points that arise from the tracer. As one of the team leaders explained:

"*Within the team, we have allocated all of the international patient safety goals to one of the senior nurses and the senior nurses often have two or three nurses linked to them that also work on the topic. Based on the tracer report, I look for the nurse that is responsible, explain the tracer outcomes, and ask her what she is going to do to improve compliance.*" (Team leader 11)

One of the team leaders that indicated that she let the senior nurse take care of the improvement also indicated that she worked with an "improvement board" at her ward. With this board, the ward continuously works on improving quality and patient safety issues. Based on the tracer outcome, the team leader adds points that need improvement to the "improvement board". Based on the tracer outcome, the ward needs to improve its compliance with the fall risk screening:

"*We use an "improvement board" with key performance indicators and there we add that point. Then for this week, the board says evaluate the fall risk on Tuesday and Friday. And on Tuesday and Friday we see how we did, whether it is green, whether it is orange – in the danger zone, or whether it is really bad.*" (Team leader 11)

In sum, team leaders used a variety of actions to enforce quality and patient safety policies at their ward.

5.7 CONCLUSION

The focus of this first empirical chapter was on exploring which actions were used to enforce quality and patient safety policies and whether and why these actions were related to compliance. For this exploration, I used UMC Utrecht's main implementation instrument – the tracers – as a case. Based on my engaged scholarship approach, it turned out that the tracers were a case of "double enforcement": tracer employees force the nurse team leaders, and team leaders force the nurses working in their department.

To explore this double enforcement, I observed 16 tracers and interviewed 23 tracer employees and 14 team leaders.

This chapter focused on describing enforcement actions by both tracer employees and team leaders. *Tracer employees* only used persuasive actions (such as explaining the rationale behind policies and providing tips and tricks on how to implement policies), since they were not in a position to punish team leaders (or threaten to do so). Most *team leaders* also indicated that they used persuasive actions, such as providing information and education, and involving nurses in the enforcement of quality and patient safety policies. In addition, some team leaders indicated that they took no enforcement action at all. These findings indicate that different enforcement actions are used, ranging from a variety of persuasive actions to no actions at all. Moreover, these findings imply that the accreditation system – a bureaucratic control system – is mainly enforced by means of persuasion rather than punishment. In sum, these two findings confirm the starting point of this dissertation that a bureaucratic control system can be enforced in different ways, including a non-punishing way that increases intrinsic rather than extrinsic motivation.

Whereas all tracer employees used similar – persuasive – enforcement actions, these were not related to the compliance of all team leaders (that is, team leaders taking actions to ensure compliance of the nurses working at their ward). As a result of this finding, I explored the question how these differences between team leaders' actions could be explained. Based on the observation that the tracer employees were not in a position to punish the team leaders (or threaten to do so), the tracer in itself did not have the possibility of consequences. As a result, I found that two other factors determined whether team leaders acted upon the tracer outcome. First, the results indicated that the motivation of team leaders to enforce quality and patient safety policies was an important explanation for their actions. This finding implies that team leader motivation plays a crucial role in the enforcement process. Second, the results indicated that some team leaders were forced by their own manager (the care manager at the division level). In these cases, the manager provided a "big stick" – that is, the possibilities of consequences – for the tracer. This finding implies that enforcement actions at all levels of the hierarchy are important to ensure compliance of health professionals.

In this first empirical chapter, I used qualitative data to explore enforcement actions and reasons for these enforcement actions. In the next empirical chapter, I will present the results of the quantitative investigation of the relation between enforcement actions, and physician motivation and compliance.

Chapter 6

Linking enforcement approaches with physicians' motivation and compliance[25]

25 This chapter is based on Weske, U., Boselie, P., van Rensen, E.L.J., & Schneider, M.M.E. (2018a). Physician compliance with quality and patient safety regulations: The role of perceived enforcement approaches and commitment. *Health Services Management Review.* DOI: 10.1177/0951484818813324. This chapter follows the main theme of the published article, but has been altered in order to allow for the inclusion of more nuances and details arising from the engaged scholarship approach.

In the first empirical chapter (chapter 5), I used qualitative data to explore the enforcement actions that were used in the hospital context. For this second empirical chapter, my aim was to investigate whether enforcement actions matter for motivation and compliance. I did so by quantitatively testing whether persuasive and punitive enforcement actions were related to physician motivation and compliance. I investigated both the direct relation between the two enforcement approaches and compliance, and the indirect relation (via intrinsic and extrinsic motivation).

This chapter is organized as follows. In section 6.1, I will first present the background to this chapter. In this section, I will introduce the hypotheses and the methods that were used for this chapter. In section 6.2, the descriptive statistics of the variables that are central to this chapter are presented. In section 6.3, the relations between perceived enforcement and compliance are tested. Finally, in section 6.4, the chapter finishes with a conclusion.

6.1 BACKGROUND

Before presenting the empirical results, I will first introduce the hypotheses and the conceptual model that were tested for this chapter. In addition, I will present the research methods and techniques that were used to test the hypotheses.

Theory

In this dissertation, my focus is on different actions that are used to enforce the rules of a bureaucratic system (see chapters 1 and 3). Based on insights from the field of regulatory enforcement (Gormley, 1998; Hutter, 1989; Mascini & Van Wijk, 2009; May & Wood, 2003; Mikkelsen et al., 2017; Reiss, 1984; Shover et al., 1984), I have distinguished two enforcement styles: persuasion (persuading actors to comply) and punishment (threatening and punishing non-compliance). The starting point of this dissertation is that these insights from the regulatory enforcement literature can be used to study the enforcement actions used by front line managers to enforce quality and patient safety policies.

In the theoretical framework (chapter 3), I related the persuasive and punitive enforcement styles to different types of motivation and compliance. I considered both intrinsic motivation (doing something because the activity itself is interesting) and extrinsic motivation (doing something because the actions leads to a separable outcome) (Ryan & Deci, 2000). Moreover, I defined compliance as acting in line with explicit requirements of quality and patient safety policies. I formulated two propositions about how these enforcement styles are related to different types of motivation and compliance. First, I expect that a persuasive enforcement style supports the need for self-determination

and is therefore related to compliance via intrinsic motivation (Mikkelsen et al., 2017). Second, I expect that a punitive enforcement style inhibits internalization and is therefore related to compliance via extrinsic motivation (Ayres & Braithwaite, 1992). The more general propositions formulated in the theoretical framework imply a mediation effect of motivation in the relation between enforcement styles and compliance. In order to quantitatively test for this mediation effect, I translated the two more general propositions into four hypotheses. Below, I will introduce the four hypotheses that are central to this chapter.

First, by providing individuals with information and assistance, a persuasive enforcement style contributes to compliance by increasing individuals' understanding of how to comply and their capacity to comply (May, 2005; May & Winter, 1999). Therefore, I expect that:

Hypothesis 1: A persuasive enforcement style has a positive relationship with compliance

Second, I expect that a persuasive enforcement style is related to intrinsic motivation since it supports individuals' need for self-determination (Mikkelsen et al., 2017). Intrinsic motivation, in turn, is expected to be related to compliance (Nielsen & Parker, 2012). Based on this role of intrinsic motivation, I expect that:

Hypothesis 2: The relation between a persuasive enforcement style and compliance is mediated by intrinsic motivation

Third, I expect a direct relation between a punishment approach and compliance because punishment (or threats thereof) increases the fear of the consequences of being found in violation, and as a result, compliance (May & Winter, 1999; OECD, 2000). Therefore, I expect that:

Hypothesis 3: A punitive enforcement style has a positive relationship with compliance

Fourth, a punishment approach is expected to contribute to extrinsic motivation, since it tries to change behavior by involuntary means, resulting in a shift to extrinsic motivation (Ayres & Braithwaite, 1992; Mikkelsen, 2015). Extrinsic motivation, in turn, has been related to compliance (Nielsen & Parker, 2012). As a result, I expect that:

Hypothesis 4: The relation between a punitive enforcement style and compliance is mediated by extrinsic motivation

These four hypotheses are summarized in Figure 6[26].

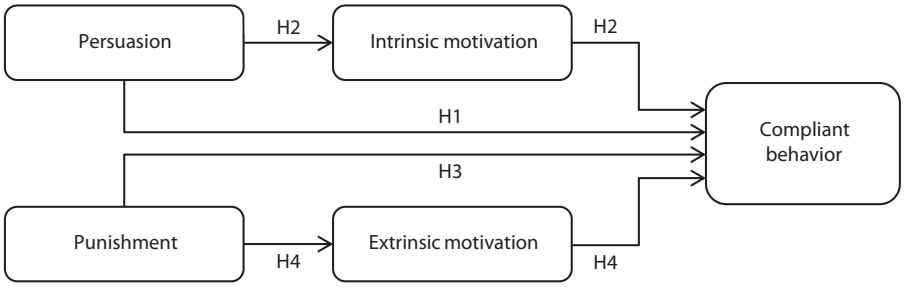

Figure 6: Conceptual model
Note: All expected relations are positive.

Methods

In line with the engaged scholarship approach that is central to this thesis (see chapter 4), I used an engaged scholarship approach for the data collection and analysis in this chapter. As I explained in the methods chapter (chapter 4), several discussions with the core research team and colleagues from the quality and patient safety department contributed to the choice for a quality and patient safety policy that was used as a case for this chapter. Moreover, once the case had been chosen, I engaged in several conversations with the medical specialist responsible for the development of the policy. I will reflect upon the engagement with practice throughout this methods section.

Case

In this second empirical chapter, I will use the policy on "the most responsible physician" as a case to investigate perceived enforcement actions and their relation with physician motivation and compliance. As I explained in the methods chapter (chapter 4), this policy was selected since it was included in one of UMC Utrecht's main monitoring instruments: the quality balanced scorecard (see chapter 2).

The most responsible physician policy aims to improve the care coordination between different care providers by means of one medical specialist that acts as a most responsible physician. The policy that is central to this chapter was formulated by UMC Utrecht, based on guidance (KNMG, 2010) formulated by the Royal Dutch Medical Association (KNMG). This guidance includes thirteen prerequisites for collaboration in health care, including prerequisites such as that it has to be clear to the patient who is the central contact person, and that the care tasks and responsibilities of different health care pro-

26 The graphical representation of the hypotheses in Figure 6 differs slightly from the conceptual model presented in chapter 3. This is the result of including both the direct and indirect relation between enforcement styles and compliant behavior.

viders have to be clearly divided. Since the KNMG guidance has been qualified as a field standard by the Health Care Inspectorate (IGJ) – and not complying with field standards can lead to sanctions (Vermaas, Verbout, & Franse, 2014) – complying with the requirements of the most responsible physician policy is obligatory for hospitals. Moreover, the most responsible physician policy is also related to several of the JCI standards, most importantly to continuity of care[27].

According to the policy formulated by UMC Utrecht, the most responsible physician oversees the totality of care provided and is the central contact for the patient and his or her family. In addition, the most responsible physician has to be registered in the electronic patient file. In UMC Utrecht's policy, three settings for the most responsible physician are specified: inpatient clinic, outpatient clinic and intensive care. These settings are the result of care coordination and patient contact being different in these situations. Whereas the outpatient clinic might involve long-term contacts between a patient and one physician, the intensive care setting involves short-term and highly intensive contact between a patient and several physicians (due to the need for 24/7 care in this setting). Based on my discussions with the physician responsible for drafting the policy document, I focused on the inpatient clinic setting only. The main reason for this is that the policy for outpatients is more complicated and might be less relevant, since the medical specialists do not see these patients on a regular basis. Moreover, the intensive care setting is highly specific and only involves a small number of medical departments (an intensive care for adults, children, and neonates). In Text box 3, I have provided an imaginary case to clarify the policy.

Text box 3: Clarifying the treatment goal policy

Imagine a patient that is diagnosed with both heart failure and breast cancer. For the breast cancer, the patient needs an operation, radiation treatment and chemotherapy. Different medical specialists are involved in the treatment of this patient: a cardiologist, a surgeon, a radiotherapist and an internist-oncologist. As this example indicates, many different care providers can be involved in the treatment of a patient. It is the task of the most responsible physician to oversee the totality of care provided and to be the central contact for the patient and his or her family. So who is the most responsible physician in this case? Depending on the severity of the breast cancer and the heart failure, either the cardiologist or the internist-oncologist could be the most responsible physician.

Note: This case is based on a case mentioned in UMC Utrecht's policy on the most responsible physician.

Procedure and sample

The quantitative data were collected in the summer of 2015 from medical specialists at UMC Utrecht. Only medical specialists were included, since they are the only physi-

27 Within the main category of continuity of care, Standard ACC.3.1 states that "During all phases of inpatient care, there is a qualified individual identified as responsible for the patient's care" (Joint Commission International, 2017).

cians eligible to be most responsible physicians. Based on discussions with colleagues from the quality and patient safety department and the physician involved in drafting the policy, so-called "supportive specialists" (including for example those working in the fields of clinical genetics, pathology and radiotherapy) were excluded as potential respondents. The main reason for doing so was because these specialists are not eligible to be most responsible physicians, since they support rather than coordinate the treatment of patients. Due to my focus on the inpatient clinic, specialists that mainly treat outpatients (including dermatologists) were also excluded as potential respondents. In total, 155 medical specialists were excluded as potential respondents.

Data for this study were collected by means of a digital survey (the complete survey can be found in appendix II) that was administered to 456 medical specialists directly by email. To limit the role of socially desirable answers and to improve the response rate, the email stressed that respondent's answers would be treated confidentially and that the data were only accessible by the PhD student. Moreover, the message emphasized that the results would not be traceable to departments or individuals and that the goal was to learn about the mechanisms behind implementation and not to judge medical departments or medical specialists. In order to increase the response rate, I also took several other actions. First, it was stressed that the short survey could be filled out in about five to ten minutes. Second, the respondents were promised a summary of the results of the survey. Third, a reminder was send after two weeks.

Of the 456 surveys sent out, a total of 92 were returned, resulting in a response rate of 20.2%. Taking into account that medical specialists are a very difficult group to reach by surveys (Cook, Dickinson, & Eccles, 2009), I consider this a sufficient response rate. The respondents came from all eight divisions that provide medical care to inpatients, and from 28 different specialisms and 47 different medical departments.

To check whether the data was representative for all medical specialists at UMC Utrecht, the distribution of respondents across divisions was compared between the population and the sample (see Table 7). This comparison showed that physicians from four divisions (heart & lungs, brain, vital functions and the cancer center) were underrepresented, while respondents from two divisions (surgical specialisms and internal medicine & dermatology) were overrepresented. Therefore, the sample was not fully representative. To test whether respondents from different divisions scored significantly differently on the key variables included in this study, I used ANOVA tests. These tests showed no significant differences between respondents from all the divisions regarding the variables included in this study, indicating that response bias might have played a limited role.

Table 7: Overview of representativeness

Division	Surveys sent	% of population	Surveys returned	% of sample
Heart & lungs	42	9.21	7	7.61
Surgical specialisms	83	18.20	21	22.83
Brain	56	14.04	11	11.96
Internal medicine & dermatology	64	14.04	15	16.30
Children	69	15.13	14	15.22
Vital functions	57	12.5	8	8.70
Woman & baby	41	8.99	8	8.70
Cancer center	44	9.65	8	8.70
Total	**456**	**100**	**92**	**20.2**

Measures

In this section, I will describe how the three variables that are central to this chapter were measured. Before describing the measures, I will reflect upon the role of engagement with practice during the design of the survey.

In line with the engaged scholarship approach of this dissertation (see chapter 4), I used input from both academia and practice to construct the survey. Input from academia consisted of using available measurement scales to ensure reliability and validity. When needed, the wording of items was adapted for readability and clarity. Examples include substituting the word "organization" with "UMC Utrecht". Input from practice was used in several phases of the process. First, I used insights from practice to construct a measurement scale for compliance. Whereas I could have used existing scales to measure perceived enforcement and motivation, this was not possible for compliance, since compliance can only be defined – and therefore also measured – based on the policy that individuals have to comply with (Parker & Nielsen, 2009b). Second, I discussed the survey within the core research team, with colleagues from the quality and patient safety department, and the physician responsible for the formulation of the most responsible physician policy. During these discussions, the focus was on clarity and applicability of the items to the specific UMC context and the most responsible physician policy. Third, I pre-tested the survey with ten medical specialists from different departments to check whether the questions were comprehensible and relevant. During this pre-test, I asked the respondents to think aloud while filling out the survey. By doing so, I could check whether their interpretation was in line with the intention of the items and whether the items were meaningful. From the pre-test, it turned out that there needed to be more emphasis on the fact that the question on compliance was about actions that the most responsible physicians *themselves* took in their role as most responsible physician. As the physicians explained, this emphasis was important because they would otherwise also consider actions that they had delegated to other care providers – mostly residents – as actions they took themselves. Moreover, some wordings were adapted in order to

avoid irritation or negative connotations. An example included substituting the word "change" with "most responsible physician policy". Below, I will provide information about the measurement scales that I used (an overview of all measurement scales can be found at the end of this section, in Table 8).

This quantitative chapter measures health professionals' *perceptions* of enforcement actions (May & Winter, 2011) rather than enforcement actions *as used* by front line management. Although measuring enforcement actions as used would have been more in line with my conceptual model (see chapter 3), this was simply not possible due to the difficulty of including sufficient medical department heads in the survey. The perceived enforcement approaches were measured by means of the scale developed by Mikkelsen and colleagues (2017). The scale consisted of two dimensions (punishment and persuasion), with two items per dimension. Since Mikkelsen and colleagues collected data from teachers and on a different policy, the items were adapted towards the enforcement of medical specialists and the most responsible physician policy. Moreover, I only used one item of the punishment scale, since the other item focused on monitoring rather than enforcement. This resulted in the use of two items on persuasion ("entering into dialogue with medical specialists about being the most responsible physician" and "making suggestions to medical specialists about being the most responsible physician") and one item on punishment ("demanding that medical specialists are the most responsible physician"). Responses were assessed on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Factor analysis showed good results with loadings above .85 and Cronbach's alpha for persuasion was .79 (see Table 8).

