THESIS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

MANAGING MANAGEMENT INNOVATIONS

Contextual complexity and the pursuit of improvements in healthcare

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Managing management innovations
Contextual complexity and the pursuit of improvements in healthcare
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Abstract

In a context characterised by complexity and conflicting demands, healthcare managers at a meso-level struggle to pursue improvements in the quality and efficiency of care operations. An influential approach on how to pursue improvements is *quality management* (QM). QM adopts the view that systems are centred around a common aim and should be appreciated and managed to reduce undesired variation and improve performance incrementally. Nuancing this view, complexity science propels the idea of healthcare as a *complex adaptive system* (CAS), which refutes prediction and managerial control of development. As one component of the CAS of healthcare, various *management innovations* (MIs) provide suggestions on how to achieve improvements. However, achieving any improvement is not often as simple as portrayed and MIs can rarely be fully and exclusively applied in practice.

Starting from the practical issue of how to achieve improvements in healthcare, this thesis seeks to explore how healthcare managers at a meso-level can understand and use MIs to handle complexity and achieve improvements. A qualitative and action research-inspired approach is adopted to investigate this issue, concentrating on the context of psychiatric care at the Sahlgrenska University Hospital in Gothenburg, Sweden.

Four studies, resulting in five appended papers, are presented. By investigating contemporary MIs, the studies contribute to an improved understanding of how MIs can be used, and complexity handled, in the pursuit of improvements. Study 1 starts by exploring the concept of value at a time when *lean* was succeeded by *value-based healthcare* (VBHC) as the MI in fashion in the context and the study follows the implementation of VBHC in an action research-inspired approach. Study 2 tests the utility of the *value configurations framework* to handle conflicting logics and pursue improvements in psychosis care. In study 3, literature on network configurations in different healthcare contexts is reviewed. Lastly, study 4 is an action research study focusing on contextualisation of *learning health systems* (LHS) as yet an example of an MI in healthcare.

Based on the findings of five appended papers and earlier literature from the fields of QM, complexity science, and MIs, a model is developed that points to the centrality and utility of *logics* to connect MIs and other system components to improve the understanding of both MIs and CASs. By investigating the logics underlying different MIs, actors in the healthcare system (e.g., politicians, physicians, and managers), and technical features of care (e.g., its predictability and inclination to standardised treatments), a relative appreciation of a CAS can be pursued, which can guide managers in how to use MIs and attract change that can lead to improvements. Furthermore, the thesis supports the view that MIs are often ambiguous

concepts that can be translated and adapted to fit a local context in a process of contextualisation. For scholars, the thesis also contributes by integrating the perspectives of QM and complexity science, and of QM and MIs in general, as two parallel approaches to pursue improvements in healthcare.

Keywords: Healthcare management, complexity, quality management, quality improvement, management innovations, action research, psychiatry, value-based health care, learning health systems, value configurations, logics.

Appended papers

This doctoral thesis is based on the work contained in the following papers:

Paper 1: A value-based taxonomy of improvement approaches in healthcare

Colldén, C., Gremyr, I., Hellström, A., Sporraeus, D. (2017)
Published in the Journal of Health Organization and Management, 31(4), 445–458.

The paper was written mainly by Colldén, with support from Gremyr, who also jointly collected and analysed some of the interview data. Hellström assisted in designing the theoretical model and in writing the paper. Sporraeus collected parts of the data and assisted in the analysis of some of the data.

Paper 2: Value-based healthcare translated: a complementary view of implementation

Colldén, C., Hellström, A. (2018)
Published in BMC Health Services Research, 18(681), 1-11.

Colldén was the lead author of the paper, collected all data, and conducted an initial structuring analysis of the data. The analysis was then jointly conducted by Colldén and Hellström. Hellström also assisted in writing the paper.

Paper 3: Value configurations for balancing standardisation and customisation in chronic care: a qualitative study

Colldén, C., Hellström, A., Gremyr, I. (2021)
Published in BMC Health Services Research, 21(845), 1-11.

Colldén collected the data, in some parts assisted by Hellström. The data were analysed jointly by all authors and the manuscript was written mainly by Colldén, with assistance from Gremyr and Hellström.

Paper 4: From "Invented here" to "Use it everywhere!": A learning health system from bottom and/or top?

Colldén, C., Hellström, A. (2022)
Published in Learning Health Systems, e10307.

The paper was written by Colldén, with assistance from Hellström. Colldén collected all the data and conducted some of the analysis together with an action research team of organisation members. Some of the analysis was conducted jointly by Colldén and Hellström.

Paper 5: Networks for healthcare delivery: A systematic literature review

Colldén, C., Gremyr, I., Hjalmarsson, Y., Schirone, M, Hellström, A.
Submitted July 2022, currently under review.

Hjalmarsson constructed the search strategy. Hellström, Colldén, and Gremyr shared the task to screen the abstracts and assess the eligibility of the full-text articles, and jointly analysed the finally included articles thematically. Schirone conducted the bibliometric analysis. Colldén and Gremyr led the writing, but all authors participated in writing up the manuscript.

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Christian Colldén

Gothenburg and Rixö, July 2022

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TERMS AND DEFINITIONS

Term	Definition	Page
Complexity	A relative property of a system, which is increased by the number of components in a system and the number of relations between the components (Kannampallil et al., 2011)	1
Complex adaptive system	A system characterised by high complexity and actors and sub-systems that adapt and co-evolve in non-linear and unpredictable ways	1
Complexity science	The theoretical approach to understanding interconnections among agents and how they give rise to emergent, dynamic, systems-level behaviors (Braithwaite et al., 2018)	7
Contextualization	The application of a general MI to a local context	3
Healthcare management	The profession that provides leadership and direction to organizations that deliver personal and consumer health services and to divisions, departments, units, or services within those organizations (J. M. Thompson et al., 2016)	2
Improvements	Enhancements in quality and/or efficiency of healthcare organisations	2
Improvement science	An applied science that emphasizes innovation, rapid-cycle testing in the field, and spread in order to generate learning about what changes, in which contexts, produce improvements (Institute for Healthcare Improvement, 2022)	12
Logic	Dominant ways of thinking about the roles, goals, and practices connected to how an organisation achieves its aims	9
Management innovation	A management practice, process, structure, or technique that is new to the state of the art and is intended to further organizational goals (Birkinshaw et al., 2008)	3
Management practice	Techniques and behaviors used to plan, lead, and control people in the organizational process (Zeitz et al., 1999)	16
Meso-level managers	The individuals engaged in management of the organisational levels above individual units (first line) and below entire provider organisations (macro level)	3
Quality	The ability to satisfy customers and the intended and unintended impact on relevant interested parties (ISO 9001:2015)	1
Translation	The approach to contextualize MIs that involves active adaptation of a management innovation to a new context	22

ABBREVIATIONS

Abbreviation	Meaning
AR	Action research
CAS	Complex adaptive system
CFIR	Consolidated framework for implementation research
LHS	Learning health system
MI	Management innovation
PCC	Patient-centred care
PDSA	Plan-do-study-act
QM	Quality management
RQ	Research question
TQM	Total quality management
VBHC	Value-based healthcare

1. INTRODUCTION

1.1 Background to the research problem

Managing healthcare means managing a system characterised by different types of complexity (Abernethy and Stoelwinder, 1995; Braithwaite et al., 2017a; Glouberman and Mintzberg, 2001). Strong professions are to be aligned towards common goals, educational and research tasks compete with the duty of patient care, patients' needs and expectations grow as medical possibilities advance, and political and governmental directives pressure managers at all levels to simultaneously improve quality and lower costs. Healthcare managers struggle to keep professionals happy to avoid personnel shortages, keep within their budgets, demonstrate good numbers for patient satisfaction to politicians or insurance companies, and preferably display innovative quality improvement projects. The exemplification could be continued, and the need for improvements is both a matter of operational needs, external demands, and the need for the manager or the organisation to appear active or modern. However, the difficulty in bringing about improvements in healthcare is well recognised (Marshall et al., 2017; Nembhard et al., 2009). Taken together, healthcare managers are exposed to numerous complex dilemmas that cannot be solved but need to be handled continuously (Wikström and Dellve, 2009), and in this complex context, managers struggle to pursue improvements.

Complexity is a concept that lacks a commonly accepted definition (D. S. Thompson et al., 2016; Wallis, 2009) but it is generally seen to be a relative property, which is increased by the number of components in a system and the number of relations between the components (Kannampallil et al., 2011). Healthcare, with its numerous interrelated processes and actors (for example, units, professions, tasks, and financing actors), is often seen as one of the most complex systems there is and has been proposed to be a *complex adaptive system* (CAS) (Plsek and Greenhalgh, 2001). A CAS is characterised by high complexity and actors and sub-systems that adapt and co-evolve in non-linear and unpredictable ways (Begun et al., 2003; Braithwaite et al., 2017a). From a managerial perspective, these characteristics are manifested in, for example, the development of operational practices emerging within different units or professions from connections with other organisations or scientific societies, without guidance from the manager. Therefore, change in healthcare cannot be controlled in a classical sense (Abernethy and Stoelwinder, 1995; Plsek and Wilson, 2001; Richardson, 2008), which sometimes is challenging and frustrating for managers (Storkholm, 2018). Even though the prospects for managerial control of development are limited, improvements can nevertheless occur iteratively and continuously (Smith et al., 2014).

One approach for organisational improvement that has long influenced healthcare is *quality management* (QM) (Boaden et al., 2008). QM implies the pursuit of continuous improvements by, for example, teamwork, appreciation of systems, and iterative and small-scale improvement cycles (Batalden and Davidoff, 2007; Deming, 1994). In healthcare, attempts have also been made to integrate this type of quality improvement with traditional improvements through medical interventions (Batalden and Davidoff, 2007; Batalden and Stoltz, 1995; Bergman et al., 2015; Berwick, 2008). This thesis adopts the broad ISO 9001:2015 definition of quality as "the ability to satisfy customers and the intended and unintended impact on relevant interested

parties." Furthermore, quality in the context of healthcare services can be seen as based on both society values and research-based knowledge, meaning that quality is built on a holistic perspective of the impact on various stakeholders (Martin et al., 2020). Hence, customers in this context are both patients and citizens (represented by politicians), and sometimes also researchers and students. In this view, performance in terms of outcomes and resource efficiency is integrated into the quality concept, and quality also relates to the complexity of healthcare as "service providers need to balance the value experienced by the beneficiary with the professionals' understanding of quality, and public values of quality that goes beyond any individual who is using the service" (ibid, p. 10). Adopting this broad view of quality, the purpose of QM in healthcare can be seen to be to improve the performance of care systems. Thus, the term *improvement* is in this thesis defined as enhancements in the quality and/or efficiency of healthcare organisations.

Efforts to improve healthcare can involve numerous actors, but *healthcare managers* have been pointed out as one of the key players (Balding, 2005; Elg et al., 2013). Management in general has been defined as the process within an organisation with the aim of accomplishing predetermined objectives and includes both human and other resources (Longest et al., 2000). *Healthcare management* specifically refers to "the profession that provides leadership and direction to organizations that deliver personal and consumer health services and to divisions, departments, units, or services within those organizations" (J. M. Thompson et al., 2016, pp. 2–3) and can be seen to imply a meta-level perspective on the practical work of healthcare managers. Healthcare management is rooted in traditional management disciplines such as accounting, management science, and organisational behaviour (Kuziemsky, 2016), implying a target image of a hierarchically controlled, well-oiled machine (Plsek and Wilson, 2001). Principles from business management, marketing and QM have also had an important impact (Hood, 1991; McLaughlin et al., 2001), which in managerial practice is often marked by demands to report data on productivity, quality, finances, and human resources to those higher up in the hierarchy. However, adopting the view of healthcare as a CAS implies that the system is made up of many non-linear interactions in a networked structure (Richardson, 2008), which refutes linear thinking like, for example, top-down control and improvement by standardisation and rationalisation (Begun et al., 2003; Braithwaite et al., 2017a). Hence, this view has implications for management (Kuziemsky, 2016) and leadership (Marion and Uhl-Bien, 2001). To manage complex organisations, distributed leadership and the embracing of bottom-up emergence of change have been advocated (Braithwaite et al., 2017a; Greenfield et al., 2009).

Contrasting these suggestions, healthcare organisations of today often formally rely on traditional hierarchies assuming a logic of top-down control (Braithwaite et al., 2017a; Christensen and Lægreid, 2011). However, in practice, management is often more difficult (Mintzberg, 2012) and the detachment of management and practice has been described by several scholars. For example, Braithwaite et al. (2017a) noted that higher-level managers "tend to 'work-as-imagined', articulating new policies and protocols that may have little correspondence to the 'work-as-done' by clinicians" (p. 37), and Glouberman and Mintzberg (2001) described a "horizontal cleavage" between upper and lower levels of the organisation. At an organisational *meso-level*, defined as the local level and organisational levels above first-line healthcare but below policy makers and top management at macro level (Beirão et al., 2017), managers struggle to bridge the gap between hierarchical levels. The pressure from top-

down policies and protocols needs to be handled and, simultaneously, the bottom-up engagement of professionals and patients needs to be facilitated, to bring about improvements. Meso-level managers – defined as the individuals engaged in the management of the organisational levels above individual units (first line) and below entire provider organisations (macro-level) – are a key actor in merging these perspectives. It is worth noting, that first-line managers can also be engaged in meso-level management, for example when working together in a management team or on a department-level improvement project.

The difficulty of improving inherently complex healthcare organisations is one reason why more or less well-packaged management approaches are continuously suggested by management literature and consultants for how to improve the quality and efficiency of healthcare (Örtenblad et al., 2015). Such *management innovations* (MIs) have been recognised under various labels, such as management ideas (Örtenblad, 2010; Røvik, 2016, 2011), management concepts (Madsen, 2015), organisational innovations (Alänge et al., 1998), administrative innovations (Westphal et al., 1997), management panacea (Gill and Whittle, 1993), improvement approaches (van der Wiele et al., 2006) and fashion innovations (Abrahamson, 1996). In this thesis, an MI is defined as a "management practice, process, structure, or technique that is new to the state of the art and is intended to further organizational goals" (Birkinshaw et al., 2008, p. 825). A few examples of MIs that have influenced healthcare in the last decade are lean (D'Andreamatteo et al., 2015), value-based healthcare (VBHC) (Porter and Lee, 2013), and learning health systems (LHS) (Foley et al., 2021).

MIs often come with promises of easily achievable improvements and the reasons to apply them in practice are sometimes rational and based on organisational needs (Örtenblad, 2015). However, they have also been seen to be applied due to trends (Abrahamson, 1996; Staw and Epstein, 2000), top management decisions (Elg et al., 2011a; Fältholm and Jansson, 2008; Nilsson and Sandoff, 2017) or the gain of management gurus and consultants (Micklethwait and Woolridge, 1996; Walshe, 2009). Despite their promises of improvements, MIs also often fail to deliver the promised results in practice (Greenhalgh et al., 2004; Marshall et al., 2017). However, since MIs are ambiguous concepts (Ansari et al., 2010; Giroux, 2006), the process of *contextualization* – defined as the application of a general MI to a local context – can be seen as vital for the outcome (Gebauer et al., 2017; Örtenblad, 2015; Røvik, 2008). Contextualization can imply a rational implementation (Damschroder et al., 2009), but other scholars have argued that it should better be approached as a translation of the MI to fit the receiving organisation (Ansari et al., 2010; Czarniawska and Sevón, 1996; Røvik, 2016, 2011). Regardless of the source or contextualization approach, MIs are an unavoidable part of the management context at the healthcare meso-level. Hence, from a practical perspective, MIs need to be handled, either for the purpose of improvement or for the mere looks of it.

1.2 Theoretical and practical relevance

Taken together, the issue of how to manage and improve complex healthcare systems is of topical relevance for healthcare managers. QM has long influenced healthcare management and provided notable tools and perspectives, such as *appreciation for a system* and *continuous improvements*. In parallel with – and sometimes as a part of – the influences of QM, various MIs have spread to healthcare and made a greater or lesser impact on management practice. In complex healthcare systems, MIs have the potential both to assist and complicate healthcare

management. This thesis is concerned with *how* to make use of them as parts of the larger, complex context, to bring about improvements. The thesis departs from a practical perspective, where managers at the meso-level often struggle to simultaneously handle, for example, conflicting logics (Elg et al., 2011a; Wikström and Dellve, 2009), cultural differences (Røsstad et al., 2013), and multitudes of MIs (Card, 2017; Dahlgaard and Dahlgaard-Park, 2006).

From a theoretical perspective, scholarly discourses have dealt with, on the one hand, components that increase complexity, such as actors (Kannampallil et al., 2011), technology (Braithwaite et al., 2018), and organisational structures (Braithwaite et al., 2017a) and, on the other hand, MIs that are used to, for example, resolve complexities (Pellissier, 2012) or align actors towards common goals (Bonde et al., 2018). In the field of MI, scholars have taken an interest in antecedents (Emmons et al., 2012; Lin et al., 2017; Ulhassan et al., 2013), and the adoption (Örtenblad et al., 2015), and implementation (Øvretveit et al., 2012) of MIs. However, research has almost exclusively been concerned with a single MI at a time (Gebauer et al., 2017) and the predominant view has been that MIs are transient phenomena where one MI supersedes another when the former goes out of fashion (Gill and Whittle, 1993). But when studied in detail, the implementation of MIs implies an evolution of management practices, in which the influences of former MIs are *merged* with a new MI, rather than *replaced* by the newer (Lin et al., 2017). The need to pursue multiple MIs simultaneously is also recognised from a practical perspective (Gebauer et al., 2017). Furthermore, Røvik (2008) argued that many contemporary organisations are multi-standard organisations, which "routinely pick up, incorporate, and manage to live with many different popular organisational ideas, which have often been adopted in rather disparate ways" (p. 188, translated from Swedish). However, combinations of MIs, or compound contexts influenced by multiple MIs (Örtenblad, 2015), are rarely dealt with in previous studies.

1.3 Purpose and research questions

This thesis departs from the two views that MIs exist as inevitable components of healthcare and that improvements are needed to make healthcare sustainable. Furthermore, the thesis takes the perspective of meso-level managers, who have overarching responsibility for a segment of a healthcare organisation, but who are not in a position to make the general strategic decisions of the organisation. From this perspective, bringing about improvements and handling contemporary MIs are topical and related issues that need to be managed despite the complexity of the system. More specifically, how to make use of MIs to improve healthcare is a key question. Hence, the purpose of this thesis is to:

> *explore how MIs can be understood and used to achieve improvements and handle complexity in healthcare from a meso-level management perspective*

This issue is two-sided. On the one hand, MIs aim to bring about improvements, but complexity makes the realisation of improvements more difficult. Hence, there is an issue of how to handle complexity when applying MIs to achieve the intended improvements. On the other hand, improvements are sought both with and without the use of MIs and in this pursuit, MIs can both be seen as a hinder, that increases complexity, and as an assistance. The later perspective leads to the issue of how managers can handle – and preferably use – MIs in the pursuit of improvements. Starting from these issues, three research questions are posed.

First, the multitude of MIs that influence healthcare create a managerial and organisational context that can be difficult to navigate and, as indicated above, this complex context has not received much scholarly attention. Some combinations of MIs have rendered interest, such as TQM, lean, and six sigma (Andersson et al., 2006; Dahlgaard and Dahlgaard-Park, 2006) but more general views on how MIs can be related to each other and combined in practice are rare. Hence, the first research question is:

RQ1: How can meso-level managers handle combinations of MIs in healthcare practice?

Second, parallel MIs can be seen as one aspect of the complexity of healthcare, but the total complexity of the context depends on numerous other components and the general pursuit of improvements needs to take this greater complexity into account (Braithwaite et al., 2018). It is suggested that development in a CAS is emergent and cannot be controlled directly by managers (Richardson, 2008). Yet, managers need to take some actions to pursue improvements. QM has provided several tools and approaches (Ahn et al., 2021; Batalden and Stoltz, 1995; Deming, 1994; Øvretveit, 2000) – some of which can be considered MIs and some not. However, organisations struggle to realise the desired improvements (Nembhard et al., 2009; Shortell et al., 1998). The complexity of healthcare has been pointed out as one explanation for the shortcomings of QM approaches (Mazzocato et al., 2014; Plsek and Greenhalgh, 2001) and even though complexity science provides some suggestions for managers, the empirical support for how to improve in complex contexts is scarce (Storkholm et al., 2019). Hence, the second research question is:

RQ2: How can meso-level managers handle complexity in the pursuit of improvements in healthcare?

Third, combining the efforts to pursue improvements and to handle the multitude of coexisting MIs influencing healthcare (Røvik, 2008) within the greater complex context that surrounds the meso-level manager, the searchlight can be turned to the utility of MIs as tools to achieve improvements (Örtenblad et al., 2015). Implementation science has provided some guidance on how to successfully implement innovations in healthcare but has often focused on medico-technical innovations, and recognised that organisational innovations (such as MIs) "tend to be more complex and difficult to implement" (Damschroder et al., 2009, additional file 4). Moreover, implementation science has taken an interest in antecedents affecting the implementation of single MIs, but rarely discussed the complex environment of existing practices and parallel MIs (Lin et al., 2017). Therefore, the third and last research question of this thesis is:

RQ3: How can MIs be used to pursue improvements in quality and efficiency of care in a complex context?

The purpose has been addressed by studies of the MIs lean, VBHC, LHS, and the framework of value configurations in the context of psychiatric care in Sweden.

1.4 Structure of the thesis

This thesis starts with a theoretical background, where the theoretical fields of complexity, QM, and MIs are elaborated, and a conceptual framework is developed. In the following

methodology chapter, I describe the context, strategy, and design of the included studies, as well as the philosophical underpinnings of my research. The appended papers are then summarised in chapter four. Next, the results are discussed, and a model is developed based on the answers to the RQs. Last, the thesis is concluded by outlining its theoretical and practical contributions, and strands for future research.

2. THEORETICAL BACKGROUND

In this chapter, I present the theoretical perspectives applied to address the purpose and research questions. The chapter is divided into three sections based on the three central streams of literature that constitute the theoretical pillars of the thesis. First, *complexity science* is introduced to describe the context of interest. Next, *quality management* (QM) in healthcare is introduced, since it is a well-established approach for how to pursue improvements, from which several MIs also emanate. Last, *management innovations* (MIs) are introduced to elaborate on previous knowledge of the phenomenon. As illustrated in Figure 2.1, these three streams of literature are interrelated elements in healthcare management.

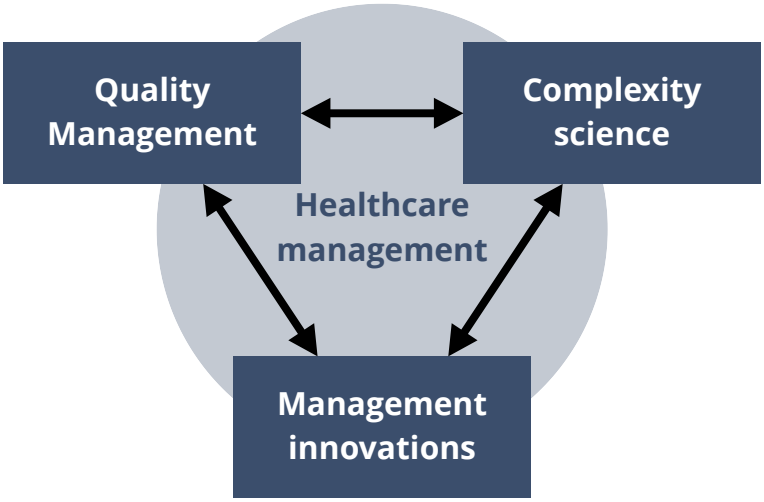

Figure 2.1. *Literature on complexity, QM, and MIs are the three theoretical pillars underpinning this thesis.*

All sections are concluded by presenting selected key concepts from that theoretical perspective, which are used to further the understanding of how MIs can be understood and used to achieve improvements and handle complexity in healthcare from a meso-level management perspective. These key concepts from different theoretical fields are then synthesised into a conceptual framework at the end of the chapter.

2.1 Complexity science in healthcare

As outlined in the introductory chapter, complexity is relative to the number of interrelated components in a system (Kannampallil et al., 2011). Complexity science, defined as "the theoretical approach to understanding interconnections among agents and how they give rise to emergent, dynamic, systems-level behaviors" (Braithwaite et al., 2018, p. 1), is rooted in natural sciences studying *complex adaptive systems* (CAS), like for example the human immune system or flocks of animals (Plsek and Greenhalgh, 2001). Besides a high degree of complexity, CASs are characterised by non-linear feedback-loops, causing self-organisation, unpredictability, and the emergence of new components and relations (Richardson, 2008). These characteristics have been argued to apply to healthcare organisations which, hence, are suited for the lens of complexity science (Begun et al., 2003; Plsek and Wilson, 2001). In the last decades, complexity science has also been used in studies of various aspects of healthcare (Kannampallil

et al., 2011; D. S. Thompson et al., 2016) and interest has been seen to increase over time (Braithwaite et al., 2017a). Some aspects of healthcare where complexity science has been used are to identify drivers of change for physicians (Longo, 2007), decision support tools for nursing (Clancy M A et al., 2001), and the practising of teamwork in maternity nursing practices (Glenn et al., 2014), identification of enabling and constraining factors for learning in clinical settings (Matthews and Thomas, 2007), and the facilitation of the spread and utilisation of innovations (Greenhalgh et al., 2017; Gremyr et al., 2019a).

2.1.1 What constitutes the complexity of healthcare?

Complexity science discriminates between simple phenomena (predictable, transparent, and with few components), complicated phenomena (containing many interrelated components but possible to describe and predict) and complex phenomena (characterised by a multitude of interrelated components that makes predictions impossible) (Greenhalgh et al., 2017; Plsek and Greenhalgh, 2001; Sterman, 2006). Notably, studied individually, each component of a healthcare system is often understandable, even though many of the technologies and biological processes are *complicated* (Greenhalgh et al., 2017). However, complexity arises when the multitude of components are embedded in an organisational and social context (Glouberman and Mintzberg, 2001). Also, the boundaries between components in healthcare are often fuzzy (Plsek and Greenhalgh, 2001) and the relations between components change between different situations (e.g., when many acute patients suddenly arrive at an emergency department) (Kannampallil et al., 2011). Describing a CAS is therefore hard and as Kannampallil et al. (2011, p. 945) argue, "the key concern here is the identification of the appropriate *granularity and seams of functional components* [and] … appropriate decomposition must be based on the nature of the problem being solved, the purpose of studying the complex system (i.e., describe, understand, predict, or manage), and the expected implications of studying the system." Consequently, if the aim is to assist in meso-level management of healthcare, components should be identified at a level corresponding to what meso-level managers encounter, can affect, or that affects them. Such components can be of various social and technical nature, like for example general medico-technical processes (e.g., types of medical procedures and techniques (Braithwaite et al., 2018)), organisational units (e.g., internal departments and external collaboration partners (Braithwaite et al., 2017a)), and groups of individuals (e.g., doctors or nurses of different specialisations (Nembhard et al., 2009)). Braithwaite et al. (2017a, p. 3) point out that healthcare systems typically include "assemblies of networked clinicians, managers, policymakers and patients, alongside their tools, equipment and procedures, all relating for common purpose". Summarised at a level relevant for meso-level management, typical system components are *internal actors* (clinicians and other managers), *external actors* (e.g., policymakers), and *technical features* (medico-technical aspects of care including the nature of the medical condition and properties of the tools and procedures used to treat it). It is worth noting, that evidence is also an important concept in the context of healthcare (Reed et al., 2018) and can be seen as included in the technical features component (what to do and how to do it) but also relates to different actors as a driver and rationale for the development of care operations.

Resembling other system components in their effect on management and interrelatedness to other system components, *logics* have been suggested as an important factor in healthcare systems (Glouberman and Mintzberg, 2001; Mannion and Exworthy, 2017). The term "logic"

is used in several theoretical contexts, such as computer science (Mossakowski et al., 2007), and institutional theory (Andersson, 2022; Reay and Hinings, 2009). In this thesis, the definition of a logic resembles that used by Baiyere et al. (2020, p. 238), that is, that logics are "dominant ways of thinking about [management] – assumptions, practices, and values." My view of logics also relates to the meaning in marketing literature on goods and service-dominant logics, where logics can be seen to refer to "roles and goals in value creation of service providers and customers" (Grönroos, 2015, p. 14). Merging these perspectives, in this thesis logics are defined as dominant ways of thinking about the roles, goals, and practices connected to how an organisation achieves its aims. Logics can be seen as intangible system components in themselves but are always connected to actors or operational approaches. First, logics connected to actors are for example managerialism (Choi, 2011; Kitchener, 2002; Storkholm et al., 2017) and professionalism (Choi, 2011; Öfverström, 2008; Reay and Hinings, 2009). Similar to these two logics, Glouberman and Mintzberg (2001) also proposed distinct logics connected to four different stakeholder groups in healthcare (care, cure, control, and community). Second, examples of logics connected to operational approaches are standardisation (Minvielle and Sicotte, 2021; Timmermans and Epstein, 2010), customisation (Ansmann and Pfaff, 2018; Catena et al., 2020; Minvielle et al., 2021), and cocreation (Beirão et al., 2017; McColl-Kennedy et al., 2012; Sweeney et al., 2015). These logics – however clearly outlined – tend to overlap each other and be intricately interrelated (Greenfield et al., 2018; Høiland and Klemsdal, 2020; Mintzberg, 2002; Needham, 2018). Since these interrelated logics often coexist (Christensen et al., 2009; Gadolin, 2017; Mannion and Exworthy, 2017; Öfverström, 2008), they can be seen to add to the complexity of healthcare, and this complexity can be seen as an unavoidable characteristic of healthcare that managers need to acknowledge and deal with (Andersson, 2022; Jacobsson et al., 2022; Storkholm et al., 2017; Wikström and Dellve, 2009).

Also adding to the complexity is the multitude of diverse internal and external actors, which are common in healthcare (Kannampallil et al., 2011). Examples of internal actors are organisational units and subcultures of different professions or specialisations (Nembhard et al., 2009), which can be connected to formal organisational units, but also to informal professional networks (Cunningham et al., 2012). External actors range from patient organisations, trade unions, and universities to consulting firms, political boards, and regulatory authorities. Like other components of a CAS, these actors are interrelated both to each other (e.g., patient organisations lobbying against political boards or consulting firms cooperating with universities), and to different logics (e.g., consulting firms to managerialism or regulatory authorities to standardisation). Furthermore, healthcare organisations are often built on traditional hierarchies (Christensen and Lægreid, 2011). However, the multitude of interrelated internal and external actors implies that lateral connections, outside of the hierarchies, play at least as important a role in healthcare management as the traditional hierarchies (Braithwaite et al., 2017a; Richardson, 2008; Rouse, 2008).

In practice, healthcare organisations are often hybrids of hierarchies and networks, where communication and governance are distributed between both hierarchical structures and network connections (Braithwaite et al., 2017a; Christensen and Lægreid, 2011). Even though complexity science scholars sometimes advocate network organisation (Kokeš, 2017), top-down management and leadership have a role to play in the coordination of, for example,

financial allocation, general policy, and long-term strategy (Braithwaite et al., 2017a). However, over-emphasising hierarchies may also block lateral organisational connections and impede cooperation between professions (McCallin, 2001). Hence, hybrid organisations can be seen as functional trade-offs and the management of hybrid interactions has been pointed out as a central task for healthcare managers (Boitier et al., 2018).

2.1.2 How can complexity be handled?

There are several suggestions as to how complexity affects managers and the achievement of change or improvements in healthcare (Abernethy and Stoelwinder, 1995; Braithwaite et al., 2018, 2017a; Greenfield et al., 2009; Plsek and Wilson, 2001; Richardson, 2008; Rouse, 2008). Generally, if the view of healthcare as a CAS is applied, change is seen as emergent and non-linear rather than conducted, which opposes management by control through traditional hierarchies (Braithwaite et al., 2009; Mintzberg, 2012; Snowden and Boone, 2007). This perspective can result in an "anything goes" attitude to management but if the view is adopted that "complexity 'thinking' is the art of maintaining the tension between pretending we know something, and knowing we know nothing for sure" (Richardson, 2008, p. 21), some advice can be provided on how to handle complexity.

Relating to simple, complicated, and complex phenomena, Snowden and Boone (2007) presented a framework of different types of managerial circumstances outlining simple, complicated, complex, and chaotic contexts. The first three correspond to the types of phenomena described in the last section, while a chaotic managerial context is an extreme version of the complex context, characterised by high turbulence and time constraints that allows very little time to search for answers. Suggestions to use for management approaches differ between contexts, and managers are advised to identify what type of context they act in and be open to changing their practices to fit the situation. This may also be relevant in healthcare, since even though the healthcare context can generally be seen as complex, some operational parts can be complicated or even simple (Storkholm, 2018; Storkholm et al., 2019).

Separation of small parts of a complex system can improve the understanding of single processes or micro-systems but is cautioned against when trying to study and improve entire systems (Braithwaite et al., 2017a). In complex contexts, Braithwaite et al. (2017a, p. 40) advise managers to "work with, not against the natural properties of the complex system". This view is shared by Richardson (2008), who suggests that managers should: 1) not assume that repeating an action will lead to the same result at another time, 2) include more people in making decisions, 3) base decisions on the best current understanding but expect to be wrong and, therefore, 4) not be afraid to reconsider earlier decisions, since CASs develop in unforeseeable ways. Complexity thinking also implies that managers should avoid micro-management (overly detailed directives) (Braithwaite et al., 2017a) and, instead, set barriers and monitor the emerging development, and stimulate change through dialogue and attractors (that is, hypothetical or practical examples that resonate with people's desires and needs) (Snowden and Boone, 2007). The advice to include more people in decision-making is sometimes recognised under the label of distributed leadership, meaning that influence and leadership expertise is spread among those actors involved (Greenfield et al., 2009). This approach has also been shown empirically to entail higher quality solutions to operational issues (Mihm et al., 2010) and an increased likelihood that changes result in desired improvements

(Best et al., 2012; Fitzgerald et al., 2013). Distributed leadership may not only include employees and other internal organisation members, but, as discussed in section 2.1.1, healthcare managers often also need to handle influences and demands from hybrids of hierarchical and lateral actors (Christensen and Lægreid, 2011). To bridge actors and demands, Storkholm (2018) suggested that healthcare managers can reframe external requirements to resonate with the ethos of professionals to engage them in cooperative decision-making (for example downsizing demands reframed as "stretch goals", which audaciously challenge professionals to become creative and innovative). To accomplish quality improvements in complex contexts, Storkholm argues that managers benefit from understanding the dominant views (i.e., logics) of change in healthcare that underlie different actors in the system. The coexistence of different logics among different actors in healthcare is also recognised by Wikström and Dellve (2009), who suggest that managers should try to integrate coexisting logics rather than separating them.

Hence, even though a clear-cut guide to the management of CASs cannot be provided, complexity science still gives some suggestions. Managers are advised to approach their task by acceptance of non-linearity and unpredictability, make decisions together with other relevant actors (internal and external to their own organisation), and adopt a holistic view of the complex system.

2.1.3 Key concepts from complexity science as used in the thesis

Complexity is an important characteristic of the context for healthcare managers, which can influence the pursuit of improvements that this thesis focuses on. Summarising the perspective of complexity science, meso-level managers are situated in the middle of the CAS of healthcare. Complexity arises from the total effect of multiple interrelated system components, which exist both internally in the organisational part of the system that the meso-level managers are responsible for, and externally in the multitude of stakeholders of healthcare, ranging from patients to regulatory authorities. Examples of important categories of system components are internal actors (e.g., professions and peer managers), external actors (e.g., superior management, political bodies, and regulatory boards), and technical aspects of how care for different types of patients can be delivered (including the natures of specific medical conditions). In addition, different logics permeate the system and are implicitly or explicitly linked to other components. Meso-level managers need to handle demands and influences coming from all directions while striving for improvements. Advice from the literature on how to deal with complexity includes practices such as distributed leadership, integration of coexisting logics, and the embracing of emergent change, implying a holistic view of the system as unpredictable and ever-changing, and where development can be nudged but not planned in advance.

2.2 Quality management in healthcare

As demonstrated in the previous section, healthcare managers act in a context characterised by complexity, which is inherently difficult to control. Yet, they must not only maintain day-to-day operations but also continuously pursue improvements. In other words, healthcare managers have two tasks: to do their job and to improve it (Batalden and Davidoff, 2007). The field of QM aims to provide guidance on how to achieve improvements in quality and efficiency

and has had an important impact on healthcare over the last decades (Aggarwal et al., 2019; Boaden et al., 2008; Hill et al., 2020; Nguyen and Nagase, 2019; Rohrbasser et al., 2018). Hence, the principles of QM are a foundation for many healthcare managers on how to pursue improvements, relating to RQ 2 and 3.

The application of the QM concept in healthcare began in the early 1990s with, for example, a seminal paper by Batalden and Stoltz (1993) and the formation of the Institute for Healthcare Improvement in 1991, which provided well-used methods to healthcare providers and collaboratives (Boaden et al., 2008; Nadeem et al., 2013). In the late 1990s, the US Institute of Medicine held a roundtable on quality (Bergman et al., 2015), which led to the subsequent influential publications entitled *To err is human: Building a safer health system* (Institute of Medicine, 2000) and *Crossing the quality chasm: A new health system for the 21st century* (Institute of Medicine, 2001), which impacted healthcare sectors both in the US and internationally. Today, QM is an established and noticeable part of Swedish healthcare management (Elg et al., 2011b) and can be recognised in concepts like *quality assurance systems* (Socialstyrelsen, 2011), assigned quality developers in many departments, and benchmarking initiatives in the form of quality registers and *open comparisons* (Socialdepartementet, 2014; Socialstyrelsen, 2009).

While QM concepts generally build on incremental and continuous improvements, some scholars have also argued that modern organisations also need to strive for breakthrough improvements (Watson, 2018) and fundamental redesign of processes (Ahn et al., 2021). Such radical improvements are sometimes promised by concepts emanating from QM and Some MIs have spread to healthcare from the field of QM, which can be adopted in a way that implies fundamental redesign of processes to pursue continuous improvements (van der Wiele et al., 2006). For example, total quality management (TQM) (Yang, 2003), lean (D'Andreamatteo et al., 2015; Mazzocato et al., 2010) and six sigma (Taner et al., 2007) have received attention in healthcare practice.

Also, the scholarly interest in QM in the context of healthcare has grown and the emergence of a *science of improvement* has been recognised, synthesising the use of professional knowledge (from different disciplines of medicine and care, which have traditionally formed the basis of improvements in healthcare) with improvement knowledge (QM approaches like statistical tools and appreciation for systems, which are argued to have potential to enhance the effects of medical advancements) (Batalden and Stoltz, 1995, 1993; Bergman et al., 2015; Marshall et al., 2013). The science of improvement has been defined as "an applied science that emphasizes innovation, rapid-cycle testing in the field, and spread in order to generate learning about what changes, in which contexts, produce improvements" (Institute for Healthcare Improvement, 2022) and is from here on referred to as *improvement science* (Fischbacher et al., 2021).

2.2.1 The concept of profound knowledge

One of the most influential QM theories for improvement science is Deming's (1994) conceptualisation of *profound knowledge* (Bergman et al., 2015; Marshall et al., 2013). The system of profound knowledge consists of four related domains:

1. Appreciation for a system
2. Knowledge about variation
3. Theory of knowledge
4. Psychology

Appreciation for a system implies the view that a "system is a network of interdependent components that work together to try to accomplish the aim of the system" (Deming, 1994, p. 95). Furthermore, the aim must, in one way or another, relate to benefits for humans or society, rather than to a specific method or activity, connected to customer focus as a key principle of QM (Dean and Bowen, 1994). Healthcare is a vital and often publicly funded function of society, and customer focus can in this context hence be seen to imply balancing the needs of various stakeholders within the system in addition to the individual patient (Martin et al., 2020). Furthermore, the components of the system and their interrelations need to be understood and managed to optimise the performance of the system as a whole (and not of individual components). As an ideal example, Deming describes a good orchestra where the conductor and all of the musicians cooperate and support each other to produce a beautiful concert for the audience. In practice, appreciation for a system has come to focus on operational processes and has later often been equated to process management (Watson, 2018).

Knowledge about variation is a central aspect of QM, building on the work by Walter A. Shewhart in the 1920s. Using data and statistical tools and methods (e.g., control charts and distribution plots) to understand the performance of the system is argued to be essential in order to optimise processes. Two key concepts are *common cause* and *special cause* variation (Deming, 1986). Common causes are the natural patterns of variation due to commonly present factors, while special causes are unusual factors triggering unexpected variation. Deming (1994) emphasises the need to differentiate between processes that are in a state of statistical control, i.e., processes that are only affected by common cause variation and, hence, have a definable and predictable capacity and processes that are not in statistical control, meaning that their performance is not predictable, due to special cause variation. The first aim is to remove special causes of variation to get a process into a stable state. Next, the common cause variation of that process can be approached to improve the process by systematic approaches like the plan-do-study-act (PDSA) cycle (Roehrs, 2018). The argument is that management based on an understanding of a system that overlooks factors that increase variation, sometimes labelled "profane" knowledge (Watson, 2018), leads to inferior performance than the use of profound knowledge.

Theory of knowledge is also connected to prediction and PDSA methodology (Reed and Card, 2016; Taylor et al., 2014), as well as learning. In a state of statistical control (a stable state), a manager can predict the outcomes of operations. The prediction is based on a mental model, a theory, of how the components of the system interact to produce the outcome. Such theories can also be developed and expressed as a means to engage stakeholders in joint improvement work (Reed et al., 2014). The idea is that without a theory, information cannot be turned into an understanding that helps in taking (managerial) action towards the future and to create organisational learning. Also, the awareness of existing theories of how systems and processes function is important in itself to appreciate a system and master the PDSA methodology. Iterative planning of actions aimed to improve quality (the P in PDSA) requires a theory of how the actions will affect outcomes, and the studies of the results (the S in PDSA) create iterative

learning, in which the theory is developed. Hence, PDSA cycles are a means to gain knowledge of the system (Roehrs, 2018).

Psychology is the last domain of the system of profound knowledge (Deming, 1994), turning the focus on how improvements can be achieved. Managers need to understand people and the interactions between people and their contexts to bring about improvements. Intrinsic motivation, rather than for example monetary rewards, is emphasised by Deming (1994). Understanding one's own role in a bigger system also supports intrinsic motivation and decreases the risk of optimisation of individual system components at the expense of the efficiency of the whole system. Bergman et al. (2015) also acknowledged the notion of CASs in relation to the system of profound knowledge and indicated that the view of healthcare as a CAS implies increased importance and a broader meaning in the psychology domain. They suggest that the use of soft "attractors", rather than hierarchical managerial control, for the development of systems and processes is called for. Hence, the psychology of individuals and groups becomes more important as they, instead, need to be *attracted* to change (Bergman et al., 2015).

Thus, these four domains together enable profound knowledge, which can allow managers to lead their organisations to well-informed continuous improvements and improved outcomes. Profound knowledge is a central concept within QM and focuses primarily on continuous improvements but, implicitly, also on two other core principles of QM: customer focus (Nguyen and Nagase, 2019; Øvretveit, 1997) and teamwork (Dean and Bowen, 1994). For example, Deming (1994), like QM in general, assumes a managerial perspective but also encourages the engagement of employees and teams in improvement work, and argues that the aim of a system must be clearly related to the customer.