I chose to measure *motivation* with the variable *commitment to change*. Commitment to change is defined as "a force (mindset) that binds individual to a course of action deemed necessary for the successful implementation of a change initiative" (Herscovitch & Meyer, 2002, p. 475). I chose to use commitment to change since this concept measures attitudes towards a *specific* change, whereas motivation to comply focuses on *general* motivation to follow the rules. Motivation and commitment have been labeled "distinguishable, albeit related, concepts" (Meyer, Becker, & Vandenberghe, 2004). Therefore, I argue that measuring different types of motivation with a commitment measurement scale is justified. Of the different types of commitment to change, I chose to use affective and continuance commitment only, since these are most closely related to intrinsic and extrinsic motivation. *Affective commitment* reflects the desire to provide support for change based on a belief in its inherent benefits and *continuance commitment* reflects the recognition that there are costs associated with failure to provide support for a change (Herscovitch & Meyer, 2002, p. 475).

Commitment to change was measured with Herscovitch and Meyer's (2002) commitment to change scale. For comprehensibility, I substituted the word "change" with the specific policy that was central to the data collection. Both affective and continuance

commitment were measured with six items each. Sample items included "I believe in the value of the most responsible physician policy" (affective commitment) and "I feel pressure to go along with the most responsible physician policy" (continuance commitment). Responses were assessed on a seven-point scale, from strongly disagree (1) to strongly agree (7). Factor analysis indicated that two items of continuance commitment loaded onto a third factor. After removing these items, two clear factors with high factor loadings and high alphas (affective: .94; continuance: .80) remained. All items and their factor loadings can be found in Table 8.

Compliance was defined as acting in line with explicit requirements of the most responsible physician policy. As I showed when introducing the case, the most important requirements of the policy include that the most responsible physician 1) oversees the totality of care provided and 2) is the central contact for the patient and his or her family. Based on these two requirements, I formulated two items to measure compliance: "Overseeing the totality of care provided to the patient" and "Ensuring that it is clear for the patient and other involved care providers that I am the most responsible physician". Medical specialists were asked how often they perform these tasks *themselves* for inpatients they are the most responsible physician for. Responses were assessed on a seven-point scale from 1 (never) to 7 (always). As Table 8 indicates, both items loaded onto one factor with factor loadings (above .608) and good Cronbach's alpha (.75).

Statistical analyses

The relation between a perceived enforcement approach and compliance can be divided into direct and indirect components. The direct effect is the effect of enforcement approach on compliance and the indirect effect is the product of the effect of enforcement approach on commitment and the effect of commitment on compliance. Following Hayes (Hayes, 2013), we computed two models to estimate the direct and indirect effects of enforcement approach on behavior. The first model explains the effect of enforcement approach on commitment to change and the second model explains the effect of enforcement approach on behavior and the effect of commitment to change on behavior. To estimate the inferential test for the indirect effect, we used a bias-corrected bootstrap confidence interval with 10,000 bootstrap estimates. All analyses were done in SPSS 24.0 and the bootstrap confidence intervals were calculated using PROCESS (http://processmacro.org/index.html), an add-on for SPSS developed by Hayes for path analysis-based mediation. In line with the hypotheses we formulated, all of the above analyses were done twice: first for the "model" of punishment and second for the "model" of persuasion.

Now that I have introduced the background to the study, I will turn to the discussion of the results. Below, I will first present the descriptive statistics before turning to the presentation of the relations between enforcement actions, motivation, and compliance.

Table 8: Factor analysis and reliability analysis of the measurement scales

Factor	1	2	3	4	5
Overseeing the totality of care provided to the patient	-.011	.548	.174	-.130	**.608**
Ensuring that it is clear for the patient and other involved care providers that I am the most responsible physician	.020	-.134	.108	.099	**.906**
Making suggestions to medical specialists about being the most responsible physician	**.849**	.024	.231	.225	-.106
Entering into dialogue with medical specialists about being the most responsible physician	**.950**	.000	-.162	-.154	.090
Demanding that medical specialists are the most responsible physician	.047	**.939**	-.083	.080	-.063
The most responsible physician policy serves an important purpose	.043	.099	**.765**	-.045	.174
I think that management made a mistake by introducing the most responsible physician policy (R)	.079	.039	**.654**	-.211	.090
Things would be better without the most responsible physician policy (R)	.106	.112	**.697**	-.22	.059
The most responsible physician policy is not necessary (R)	.015	-.082	**.957**	.003	-.029
I believe in the value of the most responsible physician policy	-.066	.016	**.991**	.029	-.077
The most responsible physician policy is a good strategy for this organization	-.020	-.103	**.932**	.013	.067
I have too much at stake to resist the most responsible physician policy	.089	0.063	-.182	**.687**	.123
I feel pressure to go along with the most responsible physician	-.054	.491	.123	**.583**	-.219
It would be too costly for me to resist the most responsible physician policy	.057	.097	-.032	**.706**	-.212
It would be risky to speak out against the most responsible physician policy	.044	-.083	-.117	**.896**	.118
Cronbach's α	.79	-	.94	.80	.75

Note: Rotation method: Oblimin with Kaiser normalization. Pattern matrix.
Factor 1 = persuasion; Factor 2 = punishment; Factor 3 = affective commitment; Factor 4 = continuance commitment; Factor 5 = compliant behavior

6.2 DESCRIPTIVE STATISTICS

In this paragraph, I will describe the scores on the main variables included in this chapter. In Table 9, the descriptive statistics of the variables are summarized.

Table 9: Descriptive statistics

Variable	N*	Mean	SD
Persuasion	91	3.76	1.70
Punishment	82	5.04	1.88
Affective commitment	92	5.72	1.39
Continuance commitment	90	3.25	1.60
Compliance	92	5.59	1.31

Note: All items are measured on a seven-point scale (1=low; 7=high). * The number of respondents varied between questions since the respondents had the option not to answer all questions.

From Table 9, it can be seen that three of the scores are above the theoretical mean of the measurement scale, whereas two are below. Respondents perceived high levels of punitive enforcement and they indicated that they had high levels of affective commitment and compliance. In addition, respondents indicated that they perceived low persuasive enforcement to have low levels of continuance commitment.

For enforcement, the medical specialists mainly indicated that they perceived punitive enforcement (5.04) and a lower degree of persuasion (3.76). In addition, the medical specialists indicated that they had high levels of affective commitment (5.72) and lower levels of continuance commitment (3.25). Finally, the respondents indicated that they had high levels of compliance (5.59).

The standard deviations from Table 9 indicate that there is a larger variability (or more spread) between medical specialists for the perceived enforcement styles and continuance commitment (scores between 1.60 and 1.88) than for affective commitment and compliance (scores of 1.39 and 1.31 respectively). The larger standard deviations for perceived enforcement and continuance commitment indicate that respondents vary more in their perceptions of enforcement style and affective commitment than in their affective commitment and compliance.

6.3 TESTING THE RELATION BETWEEN PERCEIVED ENFORCEMENT AND COMPLIANCE

In this section, I will turn to investigating the relation between perceived enforcement styles and compliance. First, I will present the results from the correlation analysis. Second, I will discuss the analyses of the relation between punishment and compliance

(hypotheses 1 and 2). Third, I will discuss the analyses of the relation between persuasion and compliance (hypotheses 3 and 4).

Relation between the variables

In Table 10, the correlation between the variables is shown. The correlation table indicates that the two types of enforcement actions are not significantly related to each other (r=.074, p>.05). Moreover, affective commitment is negatively related to continuance commitment (r=-.237, p<.05).

Table 10: Correlation table

	1	2	3	4
1. Persuasion				
2. Punishment	.074			
3. Affective commitment	.387 ***	.033		
4. Continuance commitment	-.096	.429 ***	-.237 *	
5. Compliance	.213 *	-.045	.480 ***	-.191

Note: Pearson correlation. * <p.05; *** p<.001.

When investigating the relations between the core variables of this chapter, three things stand out. First, only persuasion is positively correlated with compliance (r=.213, p<.001), whereas punishment is not. Second, two significant relations were found between perceived enforcement actions on the one hand and commitment on the other. Persuasion is positively correlated with affective commitment (r=.387, p<.001) and punishment is positively related with continuance commitment (r=.429, p<.001). Third, of the two types of commitment, only affective commitment is positively correlated with compliance (r=.480, p<.001).

The effectiveness of persuasive enforcement

In this section, I will first test the hypothesis that a persuasive enforcement style has a positive relationship with compliance (H1). I will also investigate whether the relation between a persuasive enforcement style and compliance is mediated by intrinsic motivation (H2).

To test these hypotheses, two regression analyses were computed (see Table 11). In the first analysis (model 1), the relation between a persuasive style and affective commitment was computed. In the second analysis (model 2), the relation between a persuasive style and affective commitment on the one hand and compliance on the other was computed.

Table 11: Regression analysis for the persuasion approach

	Model 1 Affective commitment			Model 2 Compliance		
	Coefficient	SE	p	Coefficient	SE	p
Persuasive style	**.315**	**.080**	***	.027	.078	
Affective commitment	-	-	-	**.436**	**.096**	***
Constant	4.52	.328	***	2.985	.527	***
	Adj. R^2= .14 F=15.63 ***			Adj. R^2=. 21 F=12.85 ***		

Note: OLS regression. *** p<.001.

The third hypothesis concerns the direct relation between a persuasive style and compliance. As the results from model 2 indicate, the direct effect of persuasive enforcement on compliance is .027 (SE=.078). However, this direct effect is not statistically different from zero, *t*=.342, *p*=.733, with a 95% confidence interval from -.129 to .182. These results indicate that there is no direct effect of a persuasive enforcement style on compliance.

Next, the indirect association of persuasive enforcement and compliance was computed. Hypothesis 2 concerns the indirect relation between a persuasive style and compliance via affective commitment. As model 1 and 2 indicate, the persuasive style was significantly related to affective commitment (B=.315, p<.001) and affective commitment was significantly related to compliance (B=.436, p<.001). Based on these results, the total indirect effect is calculated by multiplying the effect of persuasive enforcement on affective commitment and the effect of affective commitment on compliance: .315(.436) = .137. This indirect effect is statistically different from zero, as revealed by a 95% BC bootstrap confidence interval that is entirely above zero (.047 to .255). This indirect effect of 0.137 means that physicians who differ by one unit of perceived persuasive enforcement are estimated to differ by 0.137 units in their reported compliance as a result of the tendency for those perceiving more persuasive enforcement to have a higher affective commitment, which in turn translates into greater compliance.

In sum, these results indicate that there is no direct association between persuasive enforcement and compliance (rejecting hypothesis 1). The findings do indicate, however, that a persuasive approach is indirectly related to compliance via affective commitment (supporting hypothesis 2).

The effectiveness of punitive enforcement

So far, I have described the variables included in this study and have used a correlation analysis to gain a first understanding of the relation between them. In this section, I will first test the hypothesis that *a punishment style has a positive relationship with compliance* (H3). I will also investigate whether *the relation between a punishment style and compliance is mediated by extrinsic motivation* (H4).

To test these hypotheses, I will first consider the direct and indirect relation between punitive enforcement and compliance. To do so, two regression analyses were computed (see Table 12). In the first analysis (model 1), the relation between the punishment style and continuance commitment was computed. In the second analysis (model 2), the relation between the punishment style and continuance commitment on the one hand and compliance on the other was calculated. The results from the models can be found below.

Table 12: Regression analysis for the punishment approach

	Model 1 Continuance commitment			**Model 2 Compliance**		
	Coefficient	SE	p	Coefficient	SE	p
Punishment style	**.375**	**.089**	***	.057	.074	
Continuance commitment	-	-	-	**-.196**	**.085**	*
Constant	1.383	.484	**	6.082	.381	***
	Adj. R^2=.17 F=17.59 ***			Adj. R^2=.04 F=2.70		

Note: OLS regression. * p<.05; ** p<.01; *** p<.001.

To test the first hypothesis, the results of model 2 should be used. However, the insignificant F ration of model 2 indicates that this model does not improve our ability to predict compliance compared to the level of inaccuracy in the model (Field, 2009). The non-significant F-test of the second model indicates that punitive enforcement actions cannot explain compliance with the most responsible physician policy.

To test the second hypothesis, the results of model 1 and 2 should be used. Due to the insignificant F ratio of this model, it has to be concluded that continuance commitment does not contribute to explaining compliance. The results of model 1 indicate that the punishment style has a positive association with continuance commitment (B=.375, p<.001). These findings indicate that an increase of perceived punishment contributes to an increase of continuance commitment. This increase in continuance commitment is, however, not related to an increase in compliance.

In sum, the results indicate that there is neither a direct nor an indirect association between punitive enforcement actions and compliance. As a result, both hypothesis 3 (concerning the direct effect) and hypothesis 4 (concerning the indirect effect via continuance commitment) are rejected. In addition to the results that are central to answering the hypotheses, the results indicate that a punishment approach contributes to higher levels of continuance commitment.

6.4 CONCLUSION

The focus of this second empirical chapter was testing whether and how enforcement actions are related to compliance. I considered both the direct relation between enforcement actions and compliance, and the indirect relation via motivation. I used the "most responsible physician" policy as a case to investigate perceived enforcement, motivation, and compliant behavior. To test the relations between these concepts, I used a cross-sectional survey of 92 medical specialists.

The results of this chapter can be summarized as follows. First, I considered whether persuasive enforcement actions are related to compliance via intrinsic motivation. The results from this chapter indicate that persuasive enforcement actions are indeed related to compliance via intrinsic motivation. Moreover, the results indicate that there is no direct relation between persuasive enforcement actions and compliance. Second, I considered whether a punitive enforcement approach is related to compliance via extrinsic motivation. The results from this chapter indicate that punitive enforcement actions are not related to compliance, neither directly nor via extrinsic motivation. The findings did indicate, however, that higher levels of punitive enforcement are related to higher levels of extrinsic motivation.

The findings regarding the effectiveness of the persuasive and punitive enforcement styles confirm the starting point of this dissertation that, depending on the way in which a bureaucratic control system is enforced, it can lead to different outcomes. The finding that persuasive enforcement actions are related to compliance via intrinsic motivation add to the previous chapter (chapter 5) by providing evidence that it is not only possible to enforce a bureaucratic rule system in a persuasive way, but that this is also an effective approach to ensure health professionals' compliance with quality and patient safety regulations. Moreover, the finding that a punishment approach is related to extrinsic motivation confirms the assumption that bureaucratic control systems contribute to extrinsic motivation since they try to change behavior by involuntary means.

In the first empirical chapter (chapter 5), I used qualitative data to explore the enforcement actions used by nurse front line leaders and explaining what determines these actions. In this second empirical chapter (chapter 6), I used quantitative data to test the relation between enforcement actions and physician motivation and compliance. In the third and final empirical chapter (chapter 7), I will combine the insights from the first two empirical chapters by investigating both the enforcement actions used by medical front line leaders and the motivation and compliance of medical professionals.

Chapter 7

Exploring and evaluating medical department heads' enforcement actions

In this third and final empirical chapter, I will use qualitative data for a focused exploration of the enforcement actions used by medical department heads and the relation of these actions with physician motivation and compliance. Doing so will enable me to triangulate the findings of the quantitative results from the previous empirical chapter (chapter 6). Moreover, based on the results of the first empirical chapter (chapter 5), I will also consider whether medical department heads' motivation to take enforcement actions and the enforcement actions used by the division management play a role in explaining whether medical department heads use enforcement actions.

This chapter is organized as follows. In section 7.1, I will provide background information about the expectations for this chapter and the methods used to investigate these expectations. In section 7.2, I will describe the different enforcement actions used by medical department heads and the motivation and compliance of physicians. In section 7.3, I will compare these different descriptions to provide more insights into what different enforcement actions and compliance entail and how these might be linked. Finally, in section 7.4, the chapter finishes with a conclusion.

7.1 BACKGROUND

In this background section, I will first provide a summary of the main propositions that have been central to the data collection for this chapter. In addition, I will provide more information about the research methods that have been used to collect data about these propositions.

Theory

In the theoretical framework of this dissertation (chapter 3), I argued that a bureaucratic control system can be enacted in different ways. More specifically, I used regulatory enforcement literature (Gormley, 1998; Hutter, 1989; Mascini & Van Wijk, 2009; May & Wood, 2003; Mikkelsen et al., 2017; Reiss, 1984; Shover et al., 1984) to conceptualize two styles to enforce quality and patient safety policies: persuasion (focusing on persuading individuals to comply by using actions such as negotiation and education) and punishment (focusing on threatening and punishing non-compliant individuals). I adapted the insights from regulatory enforcement literature to the organizational context by focusing on front line managers as the main "enforcement actor".

The central focus of this dissertation is the question whether these different enforcement styles are related to health professionals' motivation and compliance. In my theoretical framework (chapter 3), I distinguished between intrinsic motivation– doing something because the activity itself is interesting – and extrinsic motivation – doing something because the action leads to a separable outcome (Ryan & Deci, 2000).

Moreover, I defined compliance as acting in line with the explicit requirements of quality and patient safety policies. In the theoretical framework (chapter 3), I also formulated two propositions about the link between enforcement styles and health professionals' motivation and compliance. In the first proposition, I expected that persuasion supports the need for self-determination and therefore contributes to compliance via intrinsic motivation (Mikkelsen et al., 2017). In the second proposition, I expected that punishment results in a shift to external motivation, and therefore contributes to compliance via extrinsic motivation (Ayres & Braithwaite, 1992). In sum, I expected that both types of enforcement actions could contribute to compliance, but via different "motivational routes". Below, I will introduce the methods that I used to investigate these propositions.

Methods

Like in the other two empirical chapters, the engaged scholarship approach (see chapter 4) played a significant role in the design and analysis of this final empirical chapter. As I explained in the methods chapter (chapter 4), the case that is central to this chapter was chosen in close collaboration with UMC Utrecht's quality and patient safety department. Moreover, once the case had been chosen, I had several meetings with the physician responsible for the policy.