2.2.2 Quality management as principles, practices, and techniques

QM can be seen as a general approach, or even a philosophy, for operational improvement, which contains a set of principles, practices, and techniques (Dean and Bowen, 1994). *Principles* refer to the key perspectives and values such as customer focus, continuous improvement, and teamwork, which can be applied to numerous aspects of operations and management (Dean and Bowen, 1994). *Practices* are more concrete activities or distinctive elements of operations, like quality performance measurement systems, process management, and the involvement of employees in improvement teams (Kaynak, 2003). Finally, *techniques* refer to concepts at the lowest level of abstraction and include, for example, quality circles and benchmarking, tools like control charts, process maps, and Pareto diagrams (Bamford and Greatbanks, 2005; Hellsten and Klefsjö, 2000; Tarí and Sabater, 2004).

Of these three levels of abstraction of QM, Sousa and Voss (2002) suggested that *practices* is the level most suited for the study of managerial work. They argued that "practices are the observable facet of QM, and it is through them that managers work to realise organisational improvements. Principles are too general for empirical research and techniques are too detailed to obtain reliable results (e.g., one practice may be implemented via many optional techniques)" (Sousa and Voss, 2002, p. 92). QM practices have been related to improved performance (e.g., Kaynak, 2003) but other studies have suggested that many real-life implementations of QM concepts fail to deliver the desired results (Hansson and Klefsjö, 2003). Some reasons why

implementations fail can be connected to a lack of managerial support (Kaynak, 2003) and a misfit between the culture of the organisation and the tenets of QM (van Allen, 1994). However, the evaluation of the advantages of certain QM practices has been argued to be complicated by insufficient conceptual clarity and consistency, as the differentiation between principles, practices, and techniques, as well as tools, values, approaches etc., is sometimes vague (Hellsten and Klefsjö, 2000).

Also in a healthcare context, QM practices have been applied (Rubenstein et al., 2014; Taylor et al., 2014) but evaluating studies have presented mixed and uncertain results and have sometimes focused on indistinct levels of abstraction, such as "total quality management factors" (Nguyen and Nagase, 2019) or "continuous quality improvement approaches" (Hill et al., 2020) and sometimes on specific tools, like PDSA circles (Reed and Card, 2016; Rohrbasser et al., 2018; Taylor et al., 2014). Other scholars have focused on the failure of QM practices in the context of healthcare and suggested reasons connected to characteristics of the healthcare business (Nembhard et al., 2009). For example, healthcare is often focused on medical procedures, rather than on customer needs (Zabada et al., 1998); led by capacity rather than demand and lacking slack resources (Radnor et al., 2012); inhibited by strong and highly specialised professions, not prone to teamwork (Nembhard et al., 2009; Zabada et al., 1998); risk aversion, which impedes experimentation and iterative tests of new ways of working (Nembhard et al., 2009); and the difficulties to identify valid measures of quality in healthcare (Donabedian, 1997; Rosenthal et al., 2005). Furthermore, some QM concepts have been seen to be used superficially (missing or misusing key principles), for example, lean healthcare (D'Andreamatteo et al., 2015; Savage et al., 2016) and PDSA cycles (Taylor et al., 2014). However, success factors (Waelli et al., 2016) and the effectiveness (Hill et al., 2020) of implementation of QM in healthcare have also received interest, and Gremyr and Elg (2014) suggested that the implementation of QM concepts should be approached as a developmental journey exploring and testing out new ways of working that fit the local context, hence arguing that *how* a QM concept is implemented is more important than *what* concept is applied.

2.2.3 Key concepts from quality management as used in the thesis

Much guidance to healthcare managers on how to pursue improvements emanates from QM, even though the guidance sometimes comes in the form of specific tools like PDSA cycles and sometimes as holistic approaches like lean. However, appreciation for a system can be seen as a starting point, and a manager's active efforts to appreciate the system can be seen as an essential practice, as illustrated in Figure 2.2. The other domains of the system of profound knowledge are also connected to advised practices for managers: theories are applied to design and develop care operations and their measurement, which can thereafter be investigated in terms of variation. To achieve improvements, knowledge of psychology is an important base to drive change. In the context of healthcare, these QM practices can be combined with professional knowledge to drive improvements effectively. Overall, the aim of the system and improvements should be customers' needs, which in the case of healthcare is composed of various stakeholders' desires and prioritisations.

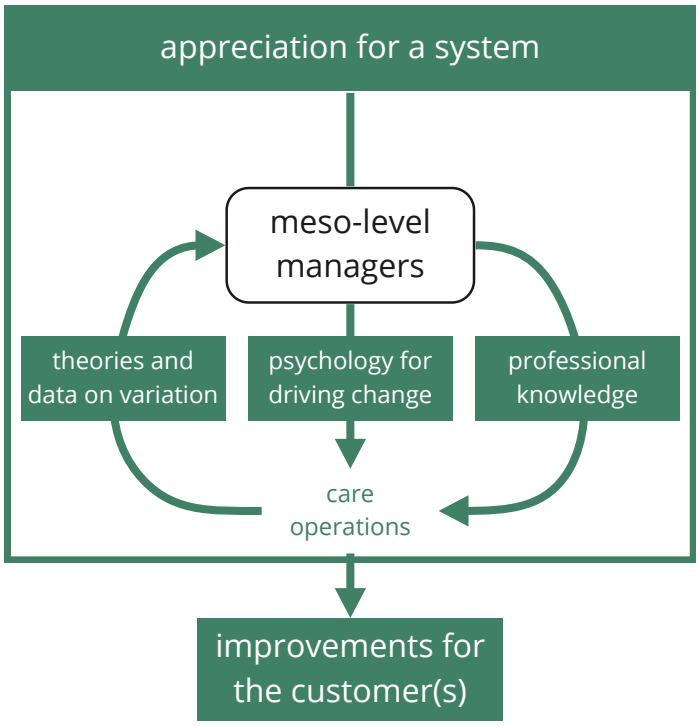

Figure 2.2. *Key concepts of QM in healthcare management, in relation to this thesis. Appreciation for a system is a starting point for meso-level managers and can be seen as an overarching goal. To continuously improve the care operations within the system managers should create or acknowledge theories of how the system interacts to produce its outcome, and study variation of the outcome. Based on these sources of knowledge, change can be attracted using the understanding of psychological factors connected to the actors within the system. The goal should always be increased value for the customers, which in this thesis includes both patients and citizens (represented by politicians), and sometimes also researchers and students (see section 1.1). In healthcare, inclusion of professionals and professional knowledge is also crucial to achieve improvements and gain acceptance for change.*

2.3 Management innovations

QM is not the only source of guidance for healthcare managers. As a phenomenon of special interest in this thesis, numerous MIs are proposed as solutions to improve healthcare. By definition, the implementation of MIs implies the adoption of managerial principles, practices or structures that are new to the local context (Birkinshaw et al., 2008; Birkinshaw and Mol, 2006). However, the journey from a multitude of available conceptual MIs to practical changes that lead to operational improvements is not always clear-cut.

2.3.1 What is a management innovation?

Let us start by looking at a life cycle of a typical MI, as outlined in Figure 2.3. The birth of a new MI is often an organisational issue that needs a solution, for example, a wish to improve the quality or efficiency of operations (Birkinshaw and Mol, 2006). Internally emanated ideas and external inspiration lead the organisation to design a new *management practice* to solve the issue (Gebauer et al., 2017). A management practice can in this context be defined as "techniques and behaviors used to plan, lead, and control people in the organisational process" (Zeitz et al., 1999, p. 743). To become an MI, this new local management practice now needs

to be decontextualized, meaning that it needs to be described in general terms to be transferred to a new context, and it has to be given a specific label or name (Bort, 2015). In this step, the local management practice needs to be connected to a theory as to how it works in relation to the issue it is meant to solve (Strang and Soule, 1998). This theory can be seen as a parallel to what Deming (1994) described in the "theory of knowledge" domain and helps compel adopting organisations about the relevance of the management practice (i.e., the MI) (Bort, 2015). The adoption of an MI in a new organisation can be seen as a rational choice based on organisational needs (Alänge et al., 1998; Örtenblad, 2015). However, it can also be seen as a response to external pressure (Gremyr and Elg, 2014) or contemporary trends (Abrahamson, 1996; Staw and Epstein, 2000). Some MIs receive widespread attention and become *management fashions* (Abrahamson, 1996), hence reaching a larger audience of potential adopter organisations. In the adopting organisation, the MI is contextualized (Örtenblad, 2015; Røvik, 2008) into the local context, where it becomes a local *management practice* in the new organisation. Thus, management practices refer to the actual (in practice) or intended (as described in an MI) managerial techniques and behaviours (Bort, 2015).

Eventually, an MI can become entrenched as a natural part of management (Røvik, 2011; Zeitz et al., 1999). However, it can also be actively rejected, or passively expired without any formal decision (Røvik, 2011). As outlined by for example Bort (2015) and Røvik (2011), the journey of an MI can take many different paths.

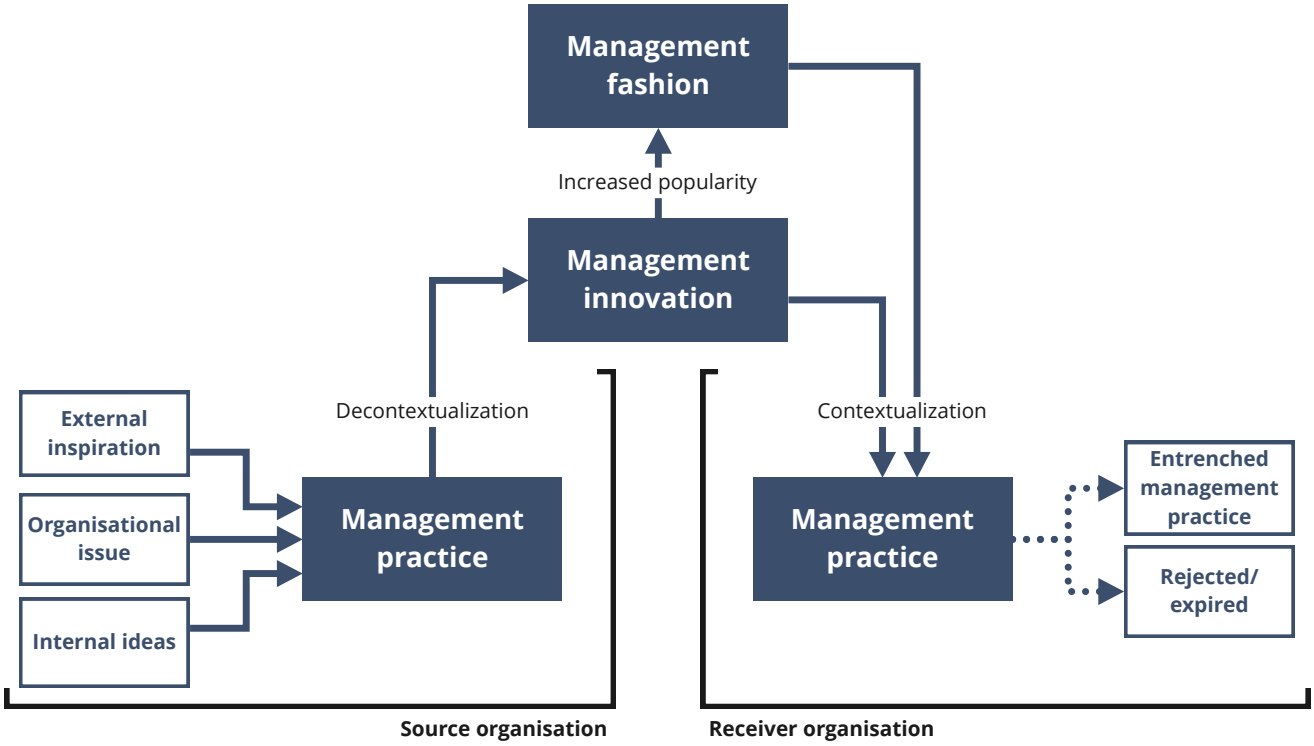

Figure 2.3. *A framework of the concepts of MIs, management fashions and management practices, outlining an example of a life cycle for an MI. An organisational issue in one organisation is solved through the use of internal ideas and external inspiration, resulting in a management practice that can be decontextualized and become an MI, which in turn can be adopted by other organisations seeking to solve a similar issue. In the new organisation, the MI is contextualized into a management practice that is new to that organisation. Some MIs become management fashions, which entails pressure on other organisations to adopt them. Inspired by Bort (2015) and Røvik (2011).*

By definition, MIs are principles, structures, or techniques that, in some way, are intended to improve quality and efficiency, or more broadly "to further organisational goals" (Birkinshaw et al., 2008, p. 825). They can be aimed directly to increase efficiency or solve problems or seize opportunities for improvements (Gebauer et al., 2017). As indicated in section 2.2, QM is a field that has produced several concepts that can be considered MIs, such as TQM (Yang, 2003), lean (D'Andreamatteo et al., 2015; Mazzocato et al., 2010; Belfanti, 2019), and six sigma (Lifvergren et al., 2010; Taner et al., 2007). But MIs also originate from other areas of management and some examples that have influenced healthcare in the last decades are Balanced Scorecards (Kaplan and Norton, 1992), Management-by-objectives (Traberg, 2011), value-based healthcare (VBHC) (Porter and Lee, 2013; Porter and Teisberg, 2006), learning health systems (LHS) (Foley et al., 2021; Plsek and Greenhalgh, 2001), and trust-based management (Bringselius, 2018; Elmersjö and Sundin, 2020). There are, of course, differences in themes, emphasis, and concrete solutions between different MIs but there are also significant similarities (Dale et al., 2002; Örtenblad, 2010; Örtenblad et al., 2015; van der Wiele et al., 2006) – to the extent that some scholars argue that (some) MIs can be seen merely as a repackaging of old knowledge using new labels (e.g., Mazza and Alvarez, 2000; Spell, 2001) or "pseudoinnovations" (Walshe, 2009). Moreover, MIs can be seen to be attached with some degree of ambiguity (Benders and van Veen, 2001; Giroux, 2006), implying the admittance of "more than one course of action" (Giroux, 2006, p. 1227). Hence, MIs can be understood or interpreted as more or less similar depending on the receiver (Fredriksson et al., 2015; Røvik, 2008). This ambiguity and repackaging can be seen as a threat to the utility of an MI (Walshe, 2009). However, it can also be seen as an asset (Giroux, 2006) and for example, Ansari et al. (2010, p. 83) have argued that an MI has better prospects to be successfully fitted into a local context if "it operates at a fairly abstract level, providing greater opportunities for divergent interpretation and sensemaking."

That is, MIs are often presented as distinct concepts and sometimes argued to reject other MIs. (For example, Deming (1986) argued for the elimination of the MI "management by objectives.") However, upon closer examination, MIs are often ambiguous and/or overlapping in their contents. Examples of overlaps between MIs are found among MIs both from QM (Andersson et al., 2006; van der Wiele et al., 2006) and from other theoretical fields (Menear et al., 2019; Örtenblad, 2010). One example is six sigma, which some have seen as merely a new label for total quality management (TQM) (McManus, 1999) and others as something new (Pande et al., 2000). However, TQM and six sigma when studied in more detail can be seen to overlap in fundamental principles but diverge in views of how to use metrics and formalized structures and processes (Schroeder et al., 2008). MIs that share some similarities have also been argued to be complementary to each other, such as TQM, six sigma, and lean (Andersson et al., 2006), and VBHC and LHS (Menear et al., 2019). Hence, the labels of MIs are not irrelevant but the management practices that they cause in the local context are of greater importance, in line with Sousa's and Voss' (2002) argumentation for the relevance of the level of practices.

In this thesis, four MIs are studied: lean, VBHC, the value configurations framework, and LHS. *Lean* focuses on maximising customer value, and in healthcare, this MI implies the integration of four types of mechanisms into management practice (Mazzocato et al., 2010):

1. process mapping
2. specification of standard procedures
3. enhanced adherence to standard procedures
4. team approaches to problem-solving.

Similarly, focusing on maximising value, interpreted as "achieving the best outcomes at the lowest cost" (Porter and Lee, 2013, p. 51), *VBHC* can be summarised in six interdependent components:

1. organise care into integrated practice units
2. measure outcomes and costs for every patient
3. reimburse through bundled payments for full care cycles (from onset to end-stage)
4. integrate care across different facilities
5. expand services with the best outcomes across geography
6. create enabling information technology platforms

The *value configurations framework* is also concerned with the creation of value and builds on Porter's and Millar's (1985) concept of the value chain but adds two additional conceptual models (configurations) as to how value can be created: the value shop and the value network (Stabell and Fjeldstad, 1998). While value creation in chain configuration implies straight and standardised processes, shop configuration integrates professionals and resources in the iterative solving of unique problems, and network configuration provides infrastructure connecting resources in a way that value can be created without the direct involvement of the service provider. Thus, the three configurations are described as distinct solutions for how to create value and can be seen as three different MIs. The separation of care corresponding to the different configurations has also been suggested to improve care efficiency (Christensen et al., 2009).

Last, *LHS*s are also suggested as a solution for how to improve the quality and efficiency of care and has been defined as a system "in which science, informatics, incentives, and culture are aligned for continuous improvement and innovation, with best practices seamlessly embedded in the care process, patients and families active participants in all elements, and new knowledge captured as an integral by-product of the care experience" (Institute of Medicine, 2012). This MI relies on enabling information technology and the sharing of data in networks that include patients, providers, and other actors. LHSs include both technological solutions and interpersonal interactions to allow for a coproduction of individual care and organisational improvements (Gremyr et al., 2021).

Similarities and differences between these four MIs that are included in the studies of this thesis are outlined in Table 2.1. In summary, all these MIs are relevant at the meso-level (but also to different extents at the levels below and above) and reoccurring components are the aim of more efficient value creation, the measuring of outcomes as a base for competition (or comparisons), the reorganisation of care processes, and the use of supportive IT systems.

Table 2.1. *Overview of the MIs in focus in the empirical studies of this thesis.*

MI	Aim	Strategies	Organisational level(s) of relevance
Lean (in healthcare)	Efficient value creation	Standardisation of processes, teamwork	Meso and micro-level
VBHC	Efficient value creation	Reorganisation of care, outcome-based competition and reimbursement, supportive IT systems	Macro and meso-level
Value configurations framework	Efficient value creation	Reorganisation of care to fit the nature of operations. Standardisation (where possible)	Macro and meso-level
LHS	Knowledge creation for continuous improvements and innovation	Outcome-based learning and competition, supportive IT systems	Macro, meso, and micro-level

2.3.2 Rationales for implementation of management innovations

Over time, managers of most organisations are influenced to some extent by MIs (Røvik, 2008). Several scholars have argued that MIs are often only partially implemented, and that new MIs tend to succeed the former (Gebauer et al., 2017; Örtenblad et al., 2015), which can leave organisations with a heritage of elements from several MIs (Dale et al., 2002; Røvik, 2008). So, what is the rationale to adopt a new one? Two different perspectives exist, as to why MIs are adopted: rational choices and fashions (Abrahamson, 1991). First, the choice of an organisation or an individual manager to adopt an MI can be seen as rational and motivated by careful consideration of the approach that serves the organisation best in order to bring about improvement (Alänge et al., 1998; Örtenblad, 2015; Rogers, 2003). Second, scholars discussing management fashions (Abrahamson, 1996, 1991; Abrahamson and Fairchild, 1999; Wefald and Downey, 2009) emphasise the view that MIs spread as a result of trends and fashions. A management fashion is defined as "a relatively transitory collective belief, disseminated by management fashion setters, that a management technique leads rational management progress" (Abrahamson, 1996, p. 257) and some have described contemporarily fashionable MIs as bandwagons that managers or organisations jump on to appear progressive and up to date (Birkinshaw et al., 2008; Nicolai et al., 2010; Staw and Epstein, 2000). However transitory, management fashions are still protrusive and established enough to become a norm, in comparison to management fads, which can be seen as more short-lived ideas (Wefald and Downey, 2009).

From a managerial perspective, van der Wiele et al. (2006) argues that, since the implementation of an MI is both expensive and time-consuming for an organisation, managers must try to predict the potential improvements of applying the MI. If the organisation has little time or money to invest, or if the organisation is performing relatively well in comparison to similar organisations, the advice may be not to adopt any MI. Both the outcomes and process of implementation of an MI are unpredictable (van der Wiele et al., 2006) and it has been argued that MIs often fail to deliver the promised results in practice (Greenhalgh et al., 2004; Marshall et al., 2017). Limited correspondence between work-as-done by clinicians and work-as-imagined by managers and policymakers has been observed (Braithwaite et al., 2017b) and can

be seen to indicate that in practice, if clinicians do not appreciate a good enough cost-benefit ratio for an MI, they may not invest in implementing it and the desired improvements may not be realised. Hence, the choice to implement (or not to implement) MIs calls for careful managerial consideration, timing, and prioritisation. However, for managers at the meso-level, freedom of choice can be limited and directives from higher management levels or external actors can impose the implementation of an MI (Elg et al., 2011b). Irrespective of the reason, if the choice is made to implement an MI, the horizontal cleavage between managers and clinicians described by Glouberman and Mintzberg (2001) can constitute a hinder. Understanding the logics of different stakeholders may therefore be key to successful communication (Mintzberg, 2002) and adaptation of the MI.