Case

In this third empirical chapter, I will use the policy on treatment goals as a case for a focused exploration of medical department heads' enforcement actions and their link with medical specialists' motivation and compliance. Treatment goals were chosen as a case since they are included in one of the main monitoring instruments of UMC Utrecht: the electronic patient file[28] (see section 4.3 for more information about the case selection).

Formulating treatment goals is a requirement of the Joint Commission International's accreditation standard Care of Patients (COP) 2.1. According to this standard, an individualized plan of care should be developed and documented for each patient. The plan of care outlines the treatment that is to be provided to a patient (Joint Commission International, 2017). More specifically, the standard specifies that the plan should use data from the initial assessment and reassessment of the patient; should involve the patient and family in the planning process; should be updated to reflect the evolving condition of the patient; should be evidenced in the patient's medical record through documentation. In the standard, it is argued that one method of developing care plans is to identify and establish measurable goals. Measurable goals are observable, achievable targets related to expected patient outcomes. Such goals must be realistic, specific to

28 The results of the first qualitative study (chapter 5) indicated that the electronic patient file was an additional opportunity for monitoring health professionals' compliance.

the patient and time-based to provide a means to measure outcomes and progress related to the plan of care. Based on the JCI standard, UMC Utrecht has formulated its own policy on treatment goals and the treatment plan. This policy can be found in Text box 4:

Text box 4: UMC Utrecht's treatment goal policy

> "The goal of the admission is determined based on the following information: reason of admission, actual problems, and functional restrictions as perceived by the patient. This is registered in the patient file as a treatment goal. A treatment goal is observable, achievable, patient-specific, and based on time. For the realization of the treatment goal, an accompanying treatment plan is formulated […]. During the admission, treatment goals should be discussed in the daily patient round, the large patient round, the multi-disciplinary meeting and patient communication. During these moments, treatment goals should be evaluated and revised when needed."

Source: UMC Utrecht policy on treatment goals and treatment plan for inpatients

Procedure and sample

Data was collected by means of semi-structured interviews in the period of March-May 2017. Respondents were selected from multiple actors at multiple levels of UMC Utrecht: medical managers at the division level, medical department managers at the medical department level and medical specialists at the front line. First, five divisions were randomly selected. Within each division, two medical departments were randomly selected. Within each department, two physicians were randomly selected. In two departments (of the same division), an insufficient number of respondents replied to the invitation to participate. In both departments, this was the result of a large number of colleagues being absent due to illness. As a result, the three interviews that were conducted in these departments were not included in the data analysis and two new departments (of a different division) were included in the data collection. Moreover, during the data collection, it turned out that many departments did not comply with the policy and therefore, one additional department was included to learn more about the factors that explain compliance. As a result, data was collected in five divisions and eleven departments. The total number of respondents can be found in Table 13.

Interviews lasted between 30 minutes and one hour and were tape-recorded and transcribed verbatim (Braun & Clarke, 2006).

Topics

The interviews were semi-structured and guided by a topic list based on my theoretical interest in enforcement actions, motivation, and compliance (see appendix III for the complete topic lists). Before conducting the interviews, the physician responsible for the standardization of the patient file showed me where and how the treatment goals should be formulated and registered in the patient file. As a result, I had a good understanding of the policy – and what compliance with the policy looks like – during the interviews.

Table 13: Overview of respondents

Division	Medical manager	Department manager*	Medical specialist	**Total**
1	1	0**	4	5
2	0***	4	4	8
3	1	3	6	10
4	1	3	4	8
5	1	3	4	7
Total	4	13	22	**39**

* The number of department leaders in each division varies due to differences in division structure (some have only one level of department managers, others also have sub-department managers).
** The two department managers of this division did not respond to the interview invitation.
*** This medical manager had only started the ad interim function several weeks before the interview and was therefore not included as a respondent.

The interviews with division managers and department managers focused on whether and how they enforced the treatment goals (thereby focusing on both persuasive and punitive enforcement actions), and which factors determined their actions (specifically focusing on their motivation and the role of the management above them). In the interviews with the medical department heads, I also asked them about their impression of their physicians' compliance with the treatment goal policy.

The interviews with medical specialists focused on compliance (both what the agreements in their department were and how they themselves used treatment goals, thereby focusing on the elements that were formulated in UMC Utrecht's policy), their motivation as to whether to use treatment goals and the enforcement of treatment goals (focusing on who enforced the treatment goals and which enforcement actions were used).

Data analysis

As in the first qualitative chapter, I used the framework method to analyze the data (Gale et al., 2013; Moullin et al., 2016). The framework method is a systematic method that allowed me to assess the data across both cases and themes. First, I familiarized myself with the data by reading the interview transcripts. After doing so, I followed the two steps that are central to the framework method. In the first step, I created a framework of central themes and subthemes based on the core theoretical concepts: enforcement actions, motivation and compliance. For division leaders and department leaders, themes included their enforcement actions (with the subthemes persuasive and punishment actions) and reasons for these actions (with the subthemes intrinsic and extrinsic motivation, and enforcement by the management above them). For physicians, themes included motivation (with the subthemes intrinsic and extrinsic motivation) and compliant behaviors (with the subthemes compliance and non-compliance). Whereas

the classifications of enforcement actions and motivation were based on the literature, the classification of compliance versus non-compliance was based on input from UMC Utrecht's practice. To operationalize and analyze compliance, I used the policy on treatment goals as a point of departure, combined with several conversations with the physician responsible for the patient file standardization and the policy advisors from the quality and patient safety department. In the second step, I generated a matrix to summarize the themes and subthemes for each medical department. In this matrix, the enforcement actions by the medical department heads were linked to the motivation and compliant behavior of physicians working in the department.

Results included in this chapter

Based on the assessment of both cases and themes, four different "situations" of enforcement actions and compliance emerged from the framework analysis. The data matrix indicated that these situations differed between (rather than within) the departments that were included in the data collection. For readability and comprehensibility, I will first discuss these "situations" one-by-one by describing the enforcement actions that were used, medical department heads' reasons for using or not using enforcement actions, and the motivation and (non-)compliance of physicians. Based on the description of the four situations, I will explore the relations between medical department heads' enforcement actions and medical specialists' motivation and compliance in section 7.3.

7.2 ENFORCEMENT ACTIONS AND OUTCOMES

Situation 1: "Group effort"

In one department, two main actors were found to be responsible for the implementation of treatment goals in the department: the medical department head and one of the physicians. The physician played an active role in all issues related to the electronic patient file. As part of this role, he also played an active role in standardizing the use of treatment goals for the department. Led by these two "main actors", the medical staff as a whole agreed upon the use of the treatment goals and where to register them in the patient file. Moreover, the staff members also agreed upon the registration of treatment goals for chronic patients as an indicator. This indicator was part of discussions among the staff members. As both the physicians and the department leader indicated, the medical staff as a whole felt responsible for the implementation. Below, the role of the staff as a whole is exemplified by a quote from a medical specialist and the department leader.

"*And I think that we feel responsible as a team, registering the treatment goals, there is one colleague that is handy with setting it up, so he does that, but we collectively decide to do it. And the department head's role is to justify our decision at other levels.*" (Medical specialist 12, department 6)

"We have agreed as a group that we think it is important that if someone cannot make it, that it is easy to take over the outpatient appointments and that you know what the treatment plan and what the goal is. That is what we aim for, so we have agreed with each other that we check the registration of the treatment goals of our chronic patients. And once a year, our secretary checks 30 patient files of each of us, on a few indicators, and one of these indicators is treatment goals for chronic patients. And then we discuss it with the group. But it also includes my own patient files." (Medical department head 4, department 6)

The medical department head indicated that the main reason for her enforcement actions were that she considered the treatment goals to be an addition to the quality of care. Her motivation towards the policy was also expressed in her participation in the hospital-wide team that was responsible for the formulation of the treatment goal policy. As part of this role, she had a sort of "ambassador" function in which she spread the message at other departments as well. The medical department head was motivated about the policy, since she saw it as positive for patients:

"*For the patient, it is sometimes nice to know what we are working towards. Patients can all have a look in the patient portal, and I often discus with them what the goal is of what we are doing, but they can also see it for themselves. And if they want to, they can already have a look, and then you can have a different conversation. These kind of things can also help you, and sometimes the advantage is not noticeable in the hospital, but only once the patient is already back home. Or some things are mainly good for prevention.*" (Medical department head 4, department 6)

With regard to compliance, the physicians and the medical department head indicated that they *formulated* personalized treatment goals for each individual patient. Moreover, these goals were discussed with patients and other care providers and were updated on a regular basis. However, as the physicians indicated, they did not fully comply with the hospital regulation, since they *registered* the treatment goals in the "wrong way". This was because they registered the treatment goals in the location in the patient file that the physicians agreed upon, rather than on the tab that the hospital provided. The main reason for doing so was that according to the physicians, the tab did not contribute to their care process. As one of the physicians explained:

"*We have a summary in the patient file, that is a structured model in which we describe the conclusions, the treatment and the treatment goal. In addition, the system has a separate tab where you can register the treatment goals, but that is not accessible to all disciplines and the location where it is added in the patient file does not make the whole more comprehensible.*" (Medical specialist 12, department 6)

So why do physicians formulate treatment goals? Physicians indicated that they saw the added value of formulating treatment goals in the way they had agreed to do it. The physicians argued that the way in which they implemented the treatment goals contributed to the quality of care they provided to their patients. In addition, since the physicians as a group had agreed on registering treatment goals in a specific location in the patient file, they indicated that they felt a commitment towards their colleagues to register the treatment goals as agreed. Examples of both of these motives are provided below:

"*I think that the first step you need to take is: well, why would I want to do it and how can I couple it with our vision on how we take care of our patients. In another way, I do not see how it structurally adds something. Then it becomes another thing we need to do, and there are enough of those already. But I think we have now implemented it in a way that fits the process.*" (Medical specialist 11, department 6)

"We decide that together, then we endorse it, and then we all work in that way. We all feel responsible for it and I think we have a shared responsibility for it as the medical staff." (Medical specialist 12, department 6)

In sum, in one department, the physicians as a group agreed upon the formulation and registration of treatment goals. As a result, they indicated that they formulated, registered and communicated treatment goals in the way they had agreed upon. The reasons for complying were that they saw the added value of using treatment goals in this way and a feeling of obligation towards their colleagues.

Situation 2: "External pressure"

In one department, I encountered a deviating situation compared to the other departments due to the large role that health insurers play in the care provided for this medical specialism. This department faced strong financial pressures from health insurers to register a treatment plan for all their patients. Unlike other departments, for this medical specialism, the correct registration of treatment goals was directly linked to the amount of funding received from the insurance companies. As the medical sub-department head indicated, in the past this had led to a situation where the department did not earn suf-

ficient money and as a result, they had even had to fire physicians. To deal with this pressure, the department management had created a highly standardized treatment plan that contained about 70% of the items – including treatment goals – that are demanded by the health insurers. The correct use of the treatment plan is one of the department's Key Performance Indicators (KPI) and is also one of the themes in the yearly performance appraisal of medical specialists. During this performance appraisal, the performance of the medical specialists is evaluated, and the correct and timely use of the treatment plan is one of the items that the medical specialists' performance is evaluated on. As both the medical department head and the sub-department head emphasized, the importance of the treatment plan was emphasized over and over again – both during general staff meetings and in individual conversations between the department leaders and their subordinates. Below, the medical sub-department leader and the medical department head themselves describe their enforcement actions:

"*The Key Performance Indicator is very clear. We just told everyone that, within 24 hours, there needs to be a treatment plan, but our performance information is not always up to date and quickly accessible. In the performance appraisal, I always mention it as one of the parameters. And I know who registers what on time and who does not, but that is because I know who has their administration in order and who does not.*" (Medical sub-department leader 2, department 4)

"*I mean, if you did not hear this in the department you have been living under a rock, because it has been communicated in all possible ways and repeated twice. It is also mentioned in the individual performance appraisal. And when we see that compliance goes down, we also centrally send around an email with the message: guys, remember, within 24 hours, there needs to be a treatment plan!*" (Medical department head 2, department 4)

When asked for their motivation to use and enforce treatment goals, the department leaders mainly mentioned the pressure from the health insurance companies that demand the registration of treatment plans. The department leaders emphasized that not correctly registering the treatment goals led to a cut in payment from the health insurance companies, directly resulting in a budget deficit for the department. As can be seen in the quotes below, the sub-department leader and the department leader used and enforced treatment goals because they felt pressure to do so:

"*It is a very extensive list with actions, just because I have talked to a patient for an hour and a half. And afterwards, I need an hour and a half to jump through all the administrative hoops. That is something that remains.*" (Sub-department leader 2, department 4)

"*Because we are tested in all kinds of ways and need to be accountable for what we are doing.*" (Medical department head 2, department 4)

When medical specialists were asked about their compliance, they indicated that they formulated – elaborated – treatment goals for their patients. These goals are extensively discussed with both patients and other care providers. Moreover, the medical specialist also indicated that attention was paid to the correct registration of treatment goals in the patient file, since this is important to receive the budgets from the health insurance companies. Both the sub-department head and the medical specialists indicated that the level of compliance at the department was high:

"*I think that the treatment goals are registered quite consistently in our department and the extensiveness depends on whether someone is working in the inpatient or outpatient department. In the inpatient department, they are often lengthy pieces of text, which makes you wonder whether they are practical. But it is all registered, at different levels, and evaluated and adjusted regularly.*" (Sub-department leader 2, department 4)

"The treatment goals are filled in quite consistently and carefully, and the extensiveness depends on whether you work at the inpatient or outpatient clinic […]. But it is all filled in and evaluated every once in a while and then adjusted again." (Medical specialist 8, department 4)

Why do physicians use treatment goals? Most of all, physicians indicated that they used treatment goals since this was essential for their patient category; they simply could not do their work without formulating goals with the patient. This was, however, not the result of the introduction of treatment goals. Rather, working with treatment goals had always been central to the way of working of the specialism and it was also part of the training of the medical specialists. The motives for using treatment goals are shown below:

"*In our specialism, finding common ground and whether people recognize themselves is essential. If patients do not recognize themselves in the description, we can give an advice, but that does not work. So there is no other option than agreeing with each other on what you are working towards.*" (Medical specialist 7, department 4)

"*It has always been like this. When I was in training it was already like that. We already used a treatment plan. Was it called a treatment plan? I think so. Well, we had meetings about treatment goals. Once in a while, treatment goals were registered.*" (Medical specialist 8, department 4)

In addition to finding the use of treatment goals important, physicians in this department indicated that they felt obliged to *register* treatment goals. This feeling was the result of the pressure that health insurers put on the correct registration of the treatment goals in the patient file. This feeling of pressure brought about by the health insurers was reinforced by the actions of the medical department management, which was focused towards reminding the physicians of the need to correctly register items in the patient file in order to receive financing. As the quote below indicates, physicians registered treatment goals in order to receive funds for their department:

"*We have to do it, because the insurance companies, or at least the reimbursement of the patient's spending requires it. There need to be treatment goals and a treatment plan in the patient file.*" (Medical specialist 8, department 4)

In sum, in one department there was a high external pressure from health insurance companies to formulate and correctly register treatment goals. As a result, the actions of the department leaders were aimed at reminding physicians of this pressure and making registration as easy as possible. Overall, the medical department heads and physicians indicated that the level of compliance was high. Moreover, medical specialists indicated that they were motivated to use treatment goals, since they considered the use of goals essential for providing patient care and because they felt financial pressure to correctly register the treatment goals.

Situation 3: Reminder by the nurse team leader

In two medical departments, enforcement actions were not taken by the front line leader – that is, the medical department head his- or herself – but by the nurse team leader. Since both medical departments did not have many inpatients, they shared one inpatient ward. This ward was led by the nurse team leader. The nurse team leader chaired the grand patient rounds – a meeting where the status of the patients that are admitted is discussed – for both medical departments. During this patient round, the nurse team leader also paid attention to the registration of obligatory items – including the treatment goals – in the patient file. Where no treatment goal was registered, the team leader pointed out that the goal was missing and that the physicians needed to add it to the patient file. The medical specialists of both departments argued that neither their medical department head nor one of their medical colleagues played an active role in the enforcement of the treatment goal policy. As the quotes below indicate, medical specialists emphasized the "ticking the box" character:

"*And then, very briefly, in the patient round, it is briefly mentioned, and if the treatment goals are not in the patient file then you are reminded to add them or change them when they are reached. It does not even take a minute; there is not much discussion about it. We do the standard list, there is someone who watches it.*" (Medical specialist 9, department 5)

"*So it is briefly a minute of treatment goals, very structured.*" (Medical department head 3, department 5)

When the medical department heads were asked why they did not take action to enforce the treatment goals policy, both of them indicated that they did not consider treatment goals to be a contribution to the quality of care provided by their departments. Moreover, they did not mention any pressure or feelings of obligation to ensure the use of treatment goals. As indicated by the quotes below, both medical department heads had a low motivation to use or enforce the treatment goals:

"*Administration, it is pure administration. I doubt that it has added value. It is so obvious, it is like opening a door that is already open.*" (Medical department head 3, department 5)

"*[The division] does not say anything. Officially, they have to say: the executive board has decided that we should do it. But the division is not doing that.*" (Medical department head 5, department 7)

In line with the "instrumental" implementation of the treatment goals by the nurse team leader, the compliance of these two departments can also be characterized as "instrumental" and "ticking the box". These departments only registered – often standardized – treatment goals that were not adapted to individual patient circumstances and that were not discussed with patients. In addition, since only the inpatients were discussed during the grand round, treatment goals were not registered for outpatients. In the quotes below, the instrumental character of the registration of treatment goals is illustrated:

"*We have formulated a few general goals that you can easily add. Those are our general goals; you cannot attach a degree or a number to it. Those are global goals for most of our patients. Well… it keeps it uncomplicated, but it is not patient specific and measurable.*" (Medical specialist 9, department 5)

"*We are not going to discuss with the patient: 'you were admitted yesterday because of fever, and the treatment goal is to find out where the fever comes from.'*" (Medical department head 3, department 5)

Why do medical specialists register treatment goals? Overall, the medical specialists indicated that they were not motivated to use treatment goals, because they considered it as the registration of something that they had always been doing as a physician. Rather, medical specialists indicated that due to the structured format of the grand round, formulating treatment goals was "doable" since it did not take much time and was easily organized for the relatively small group of inpatients. Moreover, there was "no way out", since the treatment goals were always discussed "en plein public" (paraphrasing a medical specialist of one of the medical departments). Both quotes below are an example of the low motivation of medical specialists regarding the treatment goals:

"*We have to register things at so many places that it becomes counterproductive. If you have a problem list, and you make a treatment plan based on this list, then you implicitly have a treatment goal, and then you have to make that explicit as well.*" (Medical specialist 9, department 5)

"*The nurse team leader is very strict in everything, so he looks whether it is registered, so you have to describe and fill in all the treatment goals and during the patient round, we are going to check and tick whether the goals have been reached.*" (Medical specialist 14, department 7)

In sum, the implementation of treatment goals in these two departments amounted to mainly a reminder by the nurse team leader to register treatment goals in the patient file. This "instrumental" implementation resulted in "instrumental" registration of treatment goals in the patient file. Medical specialists indicated that they registered treatment goals because there was "no way out" and since it was quickly achieved in the current format, not because they were motivated to do so.