2.3.3 Contextualization of management innovations

The RQs of this thesis are concerned with how to use MIs in the pursuit of improvements and, as mentioned above, practices have been pointed out as the level at which managers realise improvements (Sousa and Voss, 2002). That is, changes in the way a manager works can result in improved performance of the organisation. As indicated in Figure 2.3, *contextualization* can be seen as the connection between MIs and management practices and is hence crucial for the successful application of an MI. Implementation is a well-established approach to contextualize MIs with the aim to produce a local application with high degree of fidelity to the original concept. However, in practice, the results of the adoption of a management innovation can vary greatly (Kaboolian, 2000; Marshall et al., 2017) and the process of contextualization is an important determining factor for the result (Gebauer et al., 2017; Nembhard et al., 2009). That is, different organisations that have adopted the same MI can often be found to have implemented different management practices, while still preserving the same MI label (Benders and van Veen, 2001; Örtenblad, 2010), which especially applies to early adopters of new MIs (Westphal et al., 1997). For example, managers can choose and/or adapt parts of MIs (Benders and Verlaar, 2003; Marshall, 2009). MIs in fashion can be superficially applied or understood (Fredriksson et al., 2015). Or MIs can be merely symbolically adopted, which has been referred to as “decoupling” (Boxenbaum and Jonsson, 2008; Staw and Epstein, 2000). That is, when managers are exposed to conflicting pressures, they can sometimes adopt only the rhetoric of an MI, while keeping operations undisturbed or developing the organisation in another direction (Heusinkveld et al., 2013). In addition, local management practices often emanate from several Mis (Lin et al., 2017; Røvik, 2008) and altering fashions; and repeated switches in MIs that are implemented can be seen to leave “sediments” of management practices that continue to be used over time, in combination with additional practices from new MIs (Heusinkveld and Benders, 2012). Hence, the process of contextualization can be crucial for the management practices that are implemented and the improvements that are achieved (Andersen and Røvik, 2015; Lin et al., 2017; Røvik, 2011).

Implementation science is a field concerned with methods to promote uptake of new interventions and research findings in healthcare practice (Eccles and Mittman, 2006; May, 2013) and numerous frameworks and theories of implementation have been presented (Birken et al., 2017), for example, the diffusion of innovation (Greenhalgh et al., 2004; Rogers, 2003) and the consolidated framework for implementation research (CFIR) (Damschroder et al., 2009), which has been applied to a broad range of healthcare interventions (Kirk et al., 2015). However, the term *implementation* can be seen to imply an instrumental application of a

concept (such as an MI or medical intervention) to a local setting (Latour, 1986) and in the context of healthcare, it has been argued that complexity needs to be embraced in the endeavour to implement various interventions (Reed et al., 2018). Also, MIs have more social and relational aspects than medico-technical innovations and have therefore been argued to be even more complex to implement (Alänge et al., 1998). In contrast to the implementation view, other scholars have therefore stressed an organisation's active handling and adaptation of MIs in the implementation process and proposed alternative terms like *transposition* (Boxenbaum and Battilana, 2005), *adaptation* (e.g., Ansari et al., 2010), *translation* (Czarniawska and Sevón, 1996; Latour, 1986; Røvik, 2016), and *contextualization* (Gebauer et al., 2017; Örtenblad, 2015; Røvik, 2008). In this thesis, *contextualization* is used generally for the application of an MI to a context, which can be approached as an *implementation* (aiming for high fidelity between the theoretical concept and the resulting practices) or as a *translation* (indicating an active adaptation of an MI to fit the properties and needs of the context).

Hence, contextualization can result in local management practices with varying degrees of fidelity to the theoretical description of the MI (Ansari et al., 2010). Røvik (2011, 2008) described three types of modus operandi for the contextualization of an MI: reproduction, modification, and radical transformation. While *reproduction* refers to attempts to copy an MI or a management practice instrumentally as described or designed elsewhere, *modification* and *radical transformation* allow different degrees of *addition* (that is, the integration of local practices or elements from other MIs), *subtraction* (of some aspects of the MI to be implemented), or even a more comprehensive local *alteration* of the MI. Røvik (2011) meant that contextualization in practice often follows the two more transforming modi. Furthermore, Rogers (2003) argued that organisational members that have participated in transforming an MI to a greater extent experience ownership over the MI and, therefore, the degree of transformation in the contextualization may correlate positively with the sustainability of improvements. Active adaptation of an MI by organisational members has also been suggested to facilitate the success of implementation (Nembhard et al., 2009).

Several scholars also acknowledge that contextualization of MIs into an organisation often builds on – rather than fully replaces – previously adopted MIs, making local management practices unique mixtures of elements from different MIs and local solutions (Alänge et al., 1998; Benders and Verlaar, 2003; Dale et al., 2002; Gebauer et al., 2017; Marshall, 2009; Røvik, 2008). Managers have also been advised not to adopt new MIs "without first reflecting on the relevance of existing internal processes" (Eriksson et al., 2021, p. 1). Hence, the local set of management practices can be seen as the result of accumulated managerial decisions, whether conscious or unconscious. However, applying a complexity science perspective, the management practices can also be seen as the result of an emerging development, which can only be partially and indirectly affected by management (Richardson, 2008; Rouse, 2008). More recently, several scholars have also combined implementation science and complexity science, emphasising the need for contextual adaptation and emergent development in self-organising social systems (Braithwaite et al., 2018; Greenhalgh et al., 2017; May et al., 2016; Pfadenhauer et al., 2017). For example, May et al. (2016) developed a view of implementation processes in CASs as non-linear and dynamic and pointed to the importance of adaptability of both MIs and the context, and the power over actors and resources, as influential factors for the outcome of implementations. Braithwaite et al. (2018) assume a similar view and suggest that

change needs to be stimulated by external forces (like legislation or multiple stakeholder agreements) and feedback loops. They also advise the consideration of existing networks and socio-technical context and the understanding of that complexity extends the time necessary for change to take place. Hence, contextualization of MIs in healthcare settings can be seen as a process of active translation, modification, and adaptation, which from a managerial perspective is difficult to define in advance, or control in detail. However, managers need to consider the entire socio-technical context holistically and stimulate and facilitate the contextualization process.

2.3.4 Key concepts from the literature of management innovations as used in the thesis

As illustrated in Figure 2.4, for the adoption of MIs from a meso-level management perspective, the literature can be seen to describe a process of how MIs are taken into the organisation, transformed, and finally integrated into the management practices to a greater or lesser extent. First, in various ways, managers become aware of MIs by attraction or imposition. They choose or accept to adopt them, which entails a process of contextualization. The contextualization implies a translation of the MI to the local organisational context and a transformation of the current management practices, intended to foster improvements.

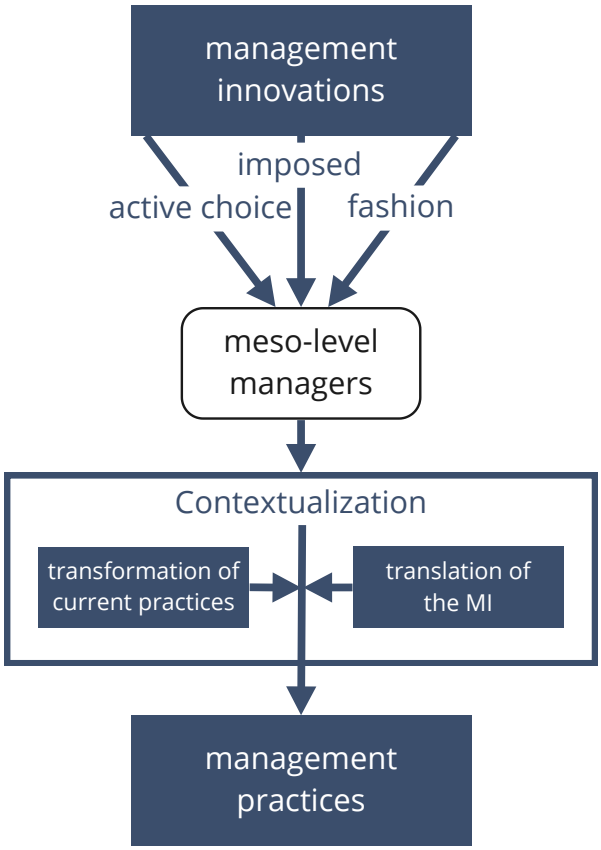

Figure 2.4. *Key concepts from the studies of MIs relevant to the purpose of this thesis. After choosing or accepting to adopt an MI, the process of contextualization adapts the MI to the context and the context to the MI, resulting in a greater or lesser change in management practices.*

2.4 Conceptual framework

Returning to the purpose of the thesis, the three theoretical perspectives described in this chapter contribute in different ways to how MIs can be understood and used to achieve improvements and handle complexity in healthcare from a meso-level management perspective. Complexity science can be seen to describe an important aspect of the context. QM is an established approach to pursue improvements from a managerial perspective, and MIs constitute a primary phenomenon of interest. The contextualization of MIs into a local context is pointed out as crucial for the resulting improvements (or lack of improvements). The RQs are about how healthcare managers can pursue improvements in this complex context independent of or through the use of the multitude of MIs that are at hand. In Figure 2.5, a conceptual framework based on key concepts from the three theoretical fields is presented, outlining 1) the CAS of healthcare including the typical system components: internal actors, external actors, technical features, and logics, and 2) the elementary chain of MIs being contextualized into altered management practices, and further on to management practices from different theoretical origins, hopefully resulting in improvements (even though the actual improvements are outside the scope of this thesis). The three RQs relevant to this thesis are also indicated. RQ 1 concerns how meso-level managers can combine different (new and/or current) MIs, RQ 2 how managers can pursue improvements in their settings within the complex context, and RQ 3 how MIs can be used in that pursuit.

As discussed in this chapter, healthcare managers at the meso-level can be seen as situated in the middle of a CAS composed of numerous interrelated components of both a social and technical character (Begun et al., 2003; Braithwaite et al., 2017). Typical examples of system components are technical features of care (the nature of medical best practices) and internal and external actors (e.g., patient organisations, authorities, and groups of healthcare professionals with associated subcultures) (Braithwaite et al., 2017a). In addition, various logics permeate the healthcare system and are connected to other system components (Glouberman and Mintzberg, 2001; Storkholm et al., 2017).

Furthermore, QM advocates the appreciation for a system as a starting point. The system, as viewed in QM, differs from the view of a CAS in complexity science in that QM sees the system as possible to *manage* and is focused on a shared aim (Deming, 1994), while complexity science assumes that (complex) systems are *inherently impossible to comprehend and control* (Richardson, 2008). Both views are acknowledged in this thesis, where meso-level managers are seen to be situated within a CAS, but management practices – which include QM practices such as an appreciation for a system, knowledge of theories and the study of variation can be seen as important for the pursuit of improvements – are also relevant to appreciate a system and *attract* change. Moreover, for meso-level managers' use of MIs to achieve improvements, contextualization is a key concept. The process of contextualization usually includes a translation of the MI and transformation of the context.

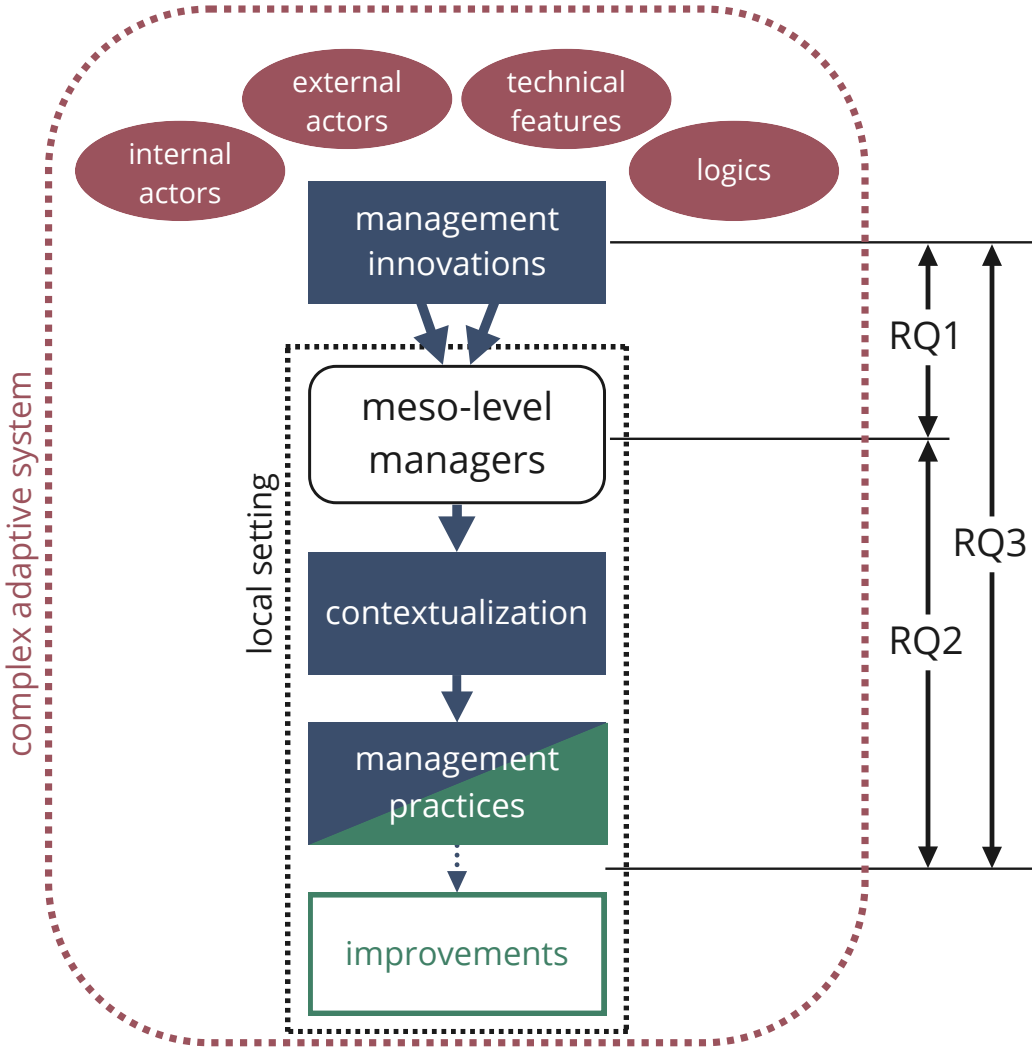

Figure 2.5. *A conceptual framework integrating the perspectives of complexity science, QM and MI to use MIs to achieve improvements and handle complexity in healthcare from a meso-level management perspective. The meso-level manager is responsible for a local setting, which is situated within a CAS. Colours indicate the contributing theoretical perspective, where red represents complexity science, green QM, and blue MIs.*

3. METHODOLOGY

In this chapter, I describe the context in which I have conducted my studies and my research strategy and design, based on my philosophical views. Later, the specific studies and the research methods used to answer the research questions of this thesis are presented. Lastly, aspects of research quality are discussed. Since I have been personally and deeply involved with the context, reflections on my own role, assumptions and development are also integrated throughout the chapter.

3.1 Research context

The context of all the empirical data included in this thesis is the adult psychiatric care at Sahlgrenska University Hospital in Gothenburg, Sweden. In Sweden, as in many other European countries, healthcare is provided for its citizens by the state. The Swedish system is divided into 21 self-governing regions, which provide healthcare within their geographical areas and are run by elected political assemblies. Most healthcare is provided by publicly operated hospitals and primary care organisations, but publicly funded private actors are also common. Care providers relying entirely on patient fees or private insurances exist but are less common.

Gothenburg is the next largest city in Sweden, situated in Region Västra Götaland, which is the next largest region in Sweden, with over 1.7 million citizens and a yearly healthcare budget of over 4.4 billion euros. Sahlgrenska University Hospital is the largest hospital in the region (and in all of Sweden) with six divisions, 54 departments, a budget of approximately 2 billion euros, and 17,000 employees, with 2,000 people working within the five departments for adult psychiatry. The departments are organised in the same division, but together with somatic departments. During the period of my research, the heads of division have not had any background, or direct involvement, in psychiatry. Hence, collaboration between the heads of the psychiatric departments is based on a collective wish to strive towards united and integrated adult psychiatry. Within this context, I have been employed by the Department of Psychotic Disorders as a section manager (meaning head of physicians) for the first four years, deputy head of a department for 2.5 years and, during the last years of my doctoral studies, as a project manager responsible for digital development at an overall level within psychiatry and development of hospital-wide digital competence.

Hence, the context of the studies has to a large extent been psychotic disorders and their treatment, both in in- and out-patient settings. The main groups of patients in this care suffer from schizophrenia, schizoaffective disorder, or delusional disorder. These conditions are characterised by chronicity with a life-long risk of relapses, a distorted perception of reality, and often impaired cognitive abilities. The conditions per se have rarely been the focus of my studies, but the care operations, of course, have certain features which distinguish them from other types of care, but also features which are shared with care for patients with other chronic disorders. Since the 1990s, psychosis care has been built on long-term out-patient care, in which teams of (among others) physicians, nurses, psychologists, social workers, and occupational therapists provide individualized care for patients. Cooperation with patients' families and the municipal authorities, providing for example housing support and daily activities, is also fundamental. Historically, different schools of thought have existed on how to treat patients

(for example, professionals trained in psychodynamic and cognitive schools have often had an antagonistic relationship, impacting their inclination to adhere to standardised processes or not). Care has often relied on professionals' expertise and freedom, but structured approaches have been increasingly suggested. For example, resource group assertive community treatment (RACT) (Malm et al., 2015) is a model that has been used as a base for psychosis care in this setting. The model addresses the need to integrate several actors (the resource group) around the individual patient's unique problems and situation, which is a key aspect of this type of care. Another aspect is the tendency of patients to lose insight. That is, patients are not always aware that their perceptions (e.g., voices, sights, and feelings) are symptoms of a disorder and, hence, they might not request care. Hereof the need to be assertive and motivate patients for care, for example, continued medication. Moreover, even though the base of the care is in an out-patient setting, hospitalisations are sometimes needed and most of these hospitalisations are involuntary due to the lack of patient insight. In this setting, person- and patient-centred care (PCC) (Kitson et al., 2013) has been used to empower patients and involve them in shared decision-making to improve patients' experiences, trust in the care system, and adherence to care.

During the course of my doctoral studies, my organisation (primarily the Department of Psychotic Disorders, but also the other psychiatric departments at the hospital) has experienced several MIs and other developmental trends and events. Figure 3.1 illustrates the development from 2013, when I started my doctoral studies, up to 2022, including my own roles during different periods. When I started my research, lean had been promoted at the hospital for a few years and my department had adopted elements of the MI half-heartedly. VBHC was a rising star within healthcare and with the change to a new CEO, VBHC was strongly promoted and welcomed by me and others in the department for psychotic disorders, as it was also in other psychiatric departments. The vogue for VBHC lasted for about four years and ended abruptly when implementation at another large hospital in Sweden was heavily criticised and a new hospital CEO commissioned an investigation into the (lack of) evidence for VBHC. During the same period, PCC was also in fashion in the context and was implemented in the department of psychotic disorders from 2013. My own role also changed in a direction of a more overarching perspective and responsibility when the department of psychotic disorders was co-organised with another department for 2.5 years and I thence worked primarily with the digital development of psychiatric care. In 2020, the pandemic obviously had a major impact on healthcare. However, it had no critical implications for the research project.

Throughout my doctoral studies, I was directly involved in the operational and managerial aspects of the research, as I have held different management positions within the setting of the studies. I am also a physician by profession and during my doctoral studies, I became a psychiatrist. My medical background together with my management positions has of course given me a head start in understanding the context of many situations and a natural authority. These aspects are discussed more in the section about research quality. My background also implies an initial starting point in natural sciences and positivism, which has evolved significantly during my years as a doctoral student up to my present view of research and knowledge.

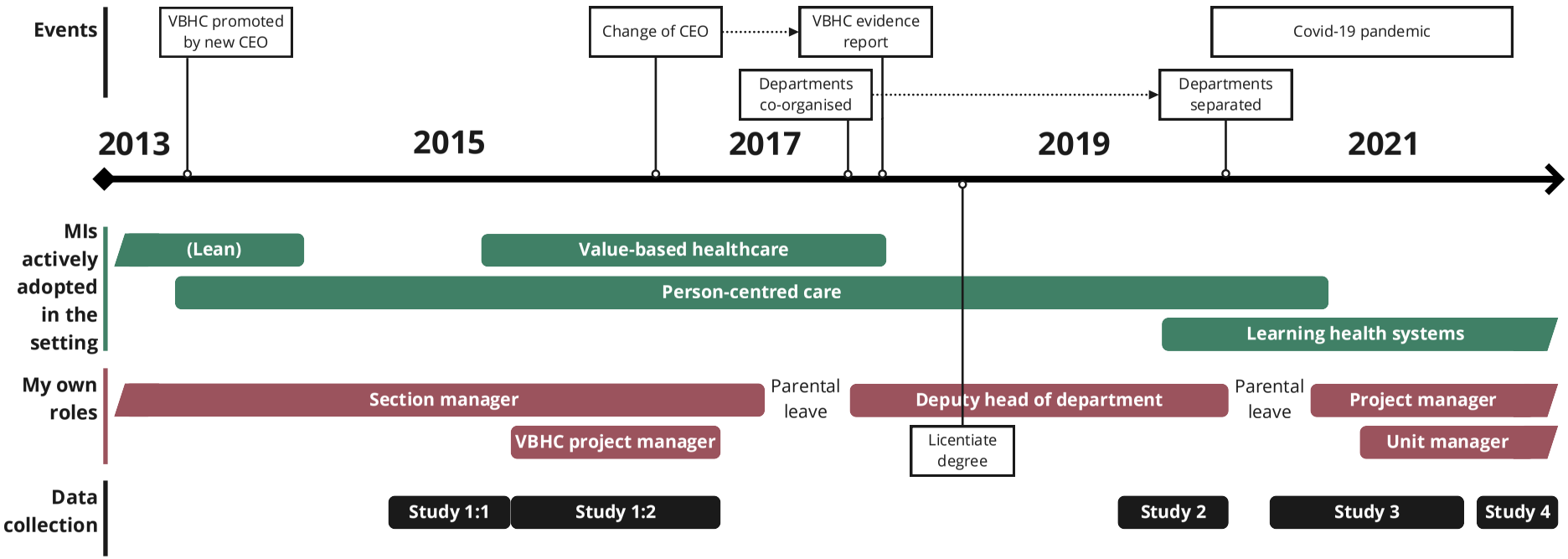

Figure 3.1. *Timeline of the period of my doctoral studies, including influential MIs in the context, my own organisational role, and data collection for the included studies.*

3.2 Ontological and epistemological standpoints

On a philosophical continuum of positivism to relativism (or postmodernism), I have adopted an intermediate stance. Inspired by pragmatism (Lorino, 2018) and realism (van de Ven, 2007), I hold *critical realism* as my primary view (Bhaskar, 1979; Wynn and Williams, 2012). Critical realists see scientific progress as an evolutionary process of error correction, bringing theory closer and closer to the truth (however never all the way to an absolute truth) (Azevedo, 1997). A similar stepwise evolution of knowledge towards greater utility is adopted by the adjacent view of pragmatism. However, pragmatism demotes abstract theorising about unmeasurable entities and focuses solely on the practical utility of a theory, irrespective of its philosophical underpinnings (van de Ven, 2007).

Critical realism implies an objective ontology, meaning that reality exists independently of human cognition but also that reality is an open system, which we cannot control directly. Epistemologically, critical realism entails the relativistic view that knowledge of reality is formed in conjunction with existing social context and our own perceptions and conceptual interpretations. The structures and mechanisms of social reality are too complex to ever fully explain but the goal of knowledge development is to advance towards ever better explanations (van de Ven, 2007; Wynn and Williams, 2012).

In summary, my view is that there is a reality that exists independent of the observer, but that reality is so complex that our attempts to describe it are always only approximations. These approximations are dependent on both our own preunderstanding and on theoretical frameworks. I acknowledge unmeasurable entities as potential building blocks for such approximations and believe that good approximations are dependent on multiple perspectives to better grasp the complex reality. The approximations (theories and frameworks) that are the best, should be judged by their usefulness to achieve our goals – practical or theoretical.

3.3 Research strategy

My research questions are focused on *how* improvements can be pursued in healthcare from a meso-level management perspective – an issue characterised by complex social interplay. Hence, a qualitative rather than a quantitative approach is suitable (Bryman and Bell, 2011; Flick, 2009). Furthermore, the research is fundamentally about fostering *change* in a context characterised by complexity and, as Pettigrew (1990, p. 269) argues, "explanations of change are bound to be holistic and multifaceted". Therefore, a longitudinal and naturalistic approach is applied, in the sense that I seek "rich descriptions of people and interaction in natural settings" (Bryman and Bell, 2011, p. 387).

Moreover, even though the RQs of this thesis are about *how* improvements are pursued, the intention of my research is not solely *about* improvements, but also *for* improvements. That is, in line with my pragmatic view on research and knowledge creation I aim to improve healthcare systems and operations that I have influence over or responsibility for, and at the same time, I try to further scientific knowledge about the phenomena in focus. For such an action-oriented and holistic endeavour for organisational improvement, engaged scholarship (Bansal et al., 2018) in the form of *action research* (AR) has been argued to be a fruitful research approach

(Coughlan and Coghlan, 2002; D. J. Greenwood and Levin, 2007). In this section, I discuss the action research approach and how I intend to use it to contribute to theoretical knowledge.

3.3.1 Contributing to theory development

Theory building is essential for scientific progress, but theories can also be of great use for practice (D. Greenwood and Levin, 2007). Answering the questions of what, how, why, and who/where/when (Whetten, 1989), theories aggregate and consolidate knowledge developed from the work of many scholars. Theories consist of factors and relations between factors and constitute a base for both further theorising and practical guidance (Suddaby, 2014). However, theories can be more or less general, and Maaloee (1997) proposed a classification of theories in three levels:

1. *Grand theories,* which have been used over extended periods and have established approaches, methods, and lines of thought (e.g., classical management, philosophy of science),

2. *Middle-range theories*, exist on a discipline level and reflect relations between a set of concepts (e.g., quality management and complexity science)

3. *Small-scale theories,* propose connections between a limited number of concepts, which have not yet been established as theories and do not need to meet all criteria for being a real theory. (e.g., individual MIs like VBHC and LHS)

While the general validity is greatest for grand theories, the practical applicability increases the smaller the scale of theories. Applying this classification in the context of this thesis, *management practices* could be seen as the fourth level below small-scale theories. Aiming to investigate and improve healthcare management, my research is concentrated on the borderland between management practices and small-scale theories with a high level of applicability.

Principally, my research is focused on practical phenomena connected to improvements and MIs (and on the MIs themselves as both theoretical concepts and practical utilisations). On these phenomena, theoretical perspectives (for example QM and complexity science) are applied to highlight different aspects of the phenomena that can further a more holistic understanding. That is, I aim to advance the understanding of MIs and improvement work as related parts within a greater, complex environment. This approach corresponds to what Boyer (1990) labelled scholarship of integration and scholarship of application.

Mere application of theory to practice is, in a scholarly context, sometimes criticised for being consulting rather than research. However, *scholarship of application* has a broader and more explorative meaning. As Boyer et al. (1990, p. 23) argue, “the term itself may be misleading if it suggests that knowledge is first ‘discovered’ and it then ‘applied.’ The process we have in mind is far more dynamic. New intellectual understandings can arise out of the very act of application.” Developing an improved understanding of practical phenomena by applying concepts and theories is an essential approach in my research. For example, the understanding of VBHC could be improved if its contextualization was seen as a result of translations rather than implementation, as described in paper 2.

Furthermore, *scholarship of integration* means "interpretation [and] fitting one's own research or the research of others into larger intellectual patterns" (Boyer, 1990, p. 19). In my research, relating a finding or a concept (like an MI) to several theories to investigate alternative interpretations and implications is another important approach. For example, in study 2 the value configurations framework was connected to different coexisting logics to elucidate how it can be understood and applied in a healthcare context. By integrating perspectives, a deeper understanding of the studied phenomena is furthered. Theoretical contributions can also be made by combining different theories to increase their utility in relation to practical or theoretical issues, as done in study 1 and this thesis.

Thus, in summary, I aim to conduct action-oriented research about healthcare management by applying and integrating management practices and theories to make contributions at the level of small-scale theories.

3.3.2 The action research approach

The term AR was first coined by Kurt Lewin in the 1940s (Lewin, 1946) and has evolved over the years to become an established alternative to more traditional research approaches (Herr and Anderson, 2005; Reason and Bradbury, 2001). AR implies research *in* action rather than merely *about* action and the approach builds on an iterative process where the problem is deeply grounded in practice and the understanding of the research issues is developed abductively (Alvesson and Sköldberg, 2017; van de Ven, 2007). The extensive practical involvement provides opportunities for unique access to data and in-depth understanding, which is valuable to answer research questions about *how* managers can pursue improvements and handle complex contexts. The validity of the findings is further strengthened by the longitudinal involvement that provides the opportunity to test hypotheses and potential solutions on practitioners to confirm their accuracy and utility (Herr and Anderson, 2005).

AR has long been used for the study of management (Coughlan and Coghlan, 2002; Shani and Coghlan, 2019) and numerous publications on the conduction of AR studies have been published, both in general (D. Greenwood and Levin, 2007; Herr and Anderson, 2005; Reason and Bradbury, 2001), for specific contexts such as service organisations (Elg et al., 2020), and the case of AR in one's own organisation (Coghlan and Brannick, 2014; Roth et al., 2007). Furthermore, the approach has attracted increasing interest within healthcare (Bradbury and Lifvergren, 2016; Bridges and Meyer, 2007; Koch and Kralik, 2006; Roberts et al., 2021) and has been argued suitable for studies of CAS (McDaniel et al., 2009). AR has also been advocated as a rewarding research design for the pursuit of sustainable organisational transformation in healthcare (Bridges and Meyer, 2007; Lifvergren et al., 2015).

As indicated above, I have chosen to adopt AR as my main methodological approach to be able both to improve my organisation and to further my own knowledge and that of the scholarly society. To understand an organisation, and hence add to the knowledge base for aspects of how systems, in general, can be improved, attempts to interfere with the organisation can be particularly informative and it has been argued that the best way to understand a system is by trying to change it (Schein, 1985). Furthermore, AR in one's own organisation has been advocated as advantageous for inquiry of how to bring about changes in social contexts (which

are often messy and confusing), as it requires "contextually embedded knowledge which emerges from experience" (Coghlan and Brannick, 2014, p. 4).

However, even though the overall approach is inspired by AR, not all studies are AR studies. As described below, study 2 and the first part of study 1 are exploratory studies investigating the context where improvements (based on MIs) could be implemented. In study 1, the insights are used in the following AR-inspired approach, while study 2 was followed by a literature review to investigate how a key concept (networked organisation) had been used in other settings, to contribute to the theoretical understanding of that concept.

3.4 Research design

Research design refers to the framework for how research activities are planned, from the formulation of research questions, through sampling and approaching the field, to data collection and analysis (Flick, 2009). As described above, my overall methodology is pragmatic and action-oriented, and AR has influenced the research design. However, as is usual for AR (Herr and Anderson, 2005, chap. 5) and qualitative research in general (Flick, 2009; Maxwell, 2005), design and methodology have evolved during the process of my doctoral studies. The specific designs of the included studies have been adapted to fit current conditions and issues of interest in a non-linear way.

This section outlines the included studies in their evolving context and in relation to the research questions of this thesis. Finally, it summarises the more specific designs of the studies (further detailed elaborations can be found in the appended papers.)

3.4.1 Four included studies

The empirical foundation of this thesis consists of four studies with separate sets of data. Within the overall purpose of the research, the issues to study have been chosen based on contemporary problems in the practical context. *Study 1* was initiated at a time when the MI value-based healthcare (VBHC) was broadly promoted in Sweden and at the Sahlgrenska University Hospital. The focus of the study was to investigate how the value concept (as a key driver in the MI VBHC) could be used to pursue improvements. The study included one exploratory and one action-based part, which resulted in two separate papers. The VBHC implementation was received positively in the organisation, but some elements were omitted. For example, there was no reorganisation of care processes or implementation of supportive IT systems, which instead became contributing rationales for studies 2 and 4. A few years later, *study 2* was initiated based on a perceived pressure from authorities and top management to both standardise care processes and to make care more person-centred. These pressures seemed to be based on contradictory logics, and the starting point of the study was to investigate if the value configurations framework (as an MI) could help healthcare managers to 1) handle contradictory logics and 2) pursue improvements. The results were presented in paper 3. *Study 3* is an extension of study 2 and seeks to investigate how one of the value configurations presented in the framework – value networks – has been used and discussed in other settings. Networks emerged in study 2 as an interesting configuration with the potential to make care more efficient and was also proposed as a target image for the organisation. It is also an important concept in LHS, which was being discussed in the context at the same time. Therefore, a literature review

was conducted and published as paper 5. Finally, *study 4* was designed as an actual AR study grounded in the practical problem of how to exploit the potential of digitalisation to improve care efficiency. However, this study also relates to study 1. During the implementation of VBHC, it had become apparent that both good outcome measures and useful tools to feedback data to clinicians were lacking. The development of supportive IT systems to easily collect outcome data and facilitate learning had therefore been initiated. During study 4, LHS was identified as a useful conceptual base for the AR issue. Therefore, the AR study came to focus on how an LHS can be realised from the meso-level within an existing healthcare organisation as a means to pursue improvements despite the complexity of the context. The study was presented in paper 4.

As discussed in section 3.3.1, AR served as a main methodological approach, even though not all studies were AR studies. Relating to the framework for service action research developed by Elg et al. (2020) (which is also used in paper 4), the entire research process can be outlined as an AR journey. As shown in figure 3.2, AR has inspired the design of the studies, which can be seen in for example the starting point in practical issues, the emergent and context-dependent foci, and the abductive approach.

The choices of what MIs to study have thus been pragmatic and based on what has occurred or been perceived as relevant in relation to practical issues. However, a common theme for the MIs mostly focused on in the studies (and especially in the ways that they have been applied) is that they all aim to create a *system* for how to run and/or improve operations. That is, these MIs include structural solutions for how to design organisation, technology, or measurements to make the system more efficient (directly or by facilitating incremental improvements) without specific tools or approaches that the manager needs to use continuously. VBHC suggests a structural integration of care for single patient groups, the value configurations framework implies the differentiation of types of care into different structural configurations, and LHS promote structuring information systems so that a learning culture is fostered. Both VBHC and LHS also emphasise presentation of outcome data to clinicians to drive continuous improvements. The reason that this type of MIs (that focuses on creating efficient care systems for single patient groups) has been in focus may be related to the concentration on meso-level management, which handles the *organisation of care* at a relatively detailed level but not the hands-on leadership of clinicians or macro-level aspects like reimbursement systems.

Furthermore, the RQs of this thesis are focused on the pursuit of improvements and the use of MIs in general, rather than on specific MIs. The four studies all relate to the pursuit of improvements and aspects of contextual complexity, and the first two studies relate to combinations of parallel MIs (since each of the three configurations in the value configurations framework can be seen as an MI). The relations between research questions, studies, and papers are outlined in Figure 3.3.

The characteristics of the studies and their key contributions are further described in Table 3.1. In the next section, I describe the specific methods used in each study.

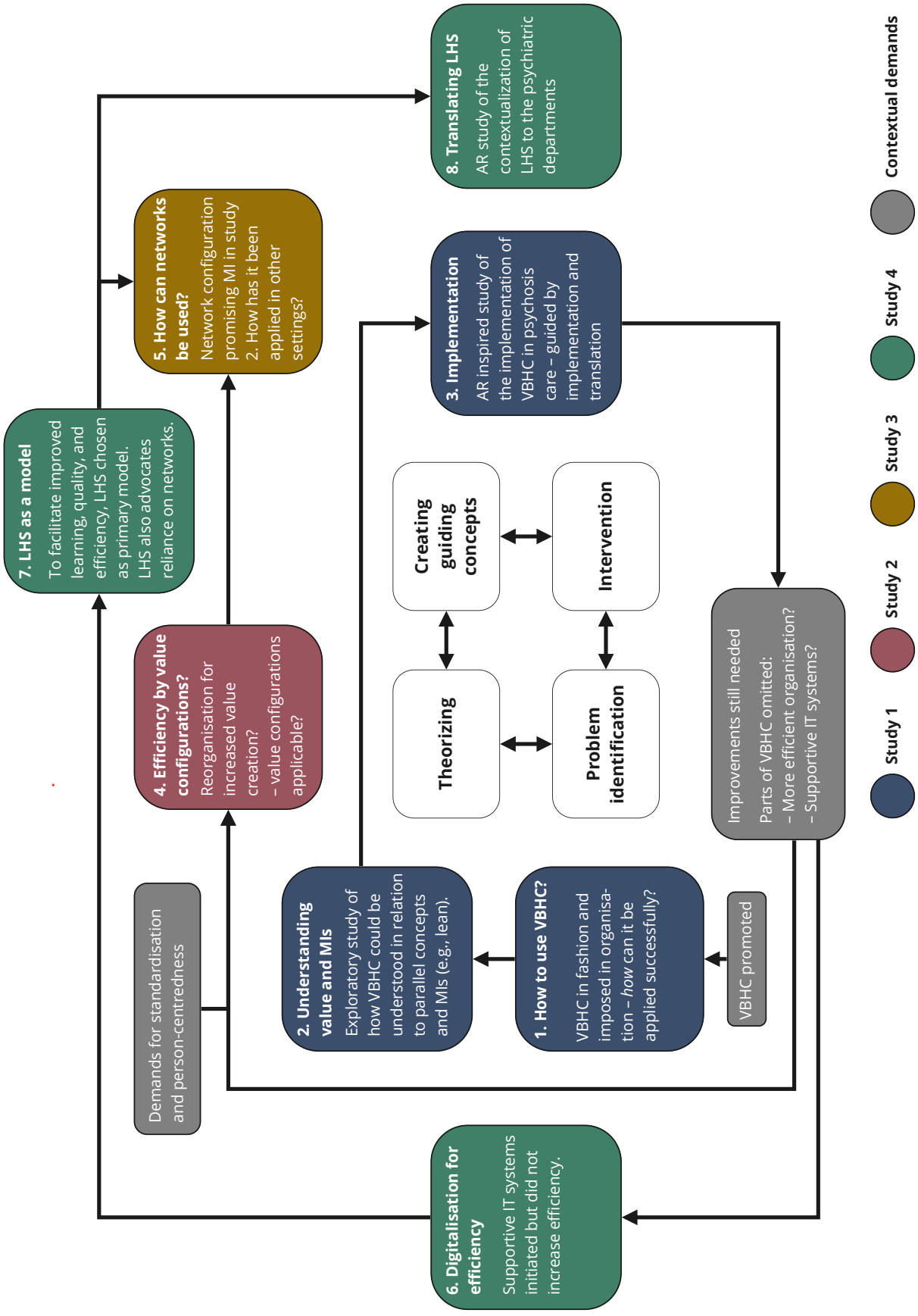

Figure 3.3. *The studies outlined as an AR journey starting from the framework for service action research developed by Elg et al. (2020). Important stages and events are roughly numbered based on chronology, even though there are substantial overlaps.*

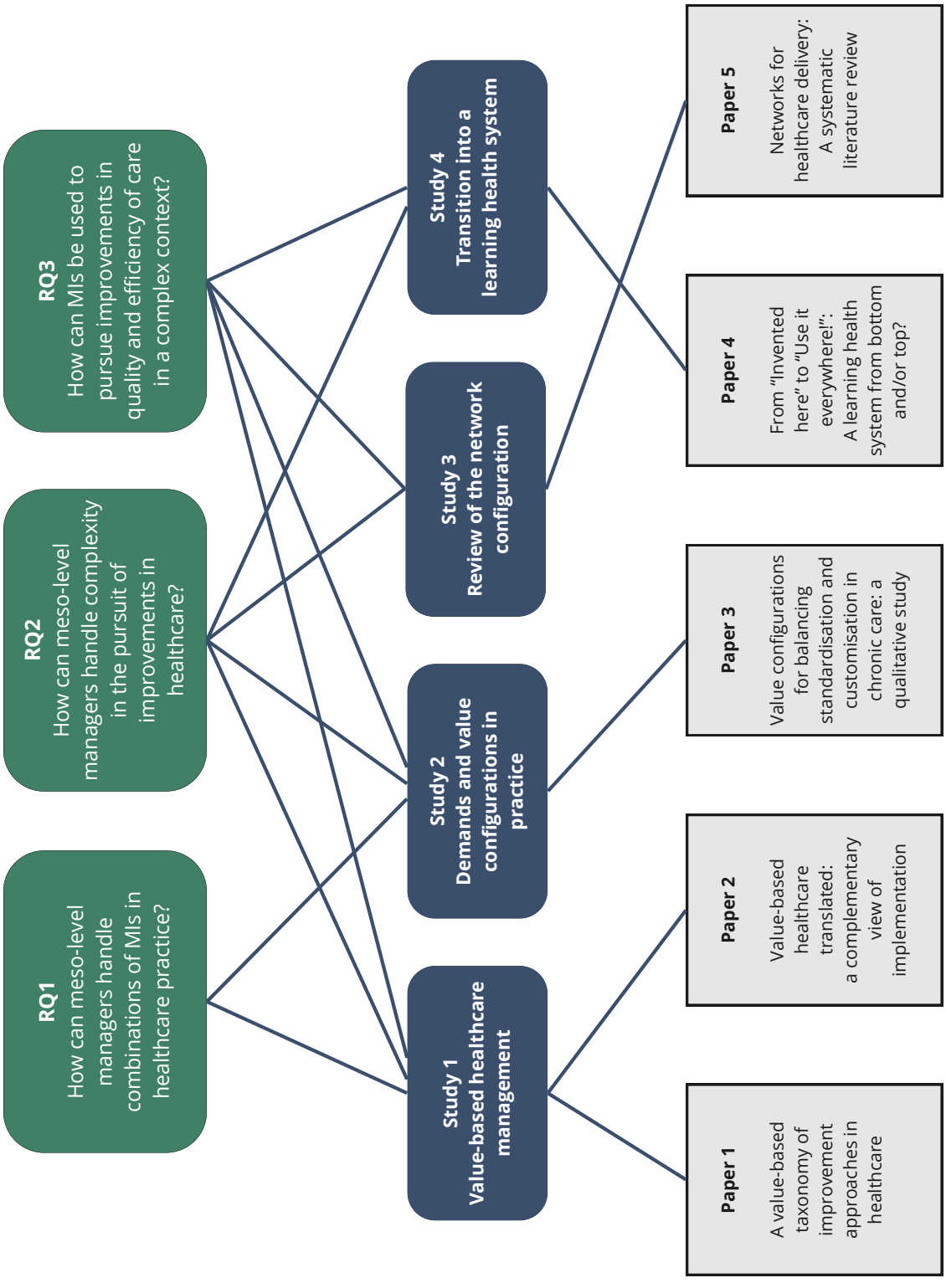

Figure 3.2. *Overview of the included studies connected to research questions and papers.*

Table 3.1. *Overview of the included studies.*

Study	Purpose	Study design	Methods	Relation to RQs	Paper(s)
Study 1 – Value-based healthcare management	To investigate how the MI *VBHC* can be translated into a complex healthcare context to manage and improve care.	Single case study based on interviews and AR.	• Semi-structured interviews • AR	RQ1 RQ2 RQ3	Paper 1 Paper 2
Study 2 – Demands and value configurations in practice	To explore the potential of the *value configurations framework* for managing demands for customisation and standardisation in practice.	Case study based on focus groups, document analysis and interviews.	• Semi-structured interviews • Focus groups • Document analysis	RQ1 RQ2 RQ3	Paper 3
Study 3 – Review of the network configuration	To explore how the *value network* configuration is interpreted and used in other contexts and scientific literature.	Systematic literature review	• PRISMA design for screening and review	RQ2 RQ3	Paper 5
Study 4 – Transition into a learning health system	To explore how an organisation, with an existing culture and tensions between parallel logics, can be improved through the use of MIs.	AR study	• Focus groups • AR	RQ2 RQ3	Paper 4

3.5 Research methods

In this section, the specific methods for data collection and analysis are presented for each of the studies. More details can also be found in the appended papers.