Situation 4: Non-enforcement

In seven departments, I encountered a situation of non-enforcement. In these departments, there were no enforcement actions taken whatsoever to ensure the use of treatment goals by the physicians working at the department. Neither the medical department head, nor physicians or the nurse team leader, took action to enforce the treatment goal policy of the department. In addition to not taking actions to enforce the use of treatment goals, medical department heads themselves did not formulate or register treatment goals for their own patients. The quotes below are from one medical department head that did not enforce treatment goals and another department leader that did not use treatment goals himself:

"*As department management, you choose some things you focus on and some things you do not focus on. I do not focus on treatment goals.*" (Medical department head 6, department 8)

"I do not use treatment goals myself. I do write down the patient's problem, and also why a patient has been admitted, and I am also willing to think about reasons for discharge, although these are often copy-pasted." (Medical department head 7, department 10)

When medical department heads were asked why they did not enforce the treatment goal policy, the medical department heads indicated that they were not motivated to do so. They indicated that they did not consider the treatment goals as a contribution to the quality of care provided in their department. Moreover, the department leaders did not feel pressure to enforce the treatment goals, since it was not checked whether they were taking action to ensure compliance with the policy. All medical department heads indicated that their manager – the medical manager at the division level – did not take action to ensure that the medical department heads enforced the treatment goal policy. The two quotes below illustrate the low motivation and the low feeling of pressure to enforce the treatment goals:

"*Then I think: reason for admission: treatment of disease. Expected discharge is Thursday, I have already written that down in advance, I write that down with the application. Check!*" (Medical department head 1, department 3)

"*I do not think that I will lose my job, or that I get punished for it, or that I receive less salary. I have the idea that I have some autonomy in that, fortunately.*" (Medical department head 7, department 10)

None of the medical specialists that I interviewed in these seven departments indicated that they formulated and/or registered treatment goals for their patients. Most medical specialists indicated that they knew that the tab existed in the patient file, and that they should use it to register treatment goals, but they did not use it. As two non-compliant medical specialists argued:

"*We know what we have to do. I have to admit that treatment goals are an item that often, in practice, does not make the cut. Because it is, well, an open door.*" (Medical specialist 6, department 3)

"*We barely register treatment goals. And of course we should be doing it, but we are barely doing it.*" (Medical specialist 19, department 10)

When the medical specialists were asked about the reason for not complying with the treatment goal policy, they mainly indicated that they were not motivated to use treatment goals. For most medical specialists, this low motivation was related to the fact that they considered treatment goals to be unnecessary since they already have to register the patient's condition and the patient's treatment plan. Moreover, most physicians indicated that they – obviously – have a goal in mind when they treat a patient, but they did not agree with the importance of explicitly formulating and registering this goal in the patient file. Medical specialists also had a low level of extrinsic motivation; none of the medical specialists indicated that they felt pressurized to register treatment goals. Below, I have provided examples of the low motivation of physicians:

"If we're talking about stupid policies: a treatment goal. What is the treatment goal of a patient that comes to the hospital? He or she has to be cured." (Medical specialist 3, department 2)

"*It is not like anyone up in the hierarchy is going to control it, at least not that I am aware of, I have never seen anyone checking the patient files."* (Medical specialist 18, department 9)

In sum, in seven departments, the medical department head did not take any action to enforce the treatment goal policy. In these departments, none of the medical specialists that participated in my interviews indicated that they complied with the treatment goal policy. The main reason for physicians' non-compliance seemed to be the absence of consequences for non-compliance combined with a low level of motivation regarding the treatment goals.

Now that I have discussed the four varieties of enforcement and compliance that I encountered in the data, I will turn to comparing them in the next section.

7.3 SUMMARY: COMPARING THE SITUATIONS

So far, I have described the four enforcement situations separately. In this section, I will summarize the main insights by comparing the four different situations. I will first compare the enforcement actions that are used, and the motivation and compliance of medical specialists. After doing so, I will consider whether and how enforcement actions, and motivation and compliance are related.

Enforcement actions

The data indicate a clear difference between the four departments where some actions were taken and the seven departments where no actions were taken to ensure compliance with treatment goals.

In the four departments where some actions were taken, I distinguished three different situations. In one department, the medical staff – led by the medical department head and one of the physicians – as a whole agreed upon how to use and register treatment goals and on the use of a key performance indicator to check their own compliance. In one department, which faced external pressures by health insurance companies, the department leaders took action to make compliance as easy as possible, combined with reinforcing the pressure of the health insurance companies in the physicians' annual performance appraisal. Finally, in two departments, the team leader of the nurses reminded physicians during the grand round whenever treatment goals were missing in the patient file. Whereas the first situation resembles persuasive enforcement, and the second situation suggests punishment with some elements of persuasion, the third situation suggests a situation of "non-enforcement", since the team leader of the nurses did not have the authority to force medical specialists to comply. Moreover, the results indicated "varieties of enforcement" of the same policy.

Reasons for enforcement actions

The two department heads that played a role in the enforcement of treatment goals indicated that they were motivated to comply with the treatment goal policy themselves. Whereas both department leaders indicated that they found treatment goals important for the quality of care, the department leader and sub-department leaders of the department that faced external pressure also indicated that they took enforcement actions in order to secure the health insurance companies' funding for their department. The nine medical department heads that did not take any enforcement actions indicated that they were not motivated to comply with the treatment goal policy.

None of the medical department heads mentioned that the manager at the division level played a role. From the interviews with the medical managers at the division level, it turned out that two of the four medical managers only had an ad interim function that they combined with their "regular" function. As a result, they could only tend to the priorities of the division, and enforcing the treatment goal policy was not one of these priorities. The two other medical managers indicated that they did not enforce the treatment goal policy, since they did not consider the implementation of treatment goals as a priority for the improvement of quality and patient safety in their division.

Physicians' compliance and motivation to comply

The results show that there is variation in compliance with the treatment goal policy; seven departments did not comply, two departments merely registered the treatment goals automatically, and two departments used the treatment goals more substantially by both formulating and registering treatment goals for each patient[29]. These differences in compliance were found between departments; the group of physicians working at a department was either using treatment goals or they were not. Although some physicians referred to the fact that they were more or less rule-abiding than their colleagues, the differences within departments appeared rather small.

Medical specialists mentioned several motives for compliance. In the two departments where medical specialists actively formulated treatment goals, they indicated that they did so since they saw the formulation of treatment goals as a contribution to the quality of care. In one department, this motivation was the result of the introduction of treatment goals and in the other department, this motivation was the result of treatment goals always having been central to the way of working of the specialism. In addition, in the department with the high pressure from health insurers, physicians also indicated that they registered the treatment goals correctly in order to secure funding from the health insurance companies. In the seven non-compliant medical departments and the two medical departments where treatment goals were merely registered, on the other hand, physicians were not motivated to comply with the treatment goal policy at all.

Linking enforcement actions and compliance

The data indicate that in all departments where some enforcement actions were taken, there was also some form of compliance and in departments where no actions were taken, there was no compliance.

In the first two situations that I described ("medical staff as a whole" and "monitoring and performance appraisal"), enforcement actions seemed to be related to compliance via motivation. In the first situation, the persuasive enforcement actions were related to compliance via the intrinsic motivation of the medical specialists. In this department, the fact that the group found a way to register the treatment goals that was meaningful and contributed to the way of working contributed to intrinsic motivation. In this department, enforcement actions were not aimed at punishment (or threats thereof), and as a result, feelings of coercion did not play a role in explaining compliance. In the second situation, the emphasis of the department leaders on the pressure to correctly register treatment goals reinforced medical specialists' extrinsic motivation to comply.

29 According to the treatment goals policy, only one of these two departments would be "compliant" since this department registered the treatment goals on the correct tab in the patient file. The other department also registered the treatment goals, but not on the correct tab.

Moreover, the results indicate that the enforcement actions of the department heads did not contribute to medical specialists' intrinsic motivation. Rather, it is likely that the medical specialists' intrinsic motivation was the result of the importance that treatment goals had always had for this medical specialism. Both types of motivation together explain the combination of both the formulation and correct registration of treatment goals.

Finally, in the third situation ("reminder by nurse team leader") there seemed to be a relation between "automatic enforcement" by the nurse team leader and "instrumental compliance" by the medical specialist. In the two departments, the nurse team leader reminded the physicians to register treatment goals during the grand patient round. The result of the actions of the nurse team leader was that physicians instrumentally registered the treatment goals without being intrinsically or extrinsically motivated to do so. This leads to the question whether this situation can actually be seen as enforcement and whether the behavior of the medical specialists can actually be considered to be compliance.

In sum, beyond the clear difference between "enforcement" – resulting in some type of compliance – and "non-enforcement" – resulting in non-compliance – there is a variety of enforcement "situations". The enforcement actions used in these different situations are related to different types of compliance. These different types of enforcement actions, motives and compliance are summarized in Table 14.

Table 14: Summary of enforcement situations

Enforcement actions	Physician motivation	Physician compliance	No. of departments
Medical staff as a whole	Intrinsic	Substantial	1
Monitoring and performance appraisal	Extrinsic & intrinsic	Substantial	1
Reminder by nurse team leader	Low	Instrumental registration	2
None	Low	No	7

7.4 CONCLUSION

In this final empirical chapter, the aim was to learn more about what enforcement actions were used by medical department heads and whether and how these enforcement actions were related to physicians' motivation and compliance. In addition, based on the results of the second empirical chapter, I also considered the motivation of the medical department head and whether he or she was forced to comply by the medical manager at the division level to learn more about the explanation behind whether front line leaders enforce quality and patient safety policies. In order to investigate these questions, I collected qualitative data (39 interviews) on the case of treatment goals.

First, I considered the question which enforcement actions were used by medical department heads. The results of this chapter indicate that the majority of the medical department heads did *not* use any actions to enforce the treatment goal policy. The other medical department heads used a variety of enforcement actions. Whereas the department head of one department used the more persuasive action of deciding as a group on how to use the treatment goals, the department heads of another department used more punitive actions, such as reminding physicians of the external pressure to correctly register treatment goals, and including the registration of the treatment goals in the physicians' performance evaluation. In addition to enforcement actions by medical department heads, I also encountered a situation in which the nurse team leader reminded the medical specialists to register the treatment goals in the patient file during the grand patient round. Since the nurse team leader did not have authority over physicians (see chapter 5), however, this led to the question whether this situation could actually be characterized as enforcement? These findings imply two things. First, the quality and safety policies of the same bureaucratic system are enforced in variety of ways, including the option of non-enforcement. Second, the policies of an accreditation system – a bureaucratic control system – can be enforced without the punishment (or threats thereof) that are often assumed in the literature

The next question I considered is whether these different enforcement actions were related to physician motivation and compliance. The results indicate that the persuasive enforcement actions were related to both intrinsic motivation and compliance. Moreover, the findings suggest that punitive enforcement actions mainly seem to contribute to physicians' extrinsic motivation to correctly register treatment goals in order to receive funding from the health insurance companies. Physicians in this department were also compliant with the policy, but since using treatment goals had always been part of their way of working, it is questionable whether their compliance can be attributed to the department heads' punitive enforcement actions. Finally, non-enforcement by medical department heads was related to physicians not being motivated about the treatment goals, nor being compliant with the treatment goal policy. These findings, again, imply two things. First, different enforcement actions by medical department heads are related to other outcomes. Whereas persuasive actions are related to intrinsic motivation and compliance, punitive enforcement actions are merely related to higher levels of extrinsic motivation. Moreover, when no enforcement actions are used, the treatment goal policy only exists on paper, since it does not lead to use of the policy in practice. Second, these findings imply that it is not only possible to enforce a bureaucratic control system by using persuasion; it is also more effective in ensuring compliance. In sum, the findings of this chapter indicate that it is possible to enforce the rules of a bureaucratic control system in a way that contributes to the motivation and compliance of medical professionals.

The third and final question that I investigated is why some medical department heads use actions to enforce the treatment goal policy whereas others do not? The results indicate that only medical department heads that were motivated about treatment goals took enforcement actions. Both department leaders that took enforcement actions indicated that they were intrinsically motivated to do so; they enforced treatment goals because they believed in the value of the treatment goals for the quality of care provided in their department. One of these department heads was also extrinsically motivated to enforce treatment goals due to the correct registration of treatment goals being related to the amount of funding received from health insurance companies. These findings reinforce the findings from the first qualitative study (chapter 5) about the importance of front line leaders' motivation to take enforcement actions.

In sum, the findings of this chapter indicate that most medical department leaders did not enforce the treatment goal policy. As a result, physicians did not comply with the policy. At the same time, the data indicate that the persuasive enforcement actions taken by some medical department heads were related to physician motivation and compliance. In the next chapter, I will turn to the general conclusion and discussion of this dissertation.

Chapter 8

Conclusion and discussion

The overall aim of this dissertation was to investigate which actions are used to enforce the policies of an accreditation system and how these actions are related to health professionals' motivation and compliance. To investigate this question, I used insights from regulatory enforcement theory to distinguish different enforcement actions and to formulate expectations about the relation of these actions with compliance. Following an engaged scholarship approach, I used insights from both academia and practice to provide deeper insights into this question. In the tree empirical studies of this dissertation, I used different methods, cases and actors to study the same conceptual model.

In this final chapter, I will summarize the findings from this dissertation and discuss the main themes of this dissertation. This chapter is organized as follows. In section 8.2, I will answer the main research question. In section 8.3, I will first provide an in-depth discussion of the findings. This discussion serves as an input for section 8.4, where I will reflect critically upon the theoretical and methodological approach used in this dissertation. In section 8.5, I will discuss the limitations of this dissertation. In section 8.6, I will formulate possible directions for future research. In section 8.7, I will discuss the implications for practice. Finally, in section 8.8, the chapter finishes with some concluding remarks.

8.1 CONCLUSION

In the introduction, the following research question was formulated: *Which actions are used to enforce the policies of an accreditation system and how are these actions related to health professionals' motivation and compliance?* This research question consists of two parts. First, there is the more descriptive part that focuses on exploring different actions that are used to enforce quality and patient safety policies. Second, there is a part that focuses on examining whether and how these different enforcement actions are related to health professionals' motivation and compliance.

To answer the research question, I conducted three empirical studies. Each of the three studies was based on different data. In the first study, I collected qualitative data from "tracer employees" (see chapter 5) and nurse team leaders by means of 37 interviews and 16 observations. In the second study, I collected quantitative data by means of a survey completed by 92 physicians. Finally, in the third study, I collected qualitative data from physicians and their front line leaders by means of 39 interviews. Moreover, I used insights from my engagement with practice throughout the research process.

I explored the enforcement actions used by front line leaders in the two qualitative chapters of this dissertation. In chapter 5, I considered the enforcement actions by nurse team leaders regarding a broad range of quality and patient safety policies. In chapter 7, I considered which enforcement actions medical department heads use to enforce a policy aimed at the formulation of treatment goals. In chapter 5, I found that

nurse team leaders mainly use persuasive actions, such as providing information and education about the importance and/or content of policies, and involving the nurses working at their ward. In chapter 7, I found that enforcement actions used by *medical department heads* include persuasive actions such as agreement by the medical staff on how to formulate and register treatment goals, and more punishment-oriented actions such as reinforcing the external pressures from health insurers to formulate and register treatment goals. In chapter 7, I also found a situation in which the team leader of the nurses – who is *not* the front line leader of the physicians – reminded the physicians about the registration of the treatment goals in the patient file. In addition to it being questionable whether this can be characterized as enforcement, the results of chapter 7 also indicate that these actions only contribute to instrumental registration of the treatment goals. Whereas my focus was on which enforcement actions were used, the results of the qualitative chapters (chapters 5 and 7) indicated that there are also instances of "non-enforcement". In chapter 5, the results indicate that some of the nurse team leaders did not take any action to enforce the quality and patient safety policies in their department. In addition, the findings of chapter 7 indicate that nine of the eleven medical department heads did not take any action to ensure compliance with the treatment goal policy. The findings of chapter 7 indicate that in the departments where the medical department head did not take action to enforce the treatment goal policy, physicians did not comply with the policy.

Having described the different enforcement actions that were used, the next question that has been central to this dissertation was whether and how these different enforcement actions are related to compliance. The results of both the survey and the second qualitative chapter (chapters 6 and 7) indicate that persuasive enforcement is related to compliance via intrinsic motivation. In chapter 6, the results of the survey indicate that perceived persuasive enforcement of the most responsible physician policy is related to physician compliance with the policy and that this relation is fully mediated by intrinsic motivation. In chapter 7, the results indicate that the persuasive actions of agreement by the medical staff was related to physician compliance with the treatment goal policy via intrinsic motivation. Moreover, the results of both chapter 6 and 7 indicate that punitive enforcement is related to extrinsic motivation, but not to compliance. In chapter 6, the results of the survey indicate that perceived punitive enforcement of the most responsible physician policy is positively related to extrinsic motivation. No relation was found between perceived punitive enforcement and compliance. In chapter 7, the results suggest that punishment-oriented enforcement actions mainly reinforce physicians' extrinsic motivation to register the treatment goals correctly. Although the results of this chapter indicate that the physicians had a high level of intrinsic motivation and compliance, this is likely to be the result of the treatment goals always having been central to their way of working. It is therefore unlikely that the punitive enforcement ac-

tions contributed to physicians' compliance with the treatment goal policy. In sum, the findings of chapters 6 and 7 provide support for the proposition that persuasive actions are related to compliance via intrinsic motivation. No firm support was found for the proposition that punitive enforcement is related to compliance via extrinsic motivation.

Based on the unexpected finding of "non-enforcement", I also considered the additional question *why front line leaders did or did not use enforcement actions*. Both qualitative chapters (chapters 5 and 7) provide insights regarding this question. The findings of chapter 5 indicate that some nurse team leaders were themselves forced to comply by the manager above them (the care manager at the division level, see chapter 2). Due to these actions by the care manager, the nurse team leaders indicated that they took enforcement actions to ensure compliance with quality and patient safety policies in their department. Interestingly, the results of chapter 7 indicate that none of the medical department heads were themselves forced to comply by the medical manager above them. In addition to the enforcement role of the higher-level manager, the results of both qualitative chapters (chapters 5 and 7) indicate that it depends on nurse team leaders' and medical department heads' motivation whether they enforce quality and patient safety policies in their department. In chapter 5, nurse team leaders that were motivated regarding quality and patient safety also indicated that they took enforcement actions to improve the compliance of the nurses working at their ward. Similarly, the results of chapter 7 indicate that only medical department heads that were motivated themselves about the treatment goal policy indicated that they took actions to enforce the treatment goal policy in their department. The results of both chapters indicate that this motivation can be either intrinsic or extrinsic; front line leaders take actions because they want to or because they have to. In sum, front line leaders' motivation play an important role in explaining whether front line leaders use enforcement actions. Moreover, for nurse team leaders, being forced by the manager above them also plays a role.

Now I have answered the research question, I turn to the discussion of my findings. Moreover, in section 8.3, I critically reflect on my theoretical and methodological approach.

8.2 DISCUSSION

Based on the findings, there are four themes that deserve more attention. These four themes emphasize the importance of enactment; the possibility of enforcing a bureaucratic control system in a persuasive way; the effectiveness of persuasive enforcement; and the importance of enactment at all levels and by all occupations. Below, I discuss these in more detail.

Same system, different enactment

The findings of this dissertation imply that bureaucratic control systems can be enacted differently. The findings of both qualitative chapters (chapters 5 and 7) indicate that some front line leaders enforce quality and patient safety, whereas others do not. Moreover, the front line leaders that enforce quality and patient safety policies do so with different actions. Whereas most front line leaders use – a variety of – persuasive enforcement actions, some also use more punishment-oriented actions. These differences in enactment of the same system have been a central topic in the field of Human Resource Management[30]. In this field, a distinction has been made more recently between policies as intended by the senior management and policies as actually implemented (Purcell & Hutchinson, 2007; Wright & Nishii, 2013). Intended policies refer to the policies as designed or planned by the senior management and actual policies refer to policies as enacted, mostly by line managers. This difference is based on the observation that not all intended practices are actually implemented, and those that are may often be implemented in ways that differ from the initial intention. Based on differences in implementation, the same policy can be implemented in a variety of ways within the same organization. This implies that there is no such thing as one system that is implemented uniform throughout the organization.

The findings on the differences in enactment contribute to more sophisticated insights on the use of (bureaucratic) control systems. Whereas studies on management control mainly focus on the effects of control systems, mechanisms and targets on different outcomes (see for example Cardinal et al., 2010; Jaworski, Stathakopoulos, & Krishnan, 1993; Langfield-Smith, 1997; Merchant & Van der Stede, 2012), the results of this dissertation indicate that the a system can be enacted differently. Based on these differences in enactment, the same control system can have different impacts on employees throughout an organization.

The most important differences in enactment that I have encountered in the data are the differences between medical and nursing front line leaders. Whereas the results of chapter 5 indicate that most nurse team leaders enforce quality and patient safety policies in their department, the results of chapter 7 indicate that most medical department head do not take actions to enforce the treatment goal policy. The implication of this finding is that the same accreditation system is enacted differently for different occupational groups. This finding reinforces Glouberman and Mintzberg's (Glouberman & Mintzberg, 2001) observation that a hospital consists of different "worlds". The authors argue that a vertical cleavage separates those "intimately connected" to the institution, such a nurses, from the "involved but not so formally committed", the physicians.

30 The study of Human Resource Management (HRM) refers to "all those activities associated with the management of work and people in organizations" (Boxall & Purcell, 2011: 1).

Persuasion as main enforcement method

The findings of both qualitative chapters (chapters 5 and 7) indicate that nurse and medical front line managers mainly use persuasive enforcement actions – such as providing information and emphasizing the importance of compliance – to enforce the policies of an accreditation system. These findings suggest that it is possible to enforce the rules of a bureaucratic management control system with persuasion rather than punishment. This finding is in line with the starting point of this dissertation that bureaucratic control systems can be enacted in different ways, including a way that is *not* based on threats of punishment. The observation that persuasive enforcement is the main approach that is used fits well with studies on the role of leadership in the clinical context. These studies indicate that clinical leaders tend to use persuasion rather than being directive, and they prefer an approach to change that uses consultation, explanation and information, and a choice between options (Edmonstone, 2009; Thorne, 1997). This is due to the fact that even though clinical leaders are appointed by managers, they need to have the respect and trust of their colleagues, with whom they typically have a collegiate rather than a hierarchical relationship (Thorne, 1997; Witman, Smid, Meurs, & Willems, 2010). Similarly, the characteristics most associated with clinical leadership of nurses include being supportive and motivating, and characteristics least associated are controlling, regulating, and reward and punishment (Stanley, 2006).

The observation that an accreditation system is mainly enforced with persuasive actions indicates that the assumption that bureaucratic control systems as based on (threats of) punishment is one-sided and incomplete. As I have argued in the introduction, bureaucratic control systems have been coupled with negative consequences such as lower intrinsic motivation (Coombs, 1987; De Harlez & Malagueño, 2016; Weibel, 2010). These negative outcomes are based on the assumption that bureaucratic control systems are based on the use of punishment or rewards to induce behavior via extrinsic motivation (Eisenhardt, 1985; Korsgaard et al., 2010; Weibel, 2010). The finding that mainly persuasive actions are used imply that Weibel's (2010) notion of "high motivation control systems" – control systems aimed at increasing control though intrinsic rather than extrinsic motivation – is highly relevant for organizational control research. Moreover, the finding that a bureaucratic control system is mainly enforced in a persuasive way suggests that accreditation systems can be more positive than they are usually positioned. This implies that there is a "way out" of the negative effects of bureaucratic control systems.

The effectiveness of persuasive enforcement

The finding that a bureaucratic control system can be enacted in different ways opens up the possibility for different outcomes of this enactment. The findings of the survey (chapter 6) and the second qualitative study (chapter 7) imply that persuasive enforce-

ment actions are related to physicians" intrinsic motivation and compliance with quality and patient safety policies of a bureaucratic control system. These findings provide empirical evidence for Weibel's (2010) notion of "high motivation control mechanisms"; it is possible to enact bureaucratic control in a way that promotes intrinsic motivation. Moreover, the findings of this dissertation also indicate that persuasive enforcement actions are related to compliance of health care professionals. This implies that a "high motivation control system" is not only possible, but is also more effective in ensuring compliance. These findings are in line with the "paradox of coordination and control" (Gittell, 2000). Although the implementation of a bureaucratic control system seems to imply that (threats of) punishment are actions that are needed in such a system, the findings imply that enforcement actions that do not use (threats of) punishment are more effective.

For punishment, on the other hand, the results of the survey (chapter 6) and the second qualitative study (chapter 7) imply that this enforcement style is related to extrinsic motivation, but not to compliance. These findings are in line with the expectation that punishment actions, by trying to change behavior by involuntary means, result to a shift to external motivation (Ayres & Braithwaite, 1992; Mikkelsen et al., 2017). Moreover, the findings imply that the punishment approach is also not an effective way to ensure compliance. This is in line with the view that bureaucratic control systems cannot be effective in the complex and unpredictable hospital context (Abernethy et al., 2007; Aidemark & Funck, 2009; De Harlez & Malagueño, 2016). Similarly, in the regulatory enforcement literature, it has been argued that using persuasion is preferable since punishment could lead to perverse effects, such as decreasing involvement and deteriorating relationships (Ayres & Braithwaite, 1992; Mascini & Van Wijk, 2009).

The finding that different enforcement approaches have other outcomes suggests that the same system can have different outcomes within one organization. This implies that it is not the system as such, but the managerial *enactment,* which determines the motivational and behavioral outcomes of health professionals. These findings add to the management control literature by not only finding differences in enactment, but also finding that differences in enactment are related to differences in motivational and behavioral outcomes. This could also explain why some studies have found that bureaucratic control systems are ineffective (Abernethy et al., 2007; Aidemark & Funck, 2009), whereas other studies have found that they can also have positive outcomes (Adler & Borys, 1996; Cardinal, 2001; Gittell, 2000; Sitkin, Sutcliffe, & Schroeder, 1994).

The importance of enactment at all levels, by all occupations

The findings of both qualitative studies (chapters 5 and 7) of this dissertation indicate that the front line manager is the most important "enactor" of the accreditation system at the department level. As the findings of both chapters indicate, front line managers

can take actions themselves or involve the health professionals working in their department. Involvement, however, still implies that the front line leader him- or herself plays an active role as well. Recent studies into the role of front line leaders in the implementation of innovations in health care (Birken, Lee, & Weiner, 2012; Birken, Lee, Weiner, Chin, & Schaefer, 2013; Dopson, Fitzgerald, & Dopson, 2006) also point to the importance of these actors in the implementation process. Similarly, in the management literature focusing on the implementation of change, the importance of leadership actions at the front line has also been emphasized (Devos, Buelens, & Bouckenooghe, 2007; Van Dam, Oreg, & Schyns, 2008; Van der Voet, Kuipers, & Groeneveld, 2016). Moreover, in the literature on Human Resource Management, it has been argued that "actual policies" (see the first point on "enactment") are mostly implemented by front line managers (Bos-Nehles, 2010; Knies, 2012; Leisink & Knies, 2011).

Moreover, the findings indicate that the middle management (the manager above the front line manager) plays a (indirect) role in the enforcement process as well. The results of the first qualitative study (chapter 5) indicate that the nurse team leader was in some cases him- or herself forced by the care manager at the division level. This indicates that managers at different levels played different roles; whereas the front line leader played a direct role by forcing the individuals working in his or her department to comply, the middle managers played an indirect role in "managing the manager". This is supported by literature in the field of strategy implementation, where it has been found that the middle manager –located below top managers and above front line managers (Dutton & Ashford, 1993) – plays an important role as connector between top and operating-level management (Balogun, 2003; Nonaka, 1994; Wooldridge, Schmid, & Floyd, 2008). In this position, middle managers can function as mediators between the organization's strategy and day-to-day activities (Currie, 1999; Nonaka, 1994; Nutt, 1987). The finding that both front line and middle managers can play a role in the enforcement process emphasizes the importance of *management at all levels* of the organization. The insights on management at different levels add to the management control literature by showing that enactment is not only crucial, but that it also needs to be done at different levels of the hierarchy. This dissertation therefore adds to the call by Sitkin and colleagues (Sitkin et al., 2010a, p. 13) that research is needed on "how control functions work at different levels of analysis".

The results from both chapters 5 and 7 also indicate that only leaders of physicians can take actions to enforce physicians. As several nurses explained in chapter 5, they did not have authority over medical professionals. Similarly, my findings from chapter 7 indicate that in the enforcement situation where the front line leader of the nurses reminded the physicians, there was only "instrumental" or "ceremonial" compliance by the physicians. These findings suggest that attempts to "substitute" enforcement with other enforcement actors are not effective in ensuring compliance. This can be explained by the fact

that nurses are "functionally subordinate" (Glouberman & Mintzberg, 2001) to physicians and therefore do not have authority over physicians. Since authority – the right to make decisions for the organization – is one of the key elements of leadership (Yukl, 2013), nurse team leaders cannot effectively "manage" physicians. This indicates that, in addition to the importance of enactment at all levels, there also needs to be enactment by all professional occupations.

Now I have critically reflected on the main findings of this dissertation, I will turn to a critical reflection on my research approach in the next section.

8.3 CRITICAL REFLECTION ON THE RESEARCH APPROACH

As I explained in the introduction (chapter 1) of this dissertation, my research approach can be characterized by the integration of management control and enforcement literature, and by the use of an engaged scholarship approach. In this section, I will reflect critically upon the theoretical and methodological approach that has been central to this dissertation.

Reflecting on the use of enforcement theory

I used insights from regulatory enforcement literature (Ayres & Braithwaite, 1992; Braithwaite, 1985; Gormley, 1998; Kagan, 1994; Mikkelsen et al., 2017; Reiss, 1984; Shover et al., 1984) to investigate different ways to enforce the quality and patient safety policies of an accreditation – or bureaucratic control – system. The main advantage of using this theoretical lens is that it distinguishes two broad approaches to rule enforcement. Whereas the punishment approach is in line with the usual view on bureaucratic systems, the persuasive approach provides an alternative view of studying rule enforcement. Second, the enforcement literature focuses on ensuring compliance with regulatory policies. It is therefore highly applicable to studying compliance with the policies of an accreditation system. Third, the literature on enforcement styles focuses on the day-to-day interaction between regulatory agency inspectors (for example, inspectors from the health care inspectorate) and regulated entities (for example, hospitals) (May & Winter, 1999, 2011; May & Wood, 2003). Some authors (May & Winter, 2009; May & Wood, 2003) have even referred to this interaction between inspectors and regulated entities as "the regulatory front line". This focus on day-to-day interaction (rather than, for example, strategies or intentions) has been highly useful for investigating the actions used in the interaction between front line leaders and health professionals. In sum, using regulatory enforcement literature provided me with a useful "way forward" to investigate different ways to enforce rules of a bureaucratic control system. This has resulted in a model that specifies Weibel's (2010) notion of a "high-motivation control system".

Using regulatory enforcement literature, however, also had its downsides. First, as several authors have argued, enforcement style is easily understood in abstract, but hard to pin down in specifics (May & Winter, 2000). I also encountered this difficulty when defining the two styles; most authors only briefly mention two very broad categories without defining specific behaviors. Whereas the category of punishment seems more clear and straightforward, it seems especially difficult to demarcate what is persuasion and what is not. Second, the enforcement literature (May & Winter, 2009; May & Wood, 2003) focuses on the interaction between inspectors and regulated entities. This "enforcement setting" differs from the setting of the front line leader, who has to enforce rules on a more daily basis. As the results indicate, actions taken on a more daily basis can also include using more structural improvement methods, such as senior nurses or the patient round. Such methods are more difficult to "fit into" the two broad enforcement styles. Third, it is questionable whether punishment (or threats thereof) can actually be used in a hospital context, since clinical leaders are typically in a collegiate than a hierarchical relationship with physicians (Thorne, 1997; Witman et al., 2010). This relationship is based on informal power rather than formal power, since physicians are only accountable to their professional organizations and their patients (Kitchener, 2000). As a result, medical department heads only have limited means for punishment (or threats thereof). This implies that the category of punishment might not be a feasible category in a professional organizational context. However, this might not have to be an issue, since the enforcement literature (Hutter, 1989; Scholz, 1984) indicates that regulatory inspectors also prefer to use persuasion.

These disadvantages might suggest that choosing a different theoretical lens would have been more useful. Some logical alternative streams of literature are implementation science[31] (Eccles & Mittman, 2006; Fixsen et al., 2005; Grol et al., 2013) and change management literature (Armenakis & Bedeian, 1999; Barends, Janssen, ten Have, & ten Have, 2014; By, 2005). However, both streams of literature seem to focus on finding optimal *strategies* for the implementation of change. In the change management literature, many authors refer to persuasive communication and participation as effective means to ensure change (Armenakis, Harris, & Mossholder, 1993; Fernandez & Rainey, 2006; Georgalis, Samaratunge, Kimberley, & Lu, 2015; Rafferty & Restubog, 2010; Self, Armenakis, & Schraeder, 2007; Van Dam et al., 2008; Van der Voet et al., 2016). In addition, in the implementation science literature, the main recommendations for implementation strategies include education, reminders, and audit and feedback (Grol & Grimshaw, 2003; Johnson & May, 2015). Based on their focus on strategies and instruments, both

31 Implementation science is the scientific study of methods to advance the systematic uptake of evidence-based practices into routine clinical practice to improve the quality of health services and care (Nilsen, 2015; Nilsen et al., 2013).

change management literature and implementation science pay only limited attention to the *enactment* of these strategies by front line managers (Birken et al., 2012, 2013; Van der Voet, Kuipers, & Groeneveld, 2017). I therefore do not consider these streams of literature viable alternatives.

In sum, although using insights from the regulatory enforcement literature had both advantages and disadvantages, I argue that it has enabled me to study different ways – and their effectiveness – to enforce the rules of a bureaucratic control system. Below, I will reflect on the advantages and disadvantages of the engaged scholarship approach.

Reflecting on the use of engaged scholarship

The use of engaged scholarship is what distinguishes this dissertation from "traditional" or "detached" studies. Central to the use of an engaged scholarship approach (Barge & Shockley-Zalabak, 2008; Small & Uttal, 2005; Van de Ven, 2007; Van de Ven & Johnson, 2006) is the use of both "practical" and "theoretical" knowledge to provide a deeper understanding of the problem investigated. Although this approach has several advantages compared to "traditional" research, it also has some downsides and caveats.