3.5.1 Study 1

Addressing all RQs, study 1 focuses on how the MI *VBHC* can be translated into a complex healthcare context to manage and improve care. The study started with a first phase, in which the context was cross-sectionally explored to understand how the concepts of value and VBHC were interpreted by different stakeholders, and how they could be related to other concurrent MIs for improvement of care operations (RQ 1 and 2). In a second phase, the contextualization of VBHC to pursue improvements was studied and inspired by AR (RQ 3). Thus, what was learned from the first phase was used to inform the second phase.

Data collection and analysis

First, I conducted three expert interviews (Flick, 2009) to orientate myself in the field of VBHC in general and in relation to psychiatry. Questions were asked about experiences of VBHC and views of the value concept. These interviews were transcribed and used to construct a semi-

structured interview guide. To capture the complexity of the value concept in the case context, 17 semi-structured interviews with managers and professionals were conducted, partly by me and partly by a master's student. The interviewees were sampled purposively to include a broad array of perspectives, for example, that of physicians, nurses, managers, and in- and out-patient care. All the interviews were recorded and listened to independently by both interviewers to ensure that the written answers corresponded correctly to the recordings. Answers to the key questions in the interview guide were identified and illustrative quotes were transcribed verbatim. These results were then analysed, inspired by principles of pattern matching (Yin, 2009), where themes in the answers to the key questions were compared with the categories of views on value described by Gummerus (2013). Next, together with the first co-author of paper 1, I conducted three key informant interviews (Bryman and Bell, 2011) for confirmation of preliminary results (the taxonomy presented in paper 1).

In the second phase, I led the implementation of VBHC into the department of psychotic disorders undertaking the role as one of two cooperating project leaders. The implementation was imposed by upper management and, hence, the study was not a problem-driven AR. However, focusing on *how* VBHC could be translated to be useful in the context, the approach was heavily influenced by AR (e.g., in terms of inclusion of practitioners in interpretation and emergence of the methods used). Data of various types were collected to capture the process holistically (MacQuarrie, 2010). 53 documents were collected, six key meetings recorded in full, and I wrote 62 field note entries, most of them immediately after meetings. On 13 occasions I also invited the project group to jointly reflect on the implementation process in audio-recorded sessions that lasted between 5-15 minutes and took place immediately after ordinary meetings. All data were collected in an event data file inspired by the method of data analysis matrices described by Maxwell (2005). Data were ordered chronologically, key observations noted in one column and my own reflections on the observations in another column. Each month I made a summary in the event data file structured by content, process, and inner and outer context (Pettigrew, 1987). In these summaries, I also reflected on the process to develop a meta-level understanding. The event data file was jointly analysed by me and the co-author of paper 2, continuously during the study and in the end when writing up paper 2, allowing the co-author to interpret both the observations and factual data himself and to grasp the longitudinal development as interpreted by me. In dialogue between us, findings of interest were identified and scrutinized. This insider-outsider approach (Breen, 2007; Pugh et al., 2000) was applied to provide additional (primarily theoretical) perspectives and strengthen the quality of the interpretation of data. In the analysis, we noticed that the concept of VBHC was modified during the process and therefore we compared findings to different theories of how to realise innovations, in line with principles of abduction (Alvesson and Sköldberg, 2017). In a deductive phase, we applied the consolidated framework for implementation research (CFIR) (Damschroder et al., 2009) and the perspective of translation of MIs (Latour, 1986; Røvik, 2011, 2008) to test how the findings could be interpreted similarly or differently depending on the frame of reference. In two perspectives (relating to two domains of CFIR) we found differences, where we interpreted the translation view as more useful to guide the continued process of contextualization and to understand the results.

3.5.2 Study 2

The second study informs all of the RQs, exploring the potential of the MI *value configurations framework* (Stabell and Fjeldstad, 1998) for managing demands for customisation and standardisation in practice. Application of the value configurations framework had been connected to the potential for improvements in healthcare (Christensen et al., 2009) but its applicability for chronic care was not well established. Hence, this case study was therefore designed to investigate its applicability and potential for the development of care organisations in the case of my practical context (RQ 3). During the study, we expanded the research focus to include current means of balancing standardisation and customisation in the setting (RQ 2). We also investigated how different value configurations within the framework (which here can be seen as different but parallel MIs in themselves) can be combined in practice (RQ 1).

Data collection and analysis

First, two focus groups (Bryman and Bell, 2011) with a total of nine participants were conducted jointly by me and the first co-author of paper 3, introducing the value configurations framework to managers and care developers within the case organisation. The participants were then asked to relate the framework to their own practice (if possible), to investigate if the framework was applicable. The potential of the framework for the development of the organisation of and care operations was jointly discussed. During the focus groups, I took on an organising role while the co-author observed, asked clarifying questions, and suggested preliminary interpretations to the participants. This approach was chosen to allow the co-author to engage fully in understanding the responses in relation to the theory, while my preunderstanding meant that I could quickly understand internal jargon and terms (e.g., abbreviations for different units or medical interventions) and relate practical descriptions to the theoretical framework. The focus groups were audio-recorded and transcribed verbatim, and written material was collected. After the first analysis by me and the first co-author, I developed a semi-structured interview guide to investigate manifestations of demands for standardisation, customisation, and improved resource efficiency. Key interviewees were selected following a complete collection strategy (Flick, 2009), as all managers with at least half a year of management experience were asked to participate. I conducted and transcribed the six interviews verbatim. All transcripts and documentation were entered into NVivo and coded using a scheme developed deductively from literature (Bryman and Bell, 2011; Maxwell, 2005) on the value configurations framework and classifications of types of standardisation and customisation (Mannion and Exworthy, 2017; Timmermans and Epstein, 2010). In addition to the codes developed from literature, codes for emerging themes were then inductively added. All parts of transcripts that were connected to a code were read and analysed to see patterns in how the perspective (code) was described. This procedure was conducted after the focus groups and then again after the interviews. I developed the coding scheme together with the co-authors and coded some of the material. The co-authors then coded the same material to compare and calibrate our interpretations before I coded the rest of the material. Finally, we analysed the material jointly.

3.5.3 Study 3

The third study focused on one of the value configurations investigated in study 2: value networks. In the findings of study 2, value networks (which can be seen as an MI) had been

pointed out as a target image for how to organise care efficiently, and networks were also perceived to be increasingly promoted in scholarly discourse, often related to the increasing complexity of healthcare (e.g., Fjeldstad et al., 2019). In my empirical context of psychiatry, the use of networks had also been discussed for some time to integrate the many actors involved in chronic mental care (e.g., social services, families, and primary care) connected to specific care approaches (for example RACT (Malm et al., 2015)). Furthermore, inter-organisational networks are an important element of LHSs, which were increasingly discussed in my organisation at the time (overlapping study 4). However, questions remained about how to design and create efficient networks. Therefore, I wanted to investigate how networks, as a popular but vaguely described MI, can be used to pursue improvements (RQ 3) and how complexity is handled in healthcare networks (RQ 2). For example, I was interested in the rationales or logics for the application of healthcare networks, how networks had been constructed (or spontaneously emerged), and in what contexts they had been used. Therefore, a systematic literature review was conducted.

Data collection and analysis

The design of the systematic literature review was built on the PRISMA method (Moher et al., 2009). A search strategy was developed by me and the co-authors of paper 5, including two librarians, to capture organisational networks in healthcare aimed at the integration of resources, co-production, and/or creation of value. The Scopus, PubMed, Web of Science, and Cochrane databases were searched, rendering 1,002 articles. Inclusion criteria were developed focusing on descriptions of organisational networks that included healthcare, presented in journals or conference proceedings. Using Rayyan.ai, three of the authors shared the task to screen the abstracts for eligibility, our impressions were then discussed and the screening was iterated with narrowed inclusion criteria. The abstracts were divided in three sets and the authors assessed two different sets in the two screening rounds. 150 articles passed the screening and were retrieved in full text and assessed for eligibility, again switching the set of papers so that each author had assessed each article at least once. Finally, 80 articles were included in the review and descriptive statistics were retrieved using Scopus and the software "Publish or Perish" (Harzing and van der Wal, 2008). Next, a thematical analysis was conducted (Brooks et al., 2015), in which the three authors involved in the screening coded a third of the articles each according to categories developed from our initial research interest. In addition to the thematic analysis, a bibliometric analysis was also conducted using VosViewer, to discover clusters of publications. Three clusters were identified based on bibliographic coupling (minimum 10 documents), which could be connected to different themes of how networks had been used and discussed. The coding from the thematic analysis was used to characterise the three themes.

3.5.4 Study 4

Study 4 was designed as an AR study from start, building on a model for service AR developed by Elg et al. (2020) and addressing RQ 2 and 3. The background to the study was that my own department together with the other four psychiatric departments at the hospital had invested in digitalisation for several years. Despite this, the heads of departments were frustrated to see that even though promising projects and innovations had emerged, the desired effects of increased efficiency and broad use of digital solutions did not happen. I proposed an AR project to address this problem and got acceptance. In dialogue with the heads of departments, an AR team was

formed. The co-author of paper 4 was involved as an outside researcher to provide feedback on the design and for the continuous analysis of data. Additional theories (primarily the MI LHS) were included abductively (Alvesson and Sköldberg, 2017) as the issues of how to utilise digitalisation for improvements crystallised and evolved.

Data collection and analysis

Data was collected holistically (MacQuarrie, 2010), meaning that I collected all types of data that could help document and understand the process. I wrote continuous field notes in a research journal (Coghlan and Brannick, 2014; Humphrey, 2007) and saved all documents and presentations for various forums that I and others in the AR team produced. Six AR team meetings were recorded. Four nominal group-based workshops (Gallagher et al., 1993) were held together with stakeholders within the organisation. The web-based visualisation tool Miro (www.miro.com) was used both in the workshops and other meetings to capture and structure interpretations, plans and what we learned. The emergence of conceptualisations and the use of theory for the issues at hand could thus be traced step-by-step in the final analysis. The whole AR team was involved in the continuous analysis of data, for example in theorising on the identified practical problems and understanding how hinders to development could be understood from different perspectives, inspired by cooperative inquiry (Coghlan and Brannick, 2014). Finally, I analysed all data to draw general conclusions. The preliminary findings were further developed in joint analysis with the co-author of paper 4, providing an outsider perspective, and then with the AR team for confirmation, refinement, and dissemination of learnings.

3.6 Research quality

3.6.1 How to assess the quality of qualitative research?

Quality criteria for qualitative case studies in the field of management research is still an issue of debate in academic society (Cassell et al., 2006; Flick, 2009; Symon et al., 2018). Scholars more prone to objectivism often use the concepts of validity and reliability (Yin, 2009), as established for natural sciences. Opposing this view, scholars assuming other ontological and epistemological views have proposed numerous criteria to assess the quality of qualitative research, which are closely related to each other and partly overlapping (Halldorsson and Aastrup, 2003; Healy and Perry, 2000; Johnson et al., 2006; Miles et al., 2018). For naturalistic research based on a critical relativist view, important work on research quality has been presented by for example Lincoln and Guba (1986) and Shenton (2004), advocating *trustworthiness* as a measure of the goodness of research. Trustworthiness is composed of four criteria, each corresponding to a criterion in quantitative research: credibility, transferability, dependability, and confirmability. Table 3.2 demonstrates how these quality criteria have been applied in the included studies.

Table 3.2. *The criteria for the trustworthiness of naturalistic qualitative research (Halldorsson and Aastrup, 2003; Lincoln and Guba, 1985; Shenton, 2004) and their application in the studies included in this thesis.*

Quality criterion	Definition	Consideration in my research
Credibility	The correspondence between the respondents' interpretation of reality and the researcher's presentation of the findings.	• Multiple data sources for triangulation and holistic comprehension (study 1, 2, and 3). • Confirmation of preliminary findings in follow-up interviews (study 1 and 2), workshops (study 2), and reflection sessions (study 1 and 4). • Structured coding of data from interviews and documentation in NVivo for joint analysis by me and my co-authors (study 1). • Independent analysis of interview data by me and another researcher (study 1 and 2). • Insider-outsider approach for data analysis (study 1, 2, and 4) (see also Confirmability below)
Transferability	Description of the setting, context, and findings that make comparisons between sending and receiving contexts possible.	• Hands-on and comprehensive descriptions of the setting and research processes (study 1, 2, and 4). However, due to the limitations of the journal article format, there is often a trade-off for what to include. Further descriptions are provided in this thesis.
Dependability	Emergence of methods for data collection is trackable and based on clear rationales, allowing the study to be repeated for a similar purpose.	• Clear descriptions of methods and of how additional data collection was planned (key informant interviews in study 1, individual interviews after focus groups in study 2). • Comprehensive description of the research process in relation to the general model for service AR (study 4).
Confirmability	Exhibition of the linkage between data and conclusions and self-awareness about the researcher's sources of bias.	• Analysis both independently and jointly by me as an insider and my co-authors as outsiders using an insider-outsider approach (Breen, 2007; Pugh et al., 2000) (study 1, 2, and 4). • Full data event file available for readers (study 1: paper 2). • Joint reflection sessions in longitudinal studies for confirmation of preliminary interpretations (study 1 and 4). • Self-reflection included in the methodology chapter of the thesis. • Triangulation of methods and multiple data sources (study 1, 2, and 4).

Furthermore, AR, in opposition to other qualitative and case studies, does not aim to study a phenomenon naturalistically in the sense that the setting should be as undisturbed as possible by the study (but, like the rest of my research, it is naturalistic in the sense that it strives to remain true to the full social complexity of the phenomenon (Bryman and Bell, 2011)). Instead,

AR intentionally tries to affect – or "contaminate" – the setting. Therefore, the AR components need certain attention in some aspects of research quality (Elg et al., 2020; Herr and Anderson, 2005). As a complement to the considerations presented in table 3.2, further elaboration on aspects specific to AR is presented in section 3.7.2.

3.7 Reflections on ethics and research process

3.7.1 Ethical considerations

For qualitative research, ethical codes and recommendations generally include four areas of concern that the researcher needs to regard: informed consent, avoiding harm to participants, protecting participants' privacy, and avoiding deception (Bryman and Bell, 2011; Flick, 2009). These principles have been considered in all included studies as outlined in Table 3.3.

Table 3.3. *Ethical principles and how they have been considered in the included studies.*

Ethical principle	**Consideration in the included studies**
Informed consent	• Respondents (interviewees and participants in focus groups) have been informed before their participation (by e-mail and verbally just before interacting with the researcher(s)) about the purpose of the study, that participation is voluntary, that they can cancel their participation at any time, that audio recordings will be made, who will have access to the data (me, my co-authors, and in study 1 an additional researcher), and that the information they provide will be de-identified. • In the participatory elements of the AR projects, all participants in the groups involved in the studies (e.g., project and steering groups) were informed in writing about the AR approach and a presentation about the approach was given in initial meetings.
Avoiding harm to participants	• Quotes have been used with identifiers that do not directly reveal the identity of the individual respondent. • Data has been stored in approved solutions for electronic information.
Protecting participants privacy	• Respondents were informed that their participation was voluntary and that they can cancel their participation at any time. • No covert research methods have been used.
Avoiding deception of participants	• Openness about the research interest when collecting data by participation and observation. Cooperation with outsider researchers in the analysis of data, based on the stated purpose of the study, to ensure honesty and avoid biased results.

3.7.2 Reflections on the insider action research approach

In general, the ethical principles listed in Table 3.3 applies to AR too. For example, connected to harm avoidance, privacy, and non-deception, Walker and Haslett (2002) argue that the questions "Who will be affected?" and "How will they be affected?" shall be monitored throughout an AR project. Eikeland (2006) further emphasises the issue of how to draw a line (or not) between *we-the-researchers* (who are doing the studying), and *they-the-non-researchers* (who are studied), and Williamson and Prosser (2002) problematise the aspects of anonymity and informed consent in an evolving research project. Furthermore, I have

conducted research in my own organisation, which entails additional concerns about role duality, organisational politics, and contextual preunderstanding (Coghlan and Brannick, 2014).

Who are the action research study objects, and can they stay anonymous?

General research ethics are often concerned with the question of how to relate to others (the study objects, who are not part of the "we" who conducts research) but in AR, such a distinction should ideally not exist (Eikeland, 2006). However, in practice, a complete merging of practice and research is very hard to achieve, but Eikeland argues that creating conceptually (but not practically) separate communities of practice and inquiry can be a way to allow for knowledge creation with researchers and practitioners being at the same level (without a perception of anyone being superior to another). In my AR projects, I have tried to form groups where participants (practitioners and researchers) can be open about their assumptions and feelings, at the start often by being open about sensitive topics myself. I have also tried to articulate observations to the group (often as questions to allow the participants to respond and reflect) so that they should not feel that as a researcher, I am making observations or interpretations that are covert to them.

Full anonymity was hard to achieve in these small organisational settings, but to achieve a desired open climate, potentially controversial or sensitive answers have sometimes not been included in the papers, and the results have been described indirectly, without connecting results to a single respondent. In these cases, visualisations, and general descriptions, validated jointly by the participants, were important means for exhibiting the linkage between data and results. Triangulation by field notes and documentation (for example visualisations on whiteboards or Miro.com) was used to avoid missing important aspects in the data, which were not always recorded (since recording could have impaired the openness of participants). However, the exclusion of controversial answers inevitably implies a risk of diminishing the complexity of the issue at hand, since only general and agreed descriptions can be presented.

Furthermore, the AR approach inherently means that all methods or research activities are not known from the start but evolve during the study. Hence, the information that participants were provided to give their consent was incomplete. This concern was addressed by taking the time to educate the participants about the AR approach in general and the overarching aim of the studies, which guided later methodological development. In joint reflection sessions during the studies, the participants were reminded about the research approach and updated on preliminary interpretations and choices. Naturally, all participants were also informed before any recordings of meetings were started. All consented to being recorded. However, there is always a risk that participants feel pressed to accept recordings or forget about the recording when expressing their opinions, leading either to missed data or the risk of harm if quotes are used without caution.

Managing role duality

In terms of Herr and Andersson's (2005, chap. 2) continuum of the positionality of the researcher, I have been *an insider in collaboration with outsiders* throughout my doctoral studies. This approach has allowed unique access to data and thorough comprehension of the context (Coghlan and Brannick, 2014). However, it has also been a pragmatic choice, as

combining research with being a manager has been more feasible when the goals and interests in the two roles have been similar. Though, these double roles imply increased complexity.

Being both a physician and a manager on one hand, and a researcher on the other, I have had to handle conflicts related to *role duality* (Coghlan and Brannick, 2014; Morton, 1999). In my case, I have not experienced controversies with other persons related to this but obviously, my position and background may have influenced the willingness of participants to express some opinions. For example, a participant or interviewee may presume that I would not agree or feel less competent or familiar with a topic and, hence, censor his or her statements. Unsupervised group discussions during focus groups (study 1 and 2) and interviews conducted by another researcher (study 1) have been ways to mitigate this risk.

However, my role duality has also implied internal conflicts that have been matters for self-reflection and self-management of time, focus, and appearance. My strategies for handling the role duality have developed somewhat over time. Between the first and the second AR project (study 1 and study 4), I went from employing *dual roles* to employing *a dual role*. The difference may appear subtle but indicates a significant development and implies an important step towards more genuine AR. In study 1, both me my colleagues saw me primarily as a manager, who sometimes took on the role of a researcher, while in the last study, the roles were integrated. The adoption of a dual role as both project manager and researcher *in one* had noticeable practical implications. In study 1, I held practice-focused project meetings and then separate research-focused reflection sessions. In study 2, I merged practical and scientific issues of interest and openly discussed interpretations and theoretical perspectives with my practitioner colleagues throughout the study, to engage all members of the AR team in continuous joint exploration.

The development from *dual roles* to *a dual role* was not only the result of a pronounced ambition to conduct AR. At the beginning of the second AR project, I held no manager role, which allowed me to choose my AR role more freely. As Coghlan and Brannick (2014, p. 140) state: “if your sole job in your organisation is that of internal change consultant, then you are already a researcher in your own organisation. We see this as a single role with low potential for role confusion.” The combination of a manager and a researcher role, which I had in the first AR project, is more complex and is accompanied by a significantly higher risk for *role detachment* (Adler and Adler, 1987), meaning that you feel like an outsider in both roles. The separate joint reflection sessions in study 1 were useful to be clear about my present role, both for myself and for my peers in the project group.

In terms of eliminating the gap between *we-* (or *I-*) *the-researcher* and *they-the-non-researchers* (Eikeland, 2006), it was easier to achieve this relationship in the second AR project, than in the first. My manager role meant another *I* vs. *them* relationship, which affected the *researcher* vs. *researched* relationship, making it harder to fully eliminate. However, in both cases the organisation around the community of inquiry (the AR team or equivalent group) was also seen as the researched object, adding a dimension of *us researchers* in the AR team who are researching *others* (humans or phenomena).

Handling organisational politics

My dual role(s) as an insider action researcher also implies a need to manage a political landscape and relations with other persons within the organisation, with different power relationships (Coghlan and Brannick, 2014). Since I have conducted my research as part of my employment, I have been dependent on continued acceptance from my superior. A long-term agreement regarding my research activities without specification of the focus of my studies was important to ensure that my dual roles did not influence the results. In study 4, the assignment came from several heads of departments and concerned multiple departments and units, which implied a need to manage interdepartmental relations and cultures, and partly different agendas. To handle this aspect, the alignment with organisational goals and the packaging of the project as an organisational improvement project were important strategies (Roth et al., 2007). For example, some managers wanted to rush the project to produce organizational change but that urge had to be balanced with the need for thorough investigation of the problem and time for reflection. To satisfy both needs, the AR team initiated some concrete activities aimed at solving aspects of the problem (measurements and data management), while taking more time for reflection and investigation of another issue (organisation and balancing of top-down and bottom-up approaches).