Engaged scholarship has some advantages compared to "traditional" research or "status-quo approach", which is characterized by researchers studying research questions alone, without being informed by practitioners who could contribute to understanding the problem being investigated (Van de Ven, 2007). First, engaged scholarship provides a deeper insight than that obtained through traditional research. For example, UCM Utrecht's practical knowledge has contributed to deeper insights during the design, collection and analysis of the three studies included in this dissertation. The input from practice allowed me to select relevant cases and actors for my empirical data collection. Without incorporating the practical knowledge on the accreditation and its different policies, and the strategy and actions of the quality and patient safety department, it would have been more difficult for me as an "outsider" to find these relevant cases. In addition, the "practical" knowledge aided me during the interviews with health professionals. Due to the broad range of policies that was included in the tracer case, for example, knowledge about all of these policies was needed to ask specific questions about enforcement actions and compliance. Moreover, practical knowledge benefitted me in the analysis of the data. This was for example needed to tease out the subtle differences between compliance and non-compliance and to understand some "professional" practices, such as the role of patient rounds, that were used to enforce quality and patient safety policies. Second, using an engaged scholarship approach contributed to producing knowledge that meets the dual hurdles of relevance and rigor for theory and practice (Hodgkinson, Herriot, & Anderson, 2001; Pettigrew, 2001). Whereas investigating bureaucratic control systems might seem outdated from a theoretical perspective, the observation that implementing such systems was both obligatory *and*

a challenge for practice made me aware of the fact that more sophisticated research into management control was still highly relevant and could benefit from theoretical and empirical refinement. Third, the engaged scholarship approach explicitly allows room for flexibility to deal with issues that arise in practice. For example, the flexibility of the approach allowed me to adapt my data collection and analysis to insights arising from the initial data collection in the first empirical chapter (chapter 5). Moreover, thanks to the flexible approach I was able to incorporate insights from the first two studies into the research design of the third study. Based on this flexibility, I was able to incorporate the issue of the role of front line leader motivation and the role of higher-level managers in the enforcement process into the third empirical study.

However, there are also downsides to the use of an engaged scholarship approach. First, engaged scholarship is more challenging. As Van de Ven (2007) explains, engaged scholarship is difficult because it can lead to interpersonal tensions and cognitive strains that come with putting together scholars and practitioners with different views and approaches to a problem. For me as a researcher, this implied that trying to understand both practical insights about the hospital context and the topic of quality and patient safety would be difficult to combine with theoretical insights on the enforcement of bureaucratic control systems. According to insights into interdisciplinary work (Leahey, Beckman, & Stanko, 2017), investing in multiple categories of knowledge limits mastery and dilutes quality. Moreover, it might also be more difficult for audiences to understand both the practical and theoretical knowledge that is incorporated into this dissertation, since grasping insights from other sources of knowledge is "cognitively taxing and time-consuming". For example, it was difficult to find the right outlet for my research, since audiences that were more familiar with issues of patient safety in hospitals did not consider my specific theoretical approach, and audiences that were more familiar with my theoretical approach did not always have sufficient background knowledge about the hospital context and the topic of quality and patient safety. Second, the extensive amount of direct and personal investigation required to become acquainted with the dimensions and context of a phenomenon should not be underestimated. This implies that an engaged project takes more time than an unengaged project, leading to less time that can be spent on other scholarly activities. In this dissertation, for example, I originally planned to include four empirical studies, but this was not possible due to my underestimation of the time that it would cost to be engaged with practice. Moreover, less time was available for other scholarly activities, such as attending conferences and writing and submitting journal articles. In sum, increased complexity and the need to spend time at the research site imply that an engaged project may be "less productive" when measured in number of journal articles (Leahey et al., 2017; Van de Ven, 2007). Since the publication of journal articles is important for a career as a researcher, this might have negative implications for researchers, particularly those in the early phases

of their career. Therefore, I argue that another appreciation of research by institutions is needed to enable individual researchers to choose such a different approach (Hodgkinson et al., 2001; Van de Ven & Johnson, 2006). More specifically, this means that not only the number of academic journal articles should be appreciated, but also the impact of these articles on both academia and practice. Moreover, contributing to practice could be made a more important part of "research performance" than it currently is.

All in all, using an engaged scholarship approach has both advantages and disadvantages when compared to more "traditional" research. As a result, this dissertation should be seen as complementary to other studies that have been conducted on the management of quality and patient safety in a hospital context. Below, I will turn to a discussion of the limitations of this dissertation.

8.4 LIMITATIONS

Despite the strengths of this dissertation, there are some limitations to be pointed out. Below, I will discuss the four main limitations of this dissertation.

First, as I have explained extensively throughout this dissertation, this study was conducted at a single university medical center. Whereas the engagement with UMC Utrecht allowed me to improve my understanding of the specific context of this hospital, it also limits the generalizability of my findings. My findings could for example be partly the result of UMC Utrecht's structure, culture, or implementation strategy. Studies on the implementation of innovations have for example found that organizational determinants such as centralization and formalization have an impact on innovation (Damanpour, 1991). In addition, the strategy to implement an accreditation system at UMC Utrecht consists of two monitoring instruments and emphasizes enforcement by front line leaders. Since it is likely that other hospitals have other strategies for their quality and patient safety management (Alingh, 2018; Alingh, Van Wijngaarden, Paauwe, & Huijsman, 2015), the generalizability of my findings as regards hospitals with other strategies might be limited. Moreover, since UMC Utrecht is an academic medical center, its specific tasks – including care for highly complex patients and providing professional education for physicians – might limit the generalizability of my findings as regards other types of hospitals. Finally, I focused my data collection mainly on medical and the nursing professionals. The results can therefore not be generalized as regards other types of health professionals that are employed in hospitals, such as non-nursing medical employees (including X-ray and endoscopy technicians, medical laboratory assistants, surgical technologists and therapists) and support or assisting employees (including nursing aides or medical office assistants) (Van Harten, 2016).

Second, I only used a limited amount of cases to collect data. Although this allowed me to use specific quality and patient safety policies as a "vehicle" to collect data on specific enforcement actions and compliant behavior, it also posed limits to the generalizability of the findings as regards the implementation of other quality and patient safety policies. Moreover, the content of a policy has been found to be an important determinant of compliance (Nilsen, 2015; Wensing, Bosch, & Grol, 2013). Similarly, the organizational control literature indicates that attitudes on formal control depend on whether policies are perceived to be "good" or "bad" (Adler & Borys, 1996). Moreover, due to my focus on including cases based on monitoring instruments and actions, I included certain types of quality and patient safety policies. First, these policies were applicable to a broad range of medical specialisms. This could also have led to a selection of policies that were perceived more negatively since they were a "one-size-fits-all" solution rather than specifically applicable to certain medical specialisms. In addition, the fact that monitoring was applied in all these cases might have influenced the way in which health professionals perceived the enforcement of policies. Moreover, the treatment plan policy that was investigated in the second qualitative case was implemented quite recently. This might have resulted in an overestimation of the rate of non-enforcement and non-compliance, since the policy was not yet implemented in the medical departments. However, since I did take care to carefully select the cases and to use "practical knowledge" from UMC Utrecht in doing so, I argue that this drawback is limited compared to the advantage of asking concrete questions about enforcement actions and compliant behavior.

Third, all three studies faced the issue of non-response. In the survey, the sample was not representative for all physicians working in the research organization, potentially leading to a non-response bias (Baruch & Holtom, 2008). One explanation could be that physicians working in divisions where the issue of most responsible physician is more salient (such as with complex patients from the internal medicine department) were more inclined to participate in the survey. This non-response bias could pose a threat to the generalizability of the results of this study. However, the non-significant ANOVA tests on the key variables included in this study indicated that the non-response bias was probably limited. In the first qualitative study, it was not possible to interview all involved team leaders. This could have led to a selection bias, where especially the team leaders with positive attitudes towards the tracers were selected. However, since some interviewed team leaders were quite critical about the tracers and the accreditation system of the hospital, the bias might be limited. In the second qualitative chapter, some respondents did not reply to the invitation to participate in the interviews. Therefore, some departments had to be excluded from the data analysis, since I could not include a sufficient amount of respondents to obtain a reliable picture of how enforcement "works" in these departments. This could have led to a selection bias (e.g. if these departments were non-compliant and therefore not willing to participate). However, since I did speak

to several physicians and medical department heads that were non-compliant, this bias is probably limited.

Fourth, I was not able to observe compliance. Rather, the degree of compliance was based on what respondents themselves indicated. In the quantitative study, for example, I asked respondents how often they took certain actions when they were a most responsible physician. Since it is highly likely that the physicians knew that this question was about their compliance with the policy, it is possible that they provided socially desirable answers. Similarly, in the second qualitative study, it was in the interest of both the medical department head and the physicians working in the department to indicate a high level of compliance. However, in this study I was able to ask three actors (one medical department head and two physicians) about the same behaviors. In addition, I asked them to explain to me what they did exactly, including examples. As a result, it was easier to filter out socially desirable answers. Moreover, using other measures for compliance also have their drawbacks. Using the "objective" data available mainly provided insights into the question whether health professionals "ticked the box" of registering the most responsible physician in the patient file, without saying anything about their actual compliance. Similarly, using other ratings such as patients' perceptions might lead to an underestimation of compliance, because patients might not always recognize compliance. This is in line with the issue of having reliable sources of compliance that is commonly encountered in studies on compliance (May & Winter, 2011; Parker & Nielsen, 2009b, 2011). As a result, considering the difficulties related to observing compliance, I argue that asking health professionals about their own compliance is acceptable.

Fifth, there are some limitations to the measurement scales used in the survey. First, the measurement scale for perceived enforcement was – as Mikkelsen and colleagues (2017) themselves concede – "less than fine-grained", potentially making it difficult to make good distinctions between the different types of enforcement. In addition, I only used one item to measure punitive enforcement, since the other item of the punishment-scale focused on the monitoring of compliance. I chose not to include the item on monitoring, since it was not in line with my theoretical focus on enforcement actions only[32]. Second, due to the difficulties of finding a motivation scale that was applicable to measuring motivation to comply with a specific policy (rather than general work motivation), I used a commitment to change scale to measure motivation. Although this enabled me to use a validated scale that matched my specific research interest, it

32 As I explained in the theoretical framework (chapter 3), I defined a bureaucratic control system as formulating, monitoring and enforcing rules. Whereas some authors view monitoring as part of control (Kirsch, 1996), I follow Eisenhardt (1985), who argues that monitoring is an information system rather than the actual process of control.

is advisable to measure concepts with the measurement scales that belong to these concepts. Moreover, the factor analysis indicated some issues with the measurement scale of continuance commitment. The difficulties with continuance commitment might be the result of the concept having a different meaning in a professional context, where the organization has fewer means to pressure professionals. In sum, although there are some limitations to the measurement scales that I used in the survey, I argue that these limitations do not outweigh the alternative of using non-validated measurement scales.

8.5 FUTURE RESEARCH

Based on the discussion and limitations of this study, I recommend four avenues for future research.

First, future research could sophisticate the conceptualization and operationalization of enforcement actions. As I have shown in the critical reflection on enforcement literature and in the limitations of this study, there is more to learn about the specific actions within the "non-punishment" enforcement. To find out what front line leaders *do*, more sophisticated insights from the field of regulatory enforcement could be used. Responsive regulation (Ayres & Braithwaite, 1992), for example, presents an enforcement pyramid with a whole range of enforcement actions, from persuasion at the bottom of the pyramid to punishment at the top. Alternatively, insights from other bodies of literature could be helpful as well. Within the leadership literature, Yukl and colleagues (Yukl, 2013; Yukl, Chavez, & Seifert, 2005; Yukl, Seifert, & Chavez, 2008), for example, distinguishes eleven "proactive tactics", which is behavior intentionally used to gain acceptance of a request or support for a proposal. Examples of tactics include rational persuasion (using logical arguments as factual evidence), consultation (encouraging the target to suggest improvements in a proposal) and coalition (seeking the aid of others). An alternative typology of proactive tactics – called the Profiles of Organizational Influence Strategies – has been developed by Kipnis, Schmidt and Wilkinson (1980). This typology includes actions such as exchange, coalition and rationality and has been used in many studies on proactive tactics (Ammeter, Douglas, Gardner, Hochwarter, & Ferris, 2002; Yukl, 2013). Moreover, in this dissertation I have only focused on the enforcement of rules, without explicitly considering the formulation of rules and the monitoring of compliance. Future research could focus on these aspects of the bureaucratic system as well. As Weibel (2010) shows, the formulation of rules and the monitoring of compliance can also be done in ways that contribute to – or undermine – the development of intrinsic motivation. Since the formulation of rules and the monitoring of compliance are more likely to differ between organizations, this implies that future research should include several organizations in order to investigate these aspects of the bureaucratic system. In addi-

tion to using more sophisticated insights from academia, using practical insights is also highly important to advance our understanding of enforcing a bureaucratic rule system.

Second, future research could provide more insights into the relation of different enforcement actions with motivation and compliance. As I argued in the limitations section, there are limitations associated with my findings on the relation between enforcement actions and compliance. Therefore, I suggest that future research further evaluates the effectiveness of different enforcement actions. Based on the methodological limitations that I have encountered in this dissertation, I suggest using alternative ways to study compliance. Ideally, this includes directly observing behavior; preferably this is done secretly, so that the subject does not change his or her behavior because the researcher is watching (Parker & Nielsen, 2009b). However, in practice, this might be impractical – since it costs a lot of time and resources to be present in the research setting to observe sufficient behaviors – and ethically unacceptable. Alternatively, other sources of compliance might be used, such as the results of compliance monitoring or the ratings of different actors that can observe compliance (for example, colleagues, patients, and supervisors). Either way, I recommend using insights from practitioners to define, operationalize and measure compliance in future studies. Moreover, given the limitations of the way I measured motivation in the quantitative study, I suggest that future research investigates the relation between enforcement actions and motivation with a measurement scale that focuses on different types of motivation about quality and patient safety policies.

Third, future research would benefit from further investigating the role of management at all levels in the enforcement process. This is in line with the general call within the organizational control literature to pay more attention to how control functions at different levels of analysis (Sitkin et al., 2010a). Since the insights from this study suggest a direct role for the front line manager and a more indirect role for the middle manager, I recommend that future research does not only consider these actors, but also the different roles and actions that they play in the enforcement process. This could make combining insights from different fields of study useful. On the one hand, insights from "managerial" literature on the role of the middle manager in strategy implementation (Balogun, Huff, & Johnson, 2003; Floyd & Wooldridge, 1992, 1994; Nutt, 1987; Wooldridge et al., 2008) or on the role of the front line manager in change management (Van Dam et al., 2008; Van der Voet et al., 2016) could be helpful. On the other hand, insights from "professional" literature (Noordegraaf, 2011) on "professionals in the lead" (Witman et al., 2010) or "professional-managerial hybrids" (Noordegraaf, 2007, 2011) – professionals engaged in managing professional colleagues (Fitzgerald & Ferlie, 2000; McGivern, Currie, Ferlie, Fitzgerald, & Waring, 2015) – could provide useful insights into the managerial roles and actions of clinical front line leaders. Moreover, the findings suggest that whereas most nurse front line and middle managers take enforcement actions, medical

front line leaders do not. Future research could therefore pay more attention to investigating both groups of front line leaders (cf. Fitzgerald et al., 2006). In sum, I recommend that future research provides an in-depth study of the actual enforcement behaviors of different managers (nurses and physicians) at different levels (lower, middle, and higher) of the organization.

Fourth, I suggest that future research further investigates the factors that explain why front line leaders use certain enforcement actions. The findings from this dissertation suggest that the motivation of front line leaders and whether there is a possibility for consequences (by the level of management above) play a role in whether they enforce quality and patient safety policies in their department. Since these are only some first and exploratory insights, I suggest that future research pays more attention to further investigating these and other possible explanations for front line leader actions. In addition to investigating the role of the manager above the front line leader (see previous paragraph), future research could further investigate the role of front line leaders' motivation to take enforcement action and how this motivation has developed. General insights on how different types of motivation develop – for example from self-determination theory (Ryan & Deci, 2000) – might be a useful starting point. Moreover, future research could investigate more factors that could explain front line leaders' actions. Insights from the field of Human Resource Management (HRM), for example, suggest that whether front line leaders implement HRM practices depends not only on their motivation, but also on their ability (for example, the skills and knowledge) and opportunity (for example, having sufficient autonomy and time) to do so (Bos-Nehles, 2010; Knies, 2012). Moreover, future studies might benefit from taking into account specific factors that are relevant for leaders of professionals. These studies indicate, for example, that medical front line leaders have a low commitment to their management role (Fitzgerald et al., 2006; Guthrie, 1999; Hoque, Davis, & Humphreys, 2004). Moreover, the literature on clinical front line leaders suggests that these front line leaders also lack the skills (Hoque et al., 2004) and the time, since they carry out their management responsibilities part-time alongside their clinical practice (Fitzgerald et al., 2006; Hunter, 1992; Kitchener, 2000). In addition to using theoretical insights about specific challenges for professionals in general, I recommend that future research also uses practical insights into specific challenges that professionals face in their organizational context.

To conclude, the above recommendations focus on theoretical avenues that are promising for future research. In addition to these theoretical avenues, I also recommend that future research uses an engaged scholarship approach in order to obtain deeper and more insightful insights into these issues. By doing so, however, I recommend that researchers keep in mind the caveats of the engaged scholarship approach that I pointed out in section 8.3. Below, I will turn to the practical implications of this dissertation.

8.6 PRACTICAL IMPLICATIONS

Based on the findings of this dissertation, there are several implications for UMC Utrecht's quality and patient safety department and the executive board. The main reason for focusing on these actors at UMC Utrecht was because the quality and patient safety department and the executive board were the main partners of the research collaboration. Moreover, due to the limits to generalizability of the findings of this study, I consider it more appropriate to formulate implications for UMC Utrecht specifically, rather than for hospitals in general. This does not mean, however, that quality and patient safety departments and boards of directors of other hospitals cannot learn from these practical implications.

Quality and patient safety department

The results of this dissertation imply that the formulation of policies and the monitoring of compliance are only the first steps in the implementation of an accreditation system. After these steps, the hospital is dependent upon the middle and front line leaders to take action; if they do not take enforcement action, there is no compliance with the quality and patient safety policies. This implies that it is important that the quality and patient safety department does not only focus on formulating policies and monitoring compliance, but also on supporting the middle and front line managers that have to enforce these policies. The findings of this dissertation suggest that a bureaucratic rule system is most effectively enforced without punishment or threats thereof. Therefore, my main recommendation is that the use of persuasive enforcement action by the front line leaders should be embraced and encouraged. Doing so has several implications. First, since implementing change through persuasive action might take more time than through punishment action (Thorne, 1997), more time and a certain degree of patience are needed. To gain more time, the quality and patient safety department has to ensure that policies are written in a timely manner and that monitoring for compliance starts when front line leaders have actually started enforcing new or existing quality and patient safety policies. Second, the quality and patient safety department could show front line leaders that persuasive enforcement action is an effective way to enforce quality and patient safety policies and provide the front line leaders with insights into the variety of enforcement actions that might be helpful when enforcing quality and patient safety policies. These insights on effective enforcement actions could be combined with the training on the content of the quality and patient safety policies and the training on leadership that all front line leaders already receive. Third, front line leaders could be supported with coaching and peer feedback. These instruments are already available in UMC Utrecht's leadership program *Connecting Leaders* (see chapter 2), and could therefore easily be applied to the specific topic of the enforcement of quality and patient

safety policies. Whereas the tracers (see chapter 5) already support front line leaders with tips and tricks and explanations about policies, additional peer review cold focus on discussing how to effectively take persuasive action.

However, the importance of "well begun is half done" should not be underestimated. Therefore, it is also important to support front line leaders with accurate and meaningful monitoring information. As the results of the tracer chapter (chapter 5) indicated, front line leaders could not act upon some issues because these issues were not an accurate representation of compliance of the ward. Moreover, the monitoring of the tracers did often not even reach the front line leaders of the physicians, since they were not encountered at the wards. This implies that the provision of monitoring input to front line leaders could be improved. In addition to improving the monitoring information provided by the tracers, the quality and patient safety department could also support the front line leaders with monitoring the compliance of the health professionals working in their department. As the findings of the second qualitative chapter (chapter 7) indicated, some medical heads collected monitoring information themselves. Making it easier for department leaders to do so could contribute to other front line leaders monitoring and taking enforcement action as well.

In sum, my recommendation for the quality and patient safety department is to support front line leaders in taking persuasive enforcement action.

Executive board

First, the findings from this dissertation suggest that bureaucratic control systems do not necessarily have a negative impact on health professionals' intrinsic motivation. In combination with studies that emphasize the advantages of bureaucratic systems, such as their ability to enable employees to perform their tasks better by reducing role conflict and ambiguity (Adler & Borys, 1996), this suggests that there might be more positive sides to accreditation than it seems. Nowadays, however, the tendency in the field seems to be that bureaucratic systems and their rules have led to a large amount of additional policies and protocols, and increased monitoring and accountability demands. The reaction to this tendency is that rules should be abolished in order to have more time for patient care (Meurs, 2014). Based on the findings of this study, I argue that it might be too simple to "blame the system", because there might be large differences in the enactment of the system. The recommendation therefore is to focus on ensuring that the system is enacted in a way that contributes to health professionals' motivation and compliance. As I argued in the previous section, one way to do so is by developing and supporting front line leaders in taking persuasive action. An additional way to do so is by motivating health professionals about quality and patient safety and their continuous improvement. The program "*Samen voor de Patient*" ("Together for the Patient") that has been introduced as part of UMC Utrecht strategy (see chapter 2) provides additional

elements – such as teams setting their own goals and supervisors supporting employees to do their work in the best way possible – that are promising means to ensure health professionals' motivation.

Second, the results imply that there is a crucial role for hospital management to ensure that front line leaders take enforcement action. As the findings of this dissertation indicate, front line leaders – and especially medical department heads – often do not take any enforcement action. As a result of this "non-enforcement", medical professionals in these departments do not comply with quality and patient safety policies. Based on the findings of this dissertation, two important "levers" can be used to stimulate enforcement action by front line leaders: ensuring that front line leaders themselves are forced to comply, and increasing their motivation to take enforcement action. The first lever implies that the executive board has to force managers at the division level to comply, and managers at the division level have to force front line leaders to take enforcement action regarding the health professionals working in their department. In line with the central argument of this thesis that enforcement can be enacted in different ways, I want to stress that forcing the compliance of division and department leaders does *not* imply that managers at higher levels should use punishment or threats thereof to control their subordinates. Several programs that have been introduced as part of UMC Utrecht's Connecting U strategy (see chapter 2) can support enforcement at all levels. The *Connecting Leaders* program that aims to develop leadership can contribute to developing the leadership skills and repertoire needed to take enforcement action. Moreover, the new organizational structure with dual management at the division level can contribute to a more decisive management that is better able to force the compliance of the front line management below them. The second lever implies that front line leaders that are motivated to take enforcement action will do so. Therefore, I suggest that it is important to increase front line leaders' motivation regarding quality and patient safety policies. Hospital management can show that they find quality and patient safety important. One way in which UMC Utrecht is already showing this importance is the inclusion of a wide range of indicators related to quality and patient safety in the Key Performance Indicators (KPIs). Other ways to do so include communicating quality and patient safety in word and deed (Weiner, Shortell, & Alexander, 1997) and "leading by example". Moreover, hospital management can motivate middle and front line managers to enforce quality and patient safety by including it as a theme in the performance evaluation.

8.7 TO CONCLUDE

The aim of this thesis was to provide a deeper understanding of bureaucratic control systems in a hospital setting by investigating whether and how enforcement action is

related to compliance with quality and patient safety policies. In considering the topic of bureaucratic control in a hospital context, I have used an engaged scholarship approach to incorporate both academic and practical knowledge in all phases of the research process. I hope that both the engaged scholarship approach and the topic of this thesis will provide food for thought and inspiration for both academics and practitioners working on the topic of accreditation implementation.

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Appendix I

Interview protocols for study 1

INTERVIEWS WITH TRACER EMPLOYEES

Introduction

- Introduce myself as a PhD student at UMC Utrecht and Utrecht University
- Brief background on the topic: interested in how policies are implemented in such a large organization. Interested in how it works, not whether you are doing the "right" thing
- Ask consent for recording the interview and explain confidentiality of the data

Background

- What is your function at the hospital?
- What is your vision on quality and safety at the hospital?
- What is your experience as a tracer employee?

Tracer style

- What is your approach to tracers in general?
- What was your approach to this specific tracer?
    - Focused on punishment or threats thereof?
    - Focused on providing support?

Reasons for style

- Is your approach always the same? Why or why not?
    - Differences between traced wards
    - Differences between policies

Other

- Are there any other factors that play a role in your execution of tracers?

INTERVIEWS WITH NURSE TEAM LEADERS

Introduction

- Introduce myself as a PhD student at UMC Utrecht and Utrecht University
- Brief background on the topic: interested in how policies are implemented in such a large organization. Interested in how it works, not whether you are doing the "right" thing
- Ask consent for recording the interview and explain confidentiality of the data

Background

- What is your function at the hospital?
- What is your vision on quality and safety at the hospital?
- What are your experiences with tracers?

Perception of tracer

- Can you tell something about your experience of the tracer of [date]? Did anything stand out?
- How did you experience the approach of the tracer employees?
    - Focused on punishment or threats thereof?
    - Focused on providing support?

Behavior

- Did you take action or are you going to take action based on the tracer outcome?
    - What action?
    - How?
    - Why or why not?

Other

- Are there any other factors that play a role in your experience of tracers and whether you take action based on tracer results?

Appendix II

Questionnaire for study 2[33]

33 Since this survey was also used to provide feedback to the council of medical staff about the implementation of the most responsible physician policy, the survey includes more items than used in the analyses of chapter 6. Moreover, since I used an electronic survey, this appendix only reflects the content of the survey and not the layout.

HOME SCREEN

Dear Sir/Madam,

This questionnaire is intended for medical specialists who are eligible to be a most responsible physician for **clinical** patients.

The questionnaire consists of three questions (with sub-questions). Participation will take between 5-10 minutes. Answering the questions can be interrupted at any time, and then resumed at a later time. The survey closes at midnight on **13 September**.

It is important that you answer the questions as honestly as possible. Your answers will be treated **confidentially** and will only be accessible to the PhD student concerned. The results will only be published as summaries, so that results can never be traced to individual persons. The data will be used for the doctoral research of the researcher and not for judging medical specialists or specialisms.

For questions about this research, please contact Ulrike Weske, researcher-in-training (u.weske@umcutrecht.nl).

Thank you in advance for your cooperation!

QUESTION 1

Can you please indicate how often you carry out the following tasks yourself for inpatients for whom you are the most responsible physician?

	Never			Sometimes			Always
Communicating with the patient (and his or her relatives) about the progress of the treatment	1	2	3	4	5	6	7
Actively propagating that I am the contact person for the patient and the other care providers involved	1	2	3	4	5	6	7
Ensuring that it is clear to the patient and other care providers involved that I am the most responsible physician	1	2	3	4	5	6	7
Determining the diagnosis	1	2	3	4	5	6	7
Formulating the treatment plan and goals	1	2	3	4	5	6	7
Obtaining an overview of the progress of the treatment	1	2	3	4	5	6	7
Overseeing the totality of care provided to the patient	1	2	3	4	5	6	7
Evaluating and if necessary adjusting the treatment plan and goals	1	2	3	4	5	6	7
Checking whether other care providers are authorized and competent	1	2	3	4	5	6	7
Ensuring that I am informed by other care providers timely and sufficiently often	1	2	3	4	5	6	7
Providing information to other care providers	1	2	3	4	5	6	7
Ensuring the coordination of care for the patient **within** my medical specialism	1	2	3	4	5	6	7
Ensuring the coordination of care for the patient **with other** medical specialisms	1	2	3	4	5	6	7
Transferring the most responsible physician role **within** my medical specialism	1	2	3	4	5	6	7
Transferring the most responsible physician role **to another** medical specialism	1	2	3	4	5	6	7
Transferring the most responsible physician role **to outside** UMC Utrecht	1	2	3	4	5	6	7
Checking whether the treatment goals have been achieved	1	2	3	4	5	6	7
Coordinating the patient's discharge	1	2	3	4	5	6	7

How many inpatients are you currently the most responsible physician for?
Please state your answer:

Do you have any comments or questions?

QUESTION 2

The following questions are about your experiences with the implementation of the most responsible physician policy at UMC Utrecht. Please indicate to what extent you agree with the following statements.

During the implementation of the most responsible physician policy…

	Strongly disagree			Undecided			Strongly agree	No opinion
… suggestions were made to medical specialists about being the most responsible physician	1	2	3	4	5	6	7	
… supervisors urged each and every employee to get acquainted with the policy	1	2	3	4	5	6	7	
… situations were created in which individual learning was stimulated	1	2	3	4	5	6	7	
… the emphasis was on increasing the motivation and involvement of medical specialists	1	2	3	4	5	6	7	
… dialogue took place with medical specialists about being the most responsible physician	1	2	3	4	5	6	7	
…there was strict monitoring by general management or the board	1	2	3	4	5	6	7	
… the emphasis was on controlling and directing	1	2	3	4	5	6	7	
… medical specialists were stimulated and inspired to use and accept the policy	1	2	3	4	5	6	7	
… it was demanded that medical specialists are the most responsible physician	1	2	3	4	5	6	7	
… the aim was to make the policy appealing to each and every medical specialist within the organization	1	2	3	4	5	6	7	
… it was monitored whether medical specialists were most responsible physicians	1	2	3	4	5	6	7	

Do you have any comments or questions?

A

QUESTION 3

The following statements are about your attitude towards the most responsible physician policy. Please indicate to what extent you agree with the following statements.

	Strongly disagree			Undecided			Strongly agree	No opinion
The most responsible physician policy serves an important purpose	1	2	3	4	5	6	7	
I have **no** choice but to go along with the most responsible physician policy	1	2	3	4	5	6	7	
I think that management made a mistake by introducing the most responsible physician policy	1	2	3	4	5	6	7	
I feel a sense of duty to work towards the most responsible physician policy	1	2	3	4	5	6	7	
Things would be better without the most responsible physician policy	1	2	3	4	5	6	7	
The most responsible physician policy is **not** necessary	1	2	3	4	5	6	7	
I believe in the value of the most responsible physician policy	1	2	3	4	5	6	7	
I have too much at stake to resist the most responsible physician policy	1	2	3	4	5	6	7	
I would **not** feel badly about opposing the most responsibly physician policy	1	2	3	4	5	6	7	
It would be irresponsible of me to resist the most responsible physician policy	1	2	3	4	5	6	7	
I feel pressure to go along with the most responsible physician policy	1	2	3	4	5	6	7	
I do **not** feel any obligation to support this change	1	2	3	4	5	6	7	
The most responsible physician policy is a good strategy for this organization	1	2	3	4	5	6	7	
I do **not** think it would be right of me to oppose the most responsible physician policy	1	2	3	4	5	6	7	
It would be too costly for me to resist the most responsible physician policy	1	2	3	4	5	6	7	
It would be risky to speak out against the most responsible physician policy	1	2	3	4	5	6	7	
Resisting the most responsible physician policy is **not** a viable option for me	1	2	3	4	5	6	7	
I would feel guilty about opposing the most responsible physician policy	1	2	3	4	5	6	7	

Do you have any comments or questions?

ENDING MESSAGE

Dear Sir/Madam,

Thank you for participating in this survey. We appreciate the time you have taken to fill in the survey.

The survey closes at midnight on 13 September. If you have any additions, you can add them until that time via your personal link.

After the data has been processed, you will receive feedback on the results.

Sincerely,

Ulrike Weske, MSc
Researcher-in-training, UMC Utrecht and Utrecht University

Dr. Liesbeth van Rensen
Senior researcher, Quality & Patient Safety directorate, UMC Utrecht

Prof. dr. Paul Boselie
Professor of Strategic Human Resource Management, Utrecht University

Prof. dr. Margriet Schneider
Division manager, Internal Medicine and Dermatology, UMC Utrecht

Appendix III

Interview protocols for study 3

INTERVIEWS WITH MEDICAL MANAGERS

Introduction

- Introduce myself as a PhD student at UMC Utrecht and Utrecht University
- Brief background on the topic: interested in how policies are implemented in such a large organization. Interested in how it works, not whether you are doing the "right" thing
- Ask consent for recording the interview and explain confidentiality of the data

Background

- Can you briefly tell me something about your function at the hospital?
- Can you briefly tell me something about patient file registration in your division?

Main part

I would like to talk to you about one specific item in the patient file registration: treatment goals. Could you tell me something about:

- How this item is implemented in your division? What agreements did you make regarding this item in your division?
- What is your impression of the compliance of physicians?
- What is your impression of the implementation action taken by medical department heads?
- What action do you take to ensure that the medical department heads implement the policy?
    - Persuasion (dialogue, advising, stimulating)
    - Punishment
    - None
- Why do you or do you not take action?
    - Role and action of higher management
    - Role and action of department heads
    - Own motivation about the policy (finding it important, feeling pressure)
    - Other factors (such as time, workload)

INTERVIEWS WITH MEDICAL DEPARTMENT HEADS

Introduction

- Introduce myself as a PhD student at UMC Utrecht and Utrecht University
- Brief background on the topic: interested in how policies are implemented in such a large organization. Interested in how it works, not whether you are doing the "right" thing
- Ask consent for recording the interview and explain confidentiality of the data

Background

- Can you briefly tell me something about your function at the hospital?
- Can you briefly tell me something about patient file registration in your department?

Main part

I would like to talk to you about one specific item in the patient file registration: treatment goals. Could you tell me something about:

- How this item is implemented in your department? What agreements did you make regarding this item in your department?
- What is your impression of the compliance of physicians?
- What action do you take to ensure physician compliance with the treatment goal policy?
    - Persuasion (dialogue, advising, stimulating)
    - Punishment
    - None
- Why do you or do you not take action?
    - Role and action of higher management
    - Role and action of physicians
    - Own motivation about the policy (finding it important, feeling pressure)
    - Other factors (such as time, workload)

INTERVIEWS WITH MEDICAL SPECIALISTS

Introduction

- Introduce myself as a PhD student at UMC Utrecht and Utrecht University
- Brief background on the topic: interested in how policies are implemented in such a large organization. Interested in how it works, not whether you are doing the "right" thing
- Ask consent for recording the interview and explain confidentiality of the data

Background

- Can you briefly tell me something about your function at the hospital?
- Can you briefly tell me something about patient file registration in your department?

Main part

I would like to talk to you about one specific item in the patient file registration: treatment goals. Could you tell me something about:

- Do you use treatment goals for your patients?
    - If yes: how do you use them? When do you use them? Can you show me?
    - If not: why not?
- Why do you or do you not use treatment goals?
    - Own motivation about the policy (finding it important, feeling pressure)
    - Capacity (being familiar with the policy, being able to comply)
    - Other factors (such as time, workload, type of patients)
- How is this item implemented in your department? What agreements did you make regarding this item in your department?
- Who took action to ensure the use of treatment goals? What action did they take?
    - Persuasion (dialogue, advising, stimulating)
    - Punishment

Samenvatting in het Nederlands

INLEIDING

Door de groeiende aandacht voor patiëntveiligheid in ziekenhuizen heeft een verschuiving plaatsgevonden van vertrouwen in professionals naar een roep om verantwoording (Berwick, 2016). Dit heeft geleid tot toenemende druk op ziekenhuizen om systemen te introduceren om het handelen van professionals te controleren (Cardinaels & Soderstrom, 2013; De Harlez & Malagueño, 2016; Numerato et al., 2012). Eén van deze controlesystemen is accreditatie: het systematisch toetsen van gezondheidsorganisaties tegen vooraf geformuleerde standaarden (Al-Awa et al., 2011). Om aan de accreditatie-eisen te voldoen is het naleven van de standaarden door zorgprofessionals cruciaal. Hoewel accreditatie oorspronkelijk een vrijwillig systeem is, wordt het steeds vaker gebruikt als een verplicht middel voor controle en publieke verantwoording (Shaw, 2003). Hierdoor is er voor ziekenhuizen een stijgende druk om een accreditatiesysteem adequaat te implementeren.