Scarcity of time for reflection together with important (higher) management stakeholders involved in the projects were also recurring problems, as recognised by for example Morton (1999). Here, my strategy was to carefully prepare reflection sessions to bring people quickly up to speed, and to revisit subjects in repeated meetings with some preliminary interpretations prepared as a starting point.

Contextual preunderstanding

Another challenge connected to AR in your own organisation is to manage your preunderstanding. On the one hand, I have had knowledge of for example organisational jargon, taboo and politically correct phenomena, and formal and informal structures. This preunderstanding has helped me retrieve and interpret information. On the other hand, overconfidence in one's own knowledge about the organisation and established personal assumptions may govern actions and inferences, implying a risk of missed data, jumping to conclusions, or biased interpretations (Argyris, 2004; Coghlan and Brannick, 2014; Roth et al., 2007).

To mitigate this risk, my research studies have been complemented by the inclusion of the perspective of an outsider researcher (Breen, 2007; Pugh et al., 2000). In practice, the insider-outsider approach has meant that one or both of my supervisors have engaged in analysing the data that I collected (for example interview transcripts, recordings, research logbook, and documents). We have then compared our interpretations and preliminary findings in a joint analysis. In the AR studies, I have also involved other practitioners in the analysis.

Another important mitigation for this concern (and many other concerns connected to AR) is self-reflection. In the AR studies, I have applied self-reflection by continuous journaling in the form of repeated reflections on the process and my own role and understandings, connected to summaries of field notes (Coghlan and Brannick, 2014; Humphrey, 2007).

3.7.3 Development of the research strategy over time

From the start of my doctoral studies, I set out to study improvement processes and phenomena that occurred in my own managerial and organisational context, and the strategic choice to include elements of AR was made early. The ambition both to improve and inquire has then guided the research throughout the process. Here, I highlight two key aspects that have been subject to development: my research interest and my assumptions about management.

Research interest

First, my view on MIs has developed, which affected my research interest. In the first project, my initial aim was to describe how the MI VBHC could be applied to my context, and ideally show proof of its efficiency. However, this turned out to be more complex than I first (naïvely) imagined, and I came to understand that valuable improvements can be achieved without the implementation of an MI as a ready-made solution. Also, my research interest gradually moved to a somewhat higher level of abstraction. Taken together, I adopted a greater distance to the specific MIs and developed a view of MIs as transient packages of management principles rather than all-new and specific innovations. In terms of Habermas's (1972) works on knowledge interests, my development as researcher (and practitioner) can be described as a movement from a *technical* to a *practical* interest. This alteration in research interest is, in many ways, logical since I came from a medical background – at that time assuming a positivist worldview – and entered the field of management. The underlying paradigm for the *technical interests* of control and performativity is positivism and functionalism, while the *practical interests* in contextual complexity and human interaction is grounded in an interpretative paradigm (Cicmil, 2006). Thus, my pragmatism-inspired view as to what type of knowledge that is useful to achieve practical improvements has changed as I have come to widen my understanding of the phenomena that I study. The change can be noticed in the research strategy, as later studies have started more with an ambition to achieve improvements rather than to use or study specific MIs.

Assumptions about management

In my manager role, before and early in my research journey, I sought to create a *system* that would lead to the desired operational outcomes, or at least to implement better tools for the management of operations and employees, which demanded less direct management. That is, I desired solutions (such as MIs) that made it unnecessary to personally tell people what to do or how to do it. I appreciated the rationale connected to VBHC, that if professionals were fed with up-to-date data on relevant outcomes for their patients in relation to other units or doctors, their professional competitive instincts should trigger them to improve their work. This would allow for professional freedom instead of demanding compliance to strict guidelines, without the creation of a "let go" atmosphere and was my initial rationale for study 1.

In study 2, I started from the framework of value configurations as a model for how to organise care more efficiently. During the study, I came to see the complexity of applying archetypal configurations, since standardisation and customisation were not as separable in practice as in theory. Yet, I came to appreciate the value configurations as inspiration for organising and managing care. From a broader perspective, I developed a view of management as more of a craft than engineering. In this view, MIs are useful sources of inspiration and can be used as strategic management tools. However, management will always be about balancing different

needs and demands, of operations, politics, and humans, which cannot be done exclusively by engineering a refined management system.

This view impacts study 4, where instead of testing an MI, the starting point was to manage and improve a practical situation where a multitude of smaller groups and individuals involved in digitalisation operated without coordination, and the potential for increased efficiency was not achieved. My approach was to search for several theoretical concepts to guide the formation of a locally adapted organisation which could continuously manage these issues.

3.7.4 Methodological limitations

As mentioned, conducting insider AR entails the risk of distortions due to preunderstandings, role duality issues and the impossibility of controlled and predefined methods for data collection. These concerns have been mitigated but are still weaknesses that need to be considered. In addition to these concerns, the research included in this thesis is conducted in a single setting and the empirical material is limited in terms of number of respondents. In-depth understanding is promoted but the generality of the results can be questioned. Also, relatively few researchers have been involved in data collection and analysis, which can be seen as a weakness.

4. SUMMARY OF APPENDED PAPERS

This chapter summarises the five appended papers in this doctoral thesis, in terms of study design, results, and key contributions. For each paper, its function in the thesis is also briefly outlined. Further analysis of the contributions and meta-learnings of the papers is presented in chapter 5.

4.1 Paper 1: A value-based taxonomy of improvement approaches in healthcare

The first appended paper builds on a case study focused on how organisations handle parallel improvement approaches (which can be equated to MIs) that aim to increase value creation (which in the context of this thesis can be equated to quality improvements). Perceptions of the concept of value were investigated in interviews with managers and employees within the Department of Psychotic Disorders at the Sahlgrenska University Hospital. A theory-based taxonomy was then developed, which was presented to key informants for feedback and adjustments.

Three thematically distinct views of what constitutes value in the care of psychotic disorders were identified, correlating to categories developed by Gummerus (2013): "value as unique experiences", "value as goal fulfilment", and "value as effective and efficient care processes". The first view was more common among care professionals while the two latter views were mostly found among managers and an external consultant. The taxonomy was developed based on these results and the organisational targets of three contemporary improvement approaches (lean, patient-centred care (PCC), and value-based healthcare (VBHC)) were theoretically analysed in relation to the taxonomy. The taxonomy included the dimensions of "view on value" (as processes vs. outcomes) and "organisational focus" (leaning towards the logic of professionalism or managerialism) and was aimed to help healthcare managers understand and relate improvement approaches. Value as outcomes relates to the concept of technical quality and value as processes to functional quality (Grönroos, 1990). Hence, value as outcomes refer to results such as survival rates and quality of life, while value as processes includes the aspect of resource efficiency and, for example, the elimination of waiting times. The key informant interviews confirmed the relevance of the taxonomy, and the view that improvement approaches can be combined in parallel or at different hierarchical levels was also supported.

Key contributions

- Value can be seen as outcomes and/or processes. Care professionals tend to focus more solely on value as outcomes, whereas managers acknowledge both views.
- In practice, improvement approaches (as examples of MIs) often appear in parallel and need to be combined and merged into a local management model (i.e., a set of managerial practices).
- The taxonomy makes important dimensions of improvement approaches (i.e., MIs) explicit, which can promote an understanding of the concepts and guide managers to combine improvement approaches into a coherent management model, to improve value creation (i.e., quality).

Function in the thesis

Paper 1 describes parallelism of MIs as an important contextual characteristic and investigates how this parallelism can be managed by relating MIs to underlying logics.

4.2 Paper 2: Value-based healthcare translated: a complementary view of implementation

Paper 2 investigates the process of realising an MI in a practical context. Its empirical base is a two-year AR-inspired case study of a project aimed to implement VBHC in the Department of Psychotic Disorders at the Sahlgrenska University Hospital.

Two perspectives on the realisation of theoretical ideas are related to each other: Implementation and translation. The consolidated framework for implementation research (CFIR) is used to represent the prevailing view of implementation of innovations. Challenging this view, especially for more complex innovations like MIs, the view of contextualization as a process of *translation* is promoted. The process and results of the longitudinal case are described and analysed in the light of implementation and translation to identify differences in interpretations. Generally, the case illustrated how the interpretive viability and pragmatic ambiguity of the VBHC concept allowed for the original concept to be heavily modified in the process of contextualization, implying several translations at different hierarchical levels. Three aspects were identified, where translation science provides other and more fruitful interpretations and, hence, can inform CFIR. First, the strength of evidence may not be as important for MIs as for medico-technical innovations. That is, the ability of an MI to enthuse recipients (organisations and their members) and create a hope of a better future is more important than scientific studies proving the effectiveness of the MI. Second, the aspect of adaptability can be given more emphasis to show room for translation, which is essential to make use of the MI to become useful. Finally, it is suggested that the process of implementing MIs should preferably not be executed by predefined plans, but iteratively translated in an emergent process to adapt both the MI and the context.

Key contributions

- MIs are more complex than medico-technical innovations since they are more ambiguous and open to different interpretations. Hence, for the practical realisation of MIs, translation is a more fruitful approach than implementation.

- Three aspects are suggested as to how translation science can inform CFIR:
    - strength of evidence is not as important for MIs as for medico-technical innovations
    - adaptability could be more emphasised as a success factor for MIs, as it facilitates contextualization
    - Implementation is not best executed by use of/in line with predefined plans or schemes

- The paper provides a hands-on example of a contextualization process.

Function in the thesis

Paper 2 shows how an MI, when brought into a local setting is *translated* in the process of contextualization. That is, it points to the need to adapt an MI to a complex context, rather than trying to achieve an instrumental and high-fidelity implementation.

4.3 Paper 3: Value configurations for balancing standardisation and customisation in chronic care: a qualitative study

The paper investigates manifestations (i.e., practical effects and consequences) and management of the competing demands of standardisation and customisation (which can be seen as logics in relation to the conceptual framework of this thesis) in a case of care for chronic mental conditions. Data from workshops, interviews, and a document analysis constitute the empirical base, which is used to identify and map activities corresponding to different demands and *value configurations*.

Demands for standardisation and customisation were acknowledged both at a regulatory and operational level. Managers perceived the two demands as harder to combine due to the pressure of scarce resources and demands for improved resource efficiency. The balancing of standardisation and customisation was in practice delegated to care professionals and interprofessional teams, rather than being managed systematically. When introduced to the value configurations framework, the respondents easily recognised all included configurations – chains, shops, networks – in their care operations. Selecting what demands to obey or configurations to use was not seen as possible. Instead, parallelism of demands was seen as inevitable in healthcare. Consequently, separating different configurations organisationally to improve resource efficiency was not seen as feasible in this case. Yet, the framework was seen as useful for balancing demands for standardisation and customisation. That is, sometimes care activities can be planned as a standardised chain, but the development is unpredictable and multifaceted, which implies a need to quickly move to a shop configuration to solve unique problems and to involve networked actors to provide support to the patient. However, while separation of types of care was not seen as possible, explication of the value configurations was an approach that could help managers think about and develop their care operations.

Key contributions

- Demands connected to the logics of standardisation and customisation permeate healthcare and need to be balanced and managed parallelly.
- The three MIs included in the value configurations framework (i.e., chains, shops, and networks) are applicable in practical healthcare management if applied at a defined level of abstraction, preferably at the first and second line of management.
- Organisational separation of value configurations is contested. Instead, parallelism of value configurations is suggested as fruitful for improvement work.

Function in the thesis

Paper 3 shows how limitation to one MI is sometimes not possible, but that several MIs can be combined. The matching of the MIs to the context displays how the process of contextualization can include translation and adaptation.

4.4 Paper 4: From "Invented here" to "Use it everywhere!": A learning health system from bottom and/or top?

Based on an AR study initially aimed to improve the quality and efficiency of care, paper 4 investigates how the MI *learning health systems* (LHS) can be realised in an existing care organisation. The context of the study is the five cooperating psychiatric departments within the Sahlgrenska University Hospital.

The AR process started by identifying issues and needs in the study setting, which were analysed theoretically to form a model based on LHS principles that guided the continued process. First, activities were initiated to meet technical needs for an LHS and, then, organisational needs were addressed. In practice, many *locally invented* innovations and modus operandi worked well but were not scaled up to be *used everywhere applicable*. At the second line of management, this was seen as an important problem and two areas of development was focused on: the fostering of a coherent culture and structures for prioritisations of innovation development and implementation. During the study, a controversy of top-down versus bottom-up development was encountered, which in the context of this thesis can be seen as a dyad of conflicting logics. The rationale for a top-down approach was based on traditional management principles implying that hierarchical pressure is needed for first-line managers and professionals to adopt new ways of working. In this view, centralised prioritisations and decisions were necessary to spread innovations broadly and achieve economies of scale. On the other hand, the rationale for bottom-up was rooted in quality management (QM) principles of learning or improvement cycles close to the operational level, providing sustainable change by incremental improvements driven by accessible data and engaged employees. Finally, an organisational structure was developed aimed at balancing the top-down and the bottom-up approaches in the continued efforts to realise an LHS.

Key contributions

- Translation is suggested as a fruitful approach for attempts to realise the LHS concept.
- Designing the translation as an AR project is proposed as advantageous both for studies and contextualizations of LHS.
- The parallel but conflicting logics of top-down and bottom-up development are both integrated within the LHS concept and need to be balanced in the process of contextualization.

Function in the thesis

Paper 4 illustrates how MIs can be brought in to help solve a practical issue and gives a practical example of how a contextualization process can occur.

4.5 Paper 5: Networks for healthcare delivery: A systematic literature review

The last appended paper is a systematic review of the literature on network configurations in healthcare. Starting from the value configurations framework and focusing on the network configuration, a literature search was conducted, as described in section 3.5.3. Abstracts were

then screened to include journal articles and conference proceedings concerning organisational networks in healthcare settings (or including healthcare systems as one part). The included articles did not need to refer to the value configurations framework directly but had to be about organisational networks, as opposed to IT networks or networks on a microsystem level. Eighty articles were included in the review and were analysed descriptively, thematically, and bibliometrically. The described networks showed a broad diversity in terms of scope and design. The most common care contexts were psychiatry, care for elderly, long-term care, and applications to entire healthcare systems providing care for multiple conditions. Thus, common denominators for the contexts are that care includes several actors within and outside of the provider organisation, and that care is needed over extended periods of time. Three clusters of articles were identified, reflecting different approaches to the use of networks: *efficiency-enhancing cooperation*, *efficiency-enhancing integration*, and *involvement for cocreation.* The first two clusters were similar but differed in the degree of integration between the actors involved, which is an aspect of networks that has also been connected to the success of networked organisation in earlier literature. The third cluster stood out with an approach that more acknowledged the micro-level interactions between patients, families, and other actors within the network to cocreate care. Some articles in this cluster also identified that the prospects of cocreation was dependent on contextual conditions, such as different logics among different actors and technological complexities connected to information systems. Other scholars have also emphasised the importance of micro-level interactions for networks of only organisational actors to explain the success (or not) of network configurations. Hence, the article suggests that the micro-level interactions and the macro-level designs of networks could be more integrated in future studies.

Key contributions

- Networks are mainly used in healthcare settings characterised by complexity and/or chronicity.
- Three clusters can be identified in the literature on networks in healthcare, corresponding to different approaches to the use of the network configuration: *efficiency-enhancing cooperation*, *efficiency-enhancing integration*, and *involvement for cocreation.*
- Network configurations can take on many forms in practice and scholars are encouraged to provide ample descriptions of studied networks, preferably relating to established taxonomies or classifications, to increase the conceptual clarity and allow meta-learnings.

Function in the thesis

Paper 5 shows that network configurations are often found in complex care contexts, such as mental health care. At a higher level of abstraction, it shows that one concept can be interpreted and contextualized into quite different forms in practice, illustrating the ambiguity that is connected to MIs. The paper also indicates the importance of interindividual interactions within the context and contextual characteristics, such as logics, for the utility (or not) of the MI.

5. Discussion

The purpose of this thesis is to explore how MIs can be understood and used to achieve improvements and handle complexity in healthcare from a meso-level management perspective. In chapter 2, three theoretical pillars were presented – complexity science, QM, and MIs – and key concepts were included in a conceptual framework outlining how complexity pressures healthcare managers and how MIs can be seen both as components of the complexity and as tools that can be contextualized and turned into new management practices, ultimately meant to achieve improved quality and efficiency. Chapter 4 summarised the findings of the appended papers and these findings are in this chapter combined and discussed in relation to the research questions, to develop a conceptual model. Last, I highlight the theoretical and practical implications of the thesis.

First, returning to the theoretical framework developed in chapter 2, papers 1 and 3 relate to how parallel management innovations can be handled and taken into a local setting but do not describe realisations of the MIs in practice, even though the results have implications for continued contextualization. In papers 2 and 4, practical contextualizations of MIs are described, while paper 5 gives an overview of what the results of different contextualizations may look like in terms of types of management practices. From these different perspectives, the papers all add to the combined understanding of the process of how MIs can be used to pursue improvements, as shown in Figure 5.1.

5.1 RQ 1: *How can different MIs be combined in management practice?*

The taxonomy presented in paper 1 is an explicit attempt to provide guidance to managers on how to understand MIs and relate them to each other and to different actors within the healthcare system. Relations to different coexisting *logics* are identified as a useful entrance into disentangling the interrelations between MIs and actors (as different elements of a complex adaptive system (CAS)). That is, managers can try to understand the underlying assumptions of an MI for how it aims to bring about improvements and compare those assumptions with assumptions present among relevant groups and individuals in their context. In paper 3, combinations of MIs are exemplified more hands-on. The value configurations framework (Stabell and Fjeldstad, 1998) can be seen as containing three MIs (the three different value configurations) and the original suggestion is that increased efficiency can be achieved if these are organisationally separated (Christensen et al., 2009). However, in paper 3 it is found that such separation is not feasible. If the value configurations framework would have been assessed as one fixed model or three mutually exclusive MIs, it could have been rejected. But as shown in paper 3, if the ambiguity of the MIs (Giroux, 2006) is exploited while translating the MIs, a local model can be developed, which can still serve as a useful inspiration for improvements. Also, in this case, logics (in section 2.1.1 of this thesis logics defined as *dominant ways of thinking about the roles, goals, and practices connected to how an organisation achieves its aims*) emerge as important. In paper 3, the logics of standardisation and customisation are shown to be connected to different MIs and also to different actors. However, the connections to actors are not clear-cut and one actor can be seen to rely on several logics (for example, first-line managers in paper 3 expressed understanding for both standardisation and customisation).

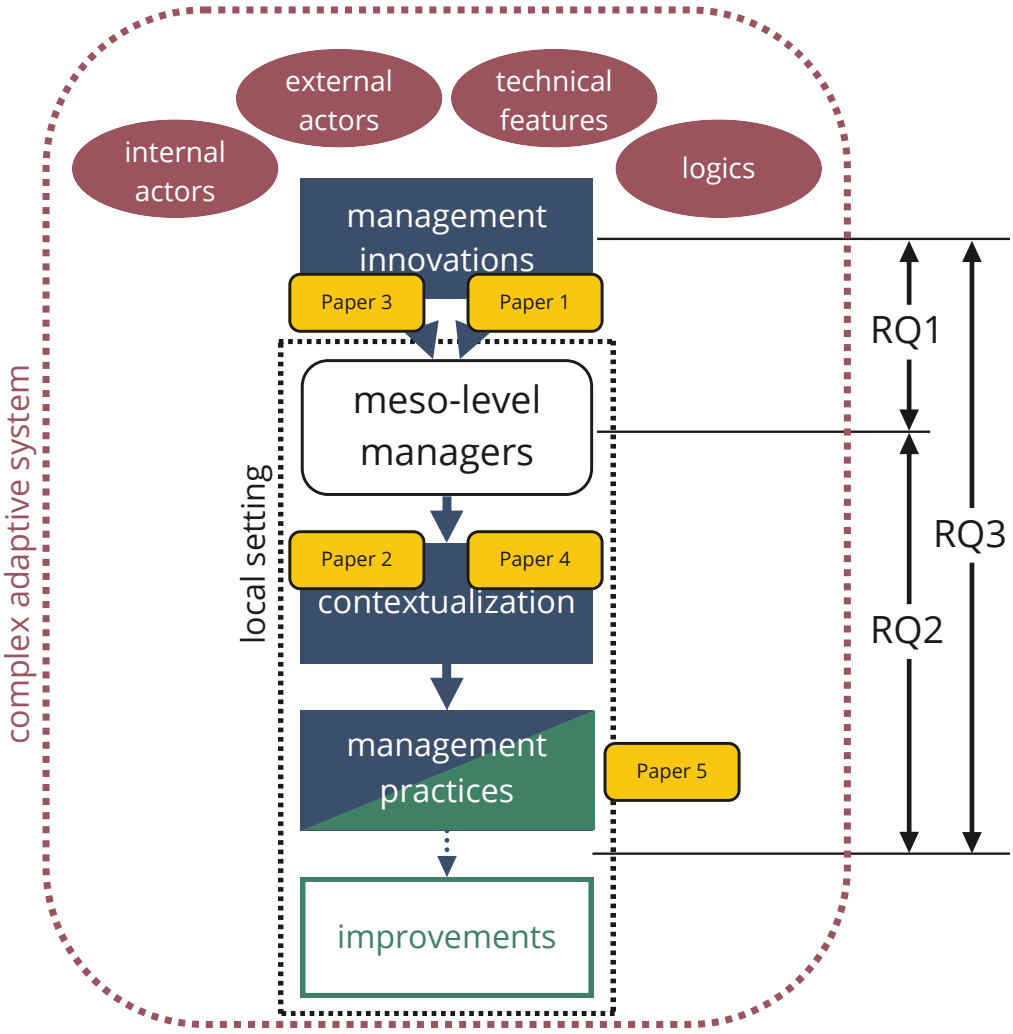

Figure 5.1. *Positioning of the five appended papers in relation to the conceptual framework. While all papers add to the understanding of the overall issue of how MIs can be adopted and contextualized to pursue improvements in healthcare, paper 1 and 3 is more concerned with the phenomenon of MIs and the complex context that they exist within, paper 2 and 4 with the process of contextualization, and paper 5 with the resulting management practices.*

Thus, the results indicate that MIs can generally be seen to build on one or several logics and when two MIs build on the same logic, combining them is principally relatively uncomplicated. In these cases, management practices connected to different MIs can be mutually supportive. For example, as described in paper 1, patient-centred care (PCC) can be seen to adopt a similar view on value as a driver of improvements as value-based healthcare (VBHC), which allows for a fruitful combination if this similarity is emphasised, even though VBHC can be seen to relate more to the logic of managerialism and PCC to professionalism. However, the logics that are relevant to consider for a manager vary over time and intrinsic interrelations between different components of a CAS make it inadequate to suggest a set of fixed concepts or phenomena to relate to. Rather, it is the effort to understand and integrate underlying logics, rationales, and relations to other system components that are key (Wikström and Dellve, 2009).