Vanuit managementperspectief kan een accreditatiesysteem gezien worden als een bureaucratisch management controle systeem (Ahrens & Khalifa, 2015; Touati & Pomey, 2009). Deze systemen richten zich op het specificeren van regels, het monitoren in hoeverre individuen zich aan de regels houden, en het straffen van acties die niet in lijn met de regels zijn (Merchant & Van der Stede, 2012; Ouchi & Price, 1978; Sitkin et al., 2010b). Verschillende auteurs wijzen erop dat zulke systemen vaak ineffectief zijn in ziekenhuizen (Abernethy et al., 2007; Aidemark & Funck, 2009; De Harlez & Malagueño, 2016) en negatieve effecten kunnen hebben op de intrinsieke motivatie van zorgprofessionals (Coombs, 1987; De Harlez & Malagueño, 2016).

Omdat ziekenhuizen echter wettelijk *verplicht* zijn om controlesystemen in te voeren, is er meer kennis nodig over hoe zulke systemen effectiever gebruikt kunnen worden. Een aantal auteurs (Mikkelsen et al., 2017; Weibel, 2010) heeft gesuggereerd dat controle op verschillende manieren uitgevoerd kan worden en dat deze verschillende manieren leiden tot andere uitkomsten. Mikkelsen en collega's (2017) hebben bijvoorbeeld laten zien dat 'zachte' handhavingsacties (gebaseerd op dialoog en suggesties) van managers gerelateerd zijn aan intrinsieke motivatie, terwijl 'harde' handhavingsacties (gebaseerd op het dreigen met straffen) dat niet zijn. Het feit dat de verplichting bestaat om controlesystemen te implementeren zegt daarmee niet automatisch iets over *de manier waarop* organisaties en hun leidinggevenden dit doen. Gebaseerd op dit inzicht richt dit proefschrift zich op het beantwoorden van de volgende onderzoeksvraag:

Welke acties worden gebruikt om het beleid van een accreditatiesysteem te handhaven en hoe zijn deze acties gerelateerd aan de motivatie en nalevingsacties van zorgprofessionals?

DE ONDERZOEKSBENADERING

Om kennis te produceren die een bijdrage levert aan zowel de wetenschap als de praktijk, heb ik gebruik gemaakt van een *engaged scholarship* benadering. In deze benadering staat de gezamenlijke productie van kennis door actoren uit de wetenschap en de praktijk centraal. Wetenschappelijke- en praktijkactoren hebben een ander soort kennis en competenties en kunnen door samen te werken kennis produceren die meer betekenisvol is dan wanneer beide actoren los van elkaar aan een probleem werken (Barge & Shockley-Zalabak, 2008; Small & Uttal, 2005; Van de Ven, 2007; Van de Ven & Johnson, 2006). In dit proefschrift heb ik nauw samengewerkt met actoren uit de praktijk gedurende alle fasen van het onderzoeksproces (het ontwerp en het proces van de *engaged scholarship* benadering is uitgebreid toegelicht in hoofdstuk 4).

De praktijkactoren waarmee ik heb samengewerkt in dit onderzoek zijn werkzaam in het Universitair Medisch Centrum Utrecht (UMC Utrecht). Dit ziekenhuis, met ruim 12,000 medewerkers en 1,000 bedden, is één van de grootste zorgverleners van Nederland. Net als andere Nederlandse ziekenhuizen heeft het UMC Utrecht te maken met externe druk om een accreditatiesysteem te implementeren. Het UMC Utrecht heeft ervoor gekozen om zich te laten accrediteren door de *Joint Commission International* (JCI) vanwege het patiëntgerichte normenkader. De implementatie-instrumenten en het beleid dat het UMC Utrecht heeft geformuleerd naar aanleiding van de standaarden van de JCI-accreditatie staan centraal in dit onderzoek. Meer informatie over het UMC Utrecht en de JCI-accreditatie kan worden gevonden in **hoofdstuk 2**.

Om meer inzicht te krijgen in de mogelijke manieren om beleid te handhaven heb ik gebruik gemaakt van theoretische inzichten uit de handhavingsliteratuur. Deze literatuur richt zich op het verklaren van hoe de naleving van regels kan worden bereikt (Parker & Nielsen, 2011). Zoals ik heb laten zien in **hoofdstuk 3** worden twee verschillende ideaaltypische handhavingsstijlen onderscheiden binnen het handhavingsonderzoek: overtuigen en straffen (Ayres & Braithwaite, 1992; Braithwaite, 1985). Overtuigen is gebaseerd op het idee dat individuen overtuigd kunnen worden om de regels na te leven en straffen is gebaseerd op het idee dat individuen de regels alleen naleven als ze geconfronteerd kunnen worden met flinke straffen. Gebaseerd op studies van Mikkelsen en collega's (2017) verwacht ik dat de inzichten uit de handhavingsliteratuur toegepast kunnen worden op de acties die leidinggevenden gebruiken om kwaliteits- en patiëntveiligheidsbeleid te implementeren.

De focus van dit proefschrift is de vraag of verschillende handhavingsacties gerelateerd zijn aan de motivatie van en de naleving van beleid door zorgprofessionals. Om dit te onderzoeken heb ik twee proposities geformuleerd die centraal staan in het empirisch onderzoek van dit proefschrift. Ten eerste verwacht ik dat overtuigen bijdraagt aan het naleven van beleid via intrinsieke motivatie. Deze propositie is gebaseerd op

inzichten uit de *self-determination theory* waarin wordt gesteld dat een overtuigende handhavingsstijl de autonomie ondersteunt, en als gevolg daarvan, bijdraagt aan intrinsieke motivatie (Mikkelsen et al., 2017). Ten tweede verwacht ik dat (dreigen met) straffen bijdraagt aan het naleven van beleid via extrinsieke motivatie. Deze propositie is gebaseerd op het argument dat (het dreigen met) straffen leidt tot een verschuiving naar extrinsieke motivatie omdat individuen hun acties als het gevolg van straffen – in plaats van als een eigen keuze – zien (Ayres & Braithwaite, 1992).

Om deze proposities empirisch te onderzoeken heb ik gebruik gemaakt van verschillende methoden en cases. Zoals ik heb toegelicht in **hoofdstuk 4**, heb ik kwalitatieve en kwantitatieve methoden gebruikt om zowel hypothesen met kwantitatieve data te toetsen *en* open te staan voor onverwachte inzichten uit kwalitatieve data. Om focus aan te brengen in de dataverzameling heb ik gebruik gemaakt van specifieke beleidsstukken van het accreditatiesysteem van het UMC Utrecht als cases (of 'vehikels') om handhavingsacties te onderzoeken. Daarnaast heb ik in dit onderzoek verschillende actoren meegenomen: artsen, leidinggevenden van artsen, en leidinggevenden van verpleegkundigen. Dit onderzoeksontwerp heeft geresulteerd in drie empirische studies, die ieder gebruik maken van een andere methode, een andere case, en zich richten op andere actoren. De drie studies en de bevindingen van de studies worden in de volgende sectie toegelicht.

RESULTATEN[34]

In **hoofdstuk 5** heb ik kwalitatieve data (16 observaties en 37 interviews) gebruikt om te verkennen welke handhavingsacties worden gebruikt door leidinggevenden van verpleegkundigen. De resultaten van dit hoofdstuk laten zien dat de meeste verpleegkundig teamleiders met name overtuigende acties gebruiken, zoals het geven van informatie en het betrekken van verpleegkundigen bij de uitvoeren van het handhavingsproces. Er zijn echter ook leidinggevenden die geen handhavingsacties gebruiken. Dat leidde tot de vraag waar de verschillen tussen leidinggevenden vandaan komen. De resultaten impliceren dat de motivatie ten aanzien van kwaliteits- en veiligheidsbeleid van teamleiders een cruciale rol speelt. Daarnaast laten de resultaten zien dat sommige leidinggevenden worden gehandhaafd door de leidinggevende boven hen. In dit geval

34 In deze sectie vat ik de resultaten van de drie empirische studies samen. Omwille van de leesbaarheid en begrijpelijkheid beperk ik mij in deze bespreking tot algemene observaties – los van de specifieke cases die centraal staan in elk van de hoofdstukken. Voor de bevindingen in het licht van de drie cases verwijs ik de lezer naar de drie empirische hoofdstukken (hoofdstukken 5 t/m 7).

is de leidinggevende een 'stok achter de deur' die ervoor zorgt dat teamleiders acties nemen om het kwaliteits- en patiëntveiligheidsbeleid te handhaven.

In **hoofdstuk 6** heb ik kwantitatieve data (een survey van N=92) gebruikt om de relatie tussen handhavingsstijlen en de naleving van beleid door artsen te onderzoeken. Daarnaast heb ik ook getest of motivatie deze relatie medieert. De resultaten van dit hoofdstuk laten zien dat overtuigende handhavingsacties gerelateerd zijn aan naleving van beleid via intrinsieke motivatie. Daarnaast laten de resultaten zien dat (het dreigen met) straffen niet gerelateerd is aan naleving, maar wel aan extrinsieke motivatie. Deze bevindingen bouwen voort op de resultaten van hoofdstuk 5 door te laten zien dat het niet alleen mogelijk is om een beleid van een bureaucratisch regelsysteem op een overtuigende manier te handhaven, maar dat dit ook een effectieve manier is om naleving van beleid door zorgprofessionals te bereiken. Het (dreigen met) straffen, daarentegen, blijkt geen effectieve manier om de naleving van beleid door professionals te bereiken.

In **hoofdstuk 7** heb ik kwalitatieve data (39 interviews) gebruikt om de handhavingsacties van medisch leidinggevenden en de motivatie en naleving door artsen te verkennen. De resultaten laten zien dat de meeste medisch afdelingshoofden geen handhavingsacties nemen en dat de andere medisch afdelingshoofden verschillende handhavingsacties gebruiken, zowel overtuigen als straffen. De resultaten van dit hoofdstuk laten daarnaast zien dat de overtuigende acties zijn gerelateerd aan intrinsieke motivatie en naleving van beleid door artsen, terwijl straffen met name gerelateerd is aan extrinsieke motivatie van artsen. Bovendien is het ontbreken van handhavingsacties gerelateerd aan het niet naleven van beleid door artsen. Deze bevindingen laten wederom zien dat eenzelfde systeem op verschillende manieren kan worden gehandhaafd en dat deze verschillende manieren van handhaving gerelateerd zijn aan andere uitkomsten. Bovendien bevestigen deze resultaten de bevinding van hoofdstuk 6 dat het niet alleen mogelijk is om overtuigende acties te gebruiken, maar dat het ook effectief is.

CONCLUSIES EN IMPLICATIES

In **hoofdstuk 8** worden de resultaten van de drie empirische hoofdstukken samengevat om een antwoord op de onderzoeksvraag te formuleren. Samengevat laat dit onderzoek zien dat het beleid van een accreditatiesysteem op verschillende manieren wordt gehandhaafd door leidinggevenden van zorgprofessionals. Hierbij valt op dat overwegend overtuigende handhavingsacties worden gebruikt door de leidinggevenden. Dit impliceert dat het mogelijk is om een bureaucratisch controlesysteem op een overtuigende (in plaats van een straffende wijze) te handhaven. Bovendien laten de resultaten zien dat overtuigende acties gerelateerd zijn aan motivatie en naleving van beleid, terwijl dit niet het geval is voor (het dreigen met) straffen. Het is daarmee niet alleen

mogelijk, maar ook effectief om een bureaucratisch regelsysteem (in dit proefschrift de accreditatie) te handhaven door middel van overtuiging.

De bevindingen en conclusies van dit proefschrift hebben implicaties voor de wetenschap en de praktijk. Ten eerste kan eenzelfde systeem op verschillende manieren worden uitgevoerd. Dit impliceert dat er niet zoiets is als één systeem dat binnen een organisatie op dezelfde wijze is geïmplementeerd. Hoewel wetenschappelijke studies naar management controle zich vaak richten op de effecten van verschillende soorten controlesystemen op uitkomsten, laat dit onderzoek zien dat het van belang is om ook de uitvoering van het systeem centraal te stellen in onderzoek. Voor de praktijk impliceert deze bevinding dat het formuleren van regels en het monitoren van compliance slechts het begin is en dat de uitvoering van het systeem door leidinggevenden van divisies en afdelingen de kern is.

Ten tweede tonen de resultaten van dit proefschrift aan dat met name 'overtuiging' (in plaats van dreigen met straffen) wordt gebruikt om naleving van regels te bereiken. Dit suggereert dat het mogelijk is om een bureaucratisch controlesystem te handhaven op een manier die niet gebaseerd is op (dreigen met) straffen. Dit wijst erop dat de assumptie dat bureaucratische controlesystemen per definitie gebruik maken van straffen onvolledig en onjuist is. Voor de praktijk impliceren deze bevindingen dat het mogelijk is om een bureaucratisch controlesysteem uit te voeren door middel van overtuiging in plaats van straffen. Dit suggereert dat het invoeren van een bureaucratisch controlesysteem – zoals een accreditatie – niet per definitie leid tot negatieve effecten zoals lagere motivatie van zorgprofessionals.

Ten derde laten de bevindingen van dit proefschrift zien dat het gebruik van 'overtuigende' acties niet alleen mogelijk is, maar dat het ook een effectieve manier is om de naleving van beleid door zorgprofessionals te bevorderen. Een straffende benadering, anderzijds, is niet gerelateerd aan naleving. Dit suggereert dat eenzelfde systeem tot verschillende uitkomsten kan leiden binnen één en dezelfde organisatie; het is daarmee niet het systeem *an sich*, maar de wijze van uitvoering van het systeem dat de motivatie en het gedrag van zorgprofessionals bepaalt. Voor de wetenschappelijke literatuur over management controle impliceert deze bevinding dat het belangrijk is om niet alleen de kenmerken van een systeem te onderzoeken, maar ook de wijze van uitvoering van het systeem mee te nemen. Voor de praktijk laten deze bevindingen zien dat het effectief invoeren van een accreditatiesysteem mogelijk is, mits overtuigende acties worden gebruikt door de leidinggevende van zorgprofessionals. Het is daarom aan te bevelen dat het gebruik van overtuigende acties door leidinggevende zo veel mogelijk gestimuleerd en ondersteund wordt.

Ten vierde wijzen de resultaten van dit onderzoek op het belang van handhaving op alle niveaus van de organisatie. De bevindingen suggereren dat de direct leidinggevende de meest belangrijke 'uitvoerder' van het accreditatiesysteem op de werkvloer

is. De resultaten laten tegelijkertijd het belang van de leidinggevende boven de direct leidinggevende zien. Deze leidinggevende op het niveau van het middenmanagement kan een belangrijke rol spelen in het aansturen van de direct leidinggevende. Voor de wetenschappelijke inzichten over management controlesystemen impliceert deze bevinding dat er niet alleen verschillen in de uitvoering door direct leidinggevenden zijn, maar dat leidinggevenden op andere niveaus ook een rol spelen in de uitvoering. Deze bevinding onderstreept het belang van onderzoek naar management controle op verschillende niveaus binnen een organisatie. Voor de praktijk impliceert deze bevinding dat het belangrijk is om het gebruik van handhavingsacties op verschillende niveaus van de organisatie te stimuleren. De resultaten van dit onderzoek suggereren twee uitgangspunten: zorgen dat direct leidinggevenden zelf worden gehandhaafd door hun leidinggevenden, en het vergroten van de motivatie van direct leidinggevenden om naleving met beleid te handhaven.

Curriculum Vitae

Ulrike Weske (1989) studied Public Administration & Organizational Science (2008-2011) at the Utrecht University School of Governance. During this Bachelor program, she studied one semester at the University of Hull (United Kingdom). After finishing her Bachelor program, she completed the two-year Research Master in Public Administration & Organizational Science (2011-2013, cum laude), organized by Utrecht University, Erasmus University Rotterdam and Tilburg University. During her studies, Ulrike worked as a student-researcher for different research and consultancy firms and as a student-assistant for the Utrecht University School of Governance. After finishing her studies, Ulrike worked as a research assistant at the Center for Competence in Public Management at the University of Bern, Switzerland.

Since February 2014, Ulrike has been employed as a PhD researcher by the Utrecht University School of Governance and University Medical Center Utrecht. In addition to writing her PhD thesis, she has published articles in different international peer-reviewed journals (*BMC Health Services Research, Health Services Management Research, International Public Management Journal, Review of Public Personnel Administration,* and *Transfer*: *European Review of Labour and Research*) and book chapters (in *Public Administration Reforms in Europe: The View from the Top* and *Experiments in Public Management Research*). Ulrike has presented her research at several international conferences organized by the *Dutch HRM Network*, *Improving People Performance in Health Care*, *Institute for Health Care Improvement, BMJ, International Research Society for Public Management*, and *Netherlands Institute of Governance*.

During her PhD project, Ulrike was involved in the quality and patient safety department of University Medical Center Utrecht. In addition, Ulrike participated in a research project on "quality improvement at the micro level" (commissioned by the consortium on Quality of Care of the Netherlands Federation of University Medical Centers, and the Quality Institute of the National Health Care Institute).

Next to conducting research, Ulrike has been involved in teaching the undergraduate course "Management of Organizations" and supervising 13 Master theses at the Utrecht University School of Governance. She has also chaired the Utrecht University School of Governance's PhD platform. As of August 2018, Ulrike works as a policy advisor at Vitalis WoonZorg Groep.