Furthermore, MIs are often ambiguous concepts (Benders and van Veen, 2001; Giroux, 2006), which is demonstrated in for example the adaptation of VBHC and learning health systems (LHSs), and the many different applications of organisational networks. In paper 4, LHSs are

found to relate to two competing logics of how to drive improvements: bottom-up and top-down. From a meso-level management perspective, the LHS concept is ambiguous since these two competing logics are both advocated. That is, spread of efficient innovations (top-down) and incremental development of practices based on data on local processes and outcomes (bottom-up) are both desired (Braithwaite et al., 2020; Smith et al., 2014). In paper 2, parts of VBHC are removed or altered during the process of contextualization without losing the VBHC label, which illustrates how ambiguity or "fuzziness" of an MI can be successfully exploited. For example, if the framing of what constitutes "value" in VBHC is matched with the view in PCC, the two MIs can be mutually supportive, as indicated in paper 1.

These examples point to two answers to RQ 1. First, managers are advised to *see the logic behind the label*. By identifying the underlying logics of MIs, managers can relate different MIs to each other to see common denominators that make the MIs possible (or not) to combine. Identifying underlying logics can also help managers relate different MIs to other components of their contexts, to improve the understanding of how MIs can be used in a system. Second, the *ambiguity* that is often connected to MIs (Benders and van Veen, 2001; Giroux, 2006) *can be used to emphasise the aspects of an MI that "fits" the organisation or the desired change* when matching new MIs with elements of previous or existing MIs (Eriksson et al., 2021; Lin et al., 2017). That is, when a new MI builds on more than one logic, a manager can stress management practices that build on the same logics as the MIs to be combined and downplay conflicting management practices.

5.2 RQ 2: *How can meso-level managers handle complexity in the pursuit of improvements?*

As indicated in the theoretical background chapter, the complexity of healthcare can be a challenge for managers exposed to conflicting logics and actors with discordant agendas. Earlier literature has suggested that the complexity of healthcare is one explanation for the poor outcomes of improvement initiatives based on QM, such as teamwork (Zabada et al., 1998), PDSA circles (Rohrbasser et al., 2018; Taylor et al., 2014), and lean (Mazzocato et al., 2014). Complexity as a hinder to development and improvement is also recognised in the appended papers of this thesis. For example, conflicting logics and intricately networked relations between different stakeholders complicate the use of the value configurations framework (paper 3) and LHS (paper 4). Yet, improvements must be pursued in some way.

Within QM, appreciation for a system is advocated as a starting point to pursue improvements (Deming, 1994) but complexity science refutes the thought that a system could be fully appreciated or predicted (Plsek and Greenhalgh, 2001; Sterman, 2006). The different views may partly be due to different definitions of a system, where QM adopts a somewhat more limited view of systems as constituted only by actors sharing a common aim (Deming, 1994), while complexity science acknowledges CASs, implying that systems are open and in constant emergent development (Braithwaite et al., 2017a). This difference may cause frustration among managers who try to comprehend their complex systems in full or apply QM tools, which build on a linear-rational systems view, to complex contexts (Storkholm, 2018). However, these views can be seen as complementary to allow *appreciation for a CAS*. Such a view would imply that managers can achieve some degree of comprehension of the system, including major components (e.g., actors, technical features, and underlying logics) while simultaneously

acknowledging the elusive properties of a CAS. These properties entail that organisational development is seen to be outside of direct managerial control (Rouse, 2008), but complexity science still provides advice for some management practices.

First, managers must *accept their position of having limited control*. As Richardson (2008) argues, "flip-flopping is OK" and managers should "expect to be wrong" (p. 25). That is, predefined and long-term plans are not suitable. Instead, decisions should be made incrementally and with an open mind. In the empirical material of this thesis, the issue of uncontrollability is illustrated in paper 4 where team members with a management background intuitively wanted to control development top-down (even though the background to the study was that the top-down desire to spread efficient digital innovations had failed), but members propagating the LHS concept and consideration of complexity science suggested reliance on emergent development. In that case, a middle ground was negotiated where elements from both perspectives could be combined in the formation of an organisational structure but also in the views and approaches of the members of the action research (AR) team and the heads of departments. Acceptance for the view that emergent development (without predefined plans and detailed goals) is necessary was achieved. However, the heads of departments did not see it as possible or desirable to quickly switch to complete reliance on emergent development. Instead, efforts were made to develop an infrastructure to support bottom-up development aimed at improving selected aspects of care (aspects that should be measured and where feedback should be provided to managers and professionals). Also, structures to control and prioritise a fewer number of larger development projects were put in place, so as not to lose the opportunity for economies of scale. Paper 2 also indicates the inappropriateness of predefined plans for implementation when introducing VBHC. In that case, plans were made by hierarchically superior units but needed to be changed and adapted repeatedly. Understanding underlying logics (as described in section 5.1) can also be a fruitful approach to pursuing improvements and handling complexity *not* related to MIs. As described in paper 3, integration of competing logics (standardisation and customisation in the paper) was recognised as necessary to maintain good care and pursue improvements, even in the current situation where no MI was applied. The paper shows that in practice, the integration of logics can imply that managers communicate openly regarding conflicting goals that come from different logics and involve different internal actors in joint work to find balanced ways to handle current complexity.

Second, as a further consequence of the uncontrollability of CASs, change should be *attracted* rather than controlled (Bergman et al., 2015; Plsek and Wilson, 2001) and managers have been advised to foster improvements by nurturing and supporting knowledge development rather than to design processes (Matthews and Thomas, 2007). Hence, managers must understand what attracts different actors and stakeholders within the system (i.e., their rationales or logics) and use attractors to influence their activities, to impact the development of the system. Using attractors to influence development is also closely connected to intrinsic motivation (Nantha, 2013) which, in a QM context is promoted by for example Bergman et al. (2015). This approach can be exemplified by study 1 (papers 1 and 2), where the current views on the value concept in the setting were explored as an initial step before implementing VBHC, and the results were used to frame VBHC in an attractive way to enthuse organisation members. Just telling people what to do was not considered feasible. Another example is found in paper 4, which outlines

that the rationale for how the LHS concept can drive improvements is via an automated and easily accessed reporting of relevant data to professionals, to foster bottom-up learning and development. That is, a system to *attract* continuous improvements.

Third, and connected to the example from paper 4, the use of *performance data to study variation can be seen to have a different meaning in a CAS*. QM suggests that improvements should be sought systematically by achieving a state of statistical control (a stable state) and studying variation (Deming, 1994). In these terms, a CAS can never be seen to be in a stable state control, where special cause variation is eliminated (Braithwaite et al., 2017a). Instead, strengthening the capacity of clinicians, providing them with rapidly accessible performance data and only a minimum of specifications for what is to be achieved is advised to bring about improvements (Plsek and Wilson, 2001), which is also the idea in an LHS, as applied in paper 4. Thus, even though control of variation can be questioned as a practice to manage a system, the possibility to study the variation of performance data (processes and outcomes) for delimited processes may not necessarily be excluded. The point is that in a CAS, much more reliance should be put on clinicians to achieve the best possible outcomes by constant adjustments and adaptations to the current conditions (Braithwaite et al., 2015). This implies a slightly different role for the study of variation than that proposed by for example Deming (1994), but not a less important one. Papers 2 and 4, as well as earlier research, indicate the potential of providing clinicians with rapidly updated and visualised performance data (Andersen et al., 2014; Dixon-Woods et al., 2014; Gremyr et al., 2019b), which can be seen as a way to attract improvements. The approach of relying more on actors within the system for decision-making is also in line with the notion of distributed leadership, as advocated by complexity science scholars (Braithwaite et al., 2017a; Greenfield et al., 2009), and teamwork, as a central principle of QM (Dean and Bowen, 1994). In paper 5, even though various types of networks are described, most contexts are of complex care with several actors involved and mental health care is the most common context. This finding can indicate that managers in complex contexts acknowledge a need to involve multiple actors in joint work, which resonates with the argument that network configurations are especially suitable for complex care (Fjeldstad et al., 2019).

5.3 RQ 3: *How can MIs be used to improve quality and efficiency of care in a complex context?*

The answer to RQ 3 combines the learnings from the first two RQs. MIs constitute a part of the complexity of healthcare, especially if imposed (as was the case with lean and VBHC in study 1, even though VBHC could yet be translated into a useful concept). Hence, improvements in a CAS can be sought independently from MIs, handling MIs only as disturbing system components (Clark, 2004; Staw and Epstein, 2000; Walshe, 2009). My studies have not focused on this view of Mis, but in paper 1, the respondents tend to see lean as merely a set of tools that can or cannot be used, thus reducing the MI to something that can more easily be overlooked. However, MIs can also provide new and useful approaches for the pursuit of improvements, as do the inspiration of value configurations for process improvement in paper 3 and the concept of LHS which was brought in in study 4. That is, MIs can be actively combined and contextualized as tools and building blocks in the pursuit of improvements, which has been illustrated in different ways in all the appended papers.

Integrating the suggestions from the last two sections, first, the process of contextualization (Örtenblad et al., 2015; Røvik, 2008) must be acknowledged as crucial, including an active *translation* of the MI and measured transformation of practices (Ansari et al., 2010). This process cannot be planned in advance but will emerge, demanding active and flexible management actions that pragmatically exploit the ambiguity of MIs (Giroux, 2006). The diverse interpretations and applications of organisational networks identified in paper 5 exemplify the various results that the application of an MI can produce. Second, as an important first step in (or before) the contextualization, I propose that meso-level managers need to *acquire a (relative) appreciation of their surrounding system as a CAS*. To develop such an appreciation, I suggest that the recognition of underlying and interrelated *logics* can be a fruitful starting point. Third, using the appreciation of the CAS and the underlying logics of its components, the change that is to take place during and after the process of contextualization needs to be *attracted*. In this endeavour, different management practices can be used depending on the unique context and situation. For example, purposely selected performance data (and its variation) can be presented to employees and managers as feedback to drive development in the desired direction, and distributed leadership (Fitzgerald et al., 2013) can be applied to engage organisation members and make use of the collective in the organisation. Knowledge of psychology (Bergman et al., 2015; Deming, 1994) is also essential to attract change and can be furthered by an understanding of different actors' (or individuals') underlying logics.

5.4 Developing a model for how meso-level managers can use MIs to pursue improvements

Returning to the conceptual framework presented in section 2.4, the appended papers support the view that managers at meso-level have good opportunities to affect the management practices implemented or altered as a result of the adoption of an MI by actively exploiting the possibilities of the contextualization process (Bort, 2015; Røvik, 2016). The papers also support the view of healthcare as a CAS, characterised by many parallel and interrelated components, such as internal and external actors, and technical features (Braithwaite et al., 2017a; Plsek and Greenhalgh, 2001). In Figure 5.2, a model is presented based on the conceptual framework but with some important differences based on the findings of the appended papers.

First, even if the view of healthcare as a CAS is adopted, appreciation for the system need not be refuted. As indicated by the horizontal arrow in the model, meso-level managers should strive for a relative *appreciation for the CAS* surrounding them and their organisations.

Second, in the empirical material, *logics* emerge as a central type of system component. As other components of a CAS, logics are interrelated to each other and to other types of components. However, their fundamentality – in the sense that they relate to views of roles, goals, and practices that an organisation can use to achieve its aims – both make logics especially important and allow them to serve as connectors forming a frame of reference for managers seeking to understand MIs. That is, logics can be connected to most, if not all, other system components and can therefore be a useful starting point for understanding and use of MIs. Broadening the perspective, logics in the meaning applied in this thesis can be used by managers to appreciate the surrounding complexity, which is needed to pursue improvements in general.

Third, MIs can be presented and perceived as central and comprehensive solutions on how to bring about improvements. However, *applying an MI fully and solely to an organisation is rarely feasible*. Instead, the findings suggest that MIs can be seen as mouldable and combinable concepts that can be useful for managers together with other system components and sources of inspiration, indicated in Figure 5.2 by MIs now being illustrated as one system component equal to others.

Last, in the process of contextualization, *translation* is emphasised as an advantageous approach over implementation. The studies show that pragmatic use of the ambiguity that is connected to MIs can be more useful than more instrumental implementation approaches. The term translation also signals that the people engaged in the contextualization need to actively interpret the generally described MI to find a fitting level of transformation of both the concept and the context.

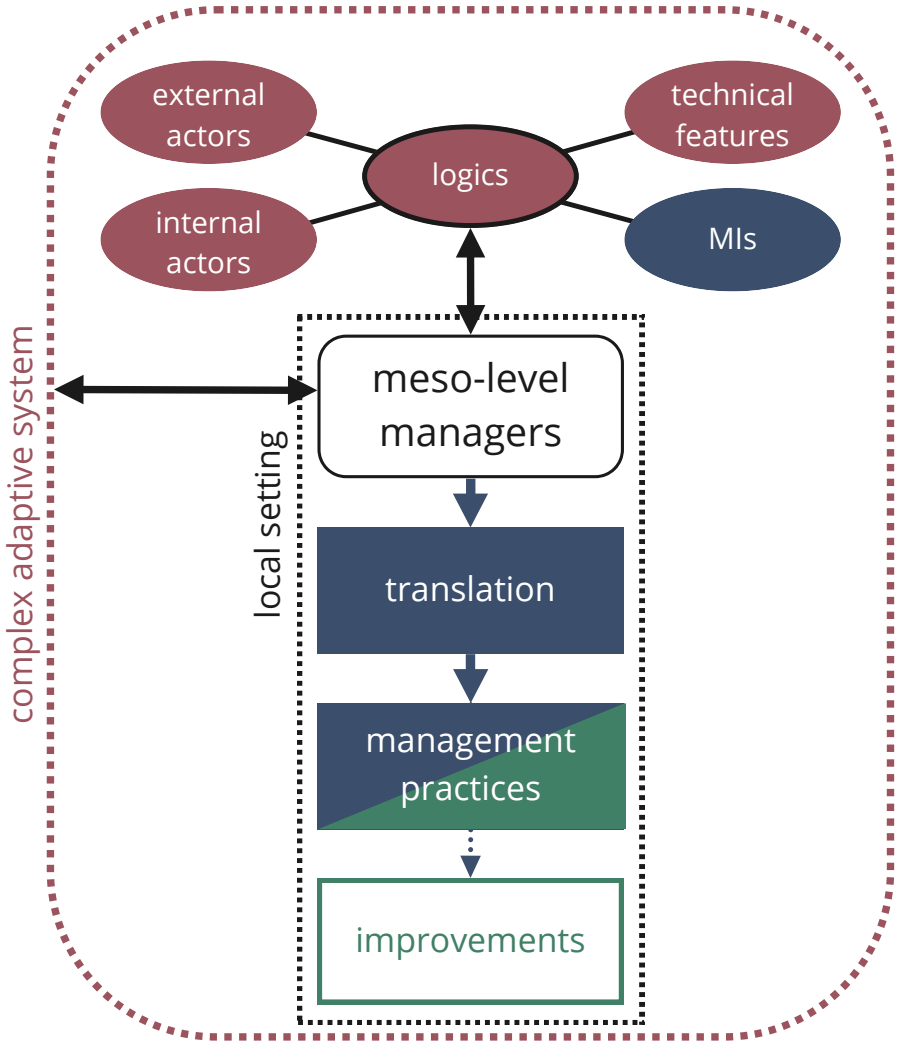

Figure 5.2. *A model for how MIs can be understood and used to pursue improvements in healthcare from a meso-level management perspective. Healthcare viewed as a CAS cannot be fully understood or appreciated, but a relative appreciation of the main components and their relations can be sought as a starting point for the deliberate contextualization of MIs. Logics are seen as central to relate different components of the CAS of healthcare to each other. MIs can be seen as one system component among others, that managers need to handle and can use to pursue improvements. In the contextualization of MIs, a translation approach is advocated.*

5.5 Theoretical implications

The findings in this thesis aid the integration of several theoretical fields concerned with the pursuit of improvements in healthcare. The purpose of the thesis is to explore how MIs can be understood and used to achieve improvements and handle complexity in healthcare from a meso-level management perspective and Figure 5.2 integrates previous knowledge and empirical findings into a model that can be related to both practical and theoretical issues, as discussed above. As indicated in Figure 5.3, the theoretical implications can be related to all the three theoretical pillars of this thesis and concern 1) integration of QM and complexity science, 2) parallelism of MIs, 3) the view of contextualization of MIs as a process of translation, rather than of implementation, and 4) furthering of a more holistic comprehension of the pursuit of improvements in healthcare.

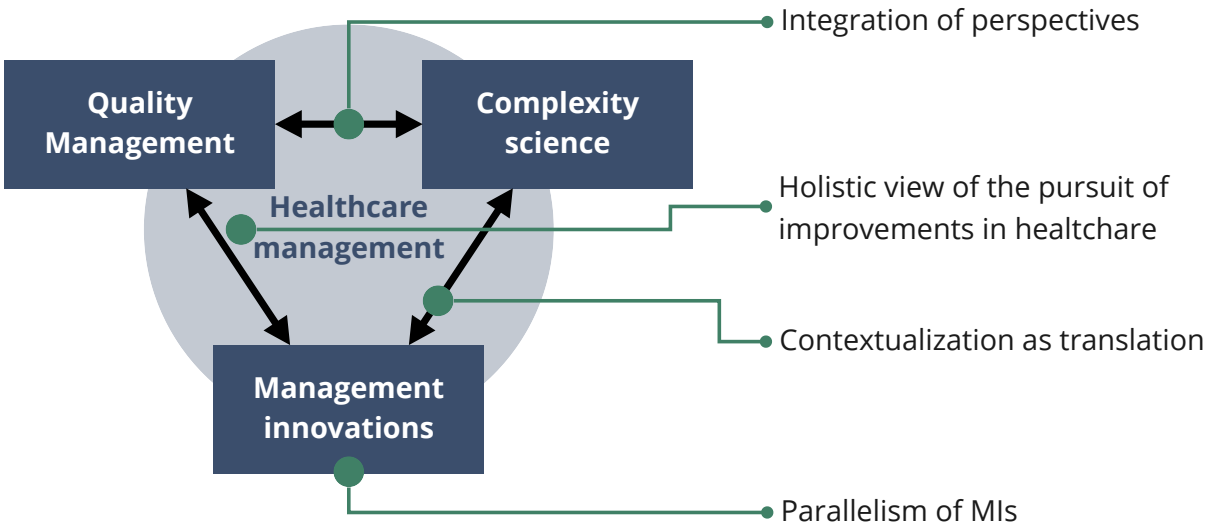

Figure 5.3. *Theoretical implications (green) in relation to the three theoretical pillars (blue) as first presented in Figure 2.1.*

First, the thesis contributes by integrating complexity science and QM, which has implications for both the theoretical fields. The view of healthcare as a CAS is supported by the combined findings of papers 1-4 where development is shown to be dependent on numerous logics and actors in a system that is difficult to grasp, measure, and/or control. This view contrasts the view of Deming (1994) who sees a system as "a network of interdependent components that work together to try to accomplish the aim of the system" (p. 95). Similar to the traditional management view of an organisation as a well-oiled machine (Plsek and Wilson, 2001), Deming used the parable of a well-conducted orchestra. Furthermore, Deming argued that "the greater the interdependence between components, the greater will be the need for communication and cooperation between them. Also, the greater will be the need for overall management" (p. 96, 1994). The need for communication and cooperation fits well with the support for networks in complexity theory. However, the conclusion that more overall management is needed contrasts with the notion of emergence and self-organisation, which can be seen to refute direct managerial control (Plsek and Wilson, 2001; Richardson, 2008; Rouse, 2008). However, the perspectives need not be impossible to combine. For complexity science,

this implicates that efforts to acquire a relative comprehension of a CAS need not be in vain, even though a CAS cannot be fully grasped or predicted. For QM the implications relate to all four domains of the notion of profound knowledge (Deming, 1994):

- *Appreciation for a system* could integrate the concept of CASs. Adopting the narrow definition of a system as described by Deming (1994), healthcare should not be seen as a system but a complex collection of separate but entangled processes, professionals, activities, and units (Mintzberg, 2012). Appreciating the system as a CAS implies that development should be seen as emergent and a result of self-organisation, intrinsic feedback-loops, and transient and networked relations, which cannot be directly managed but influenced (Braithwaite et al., 2017a). Furthermore, *one common aim* may not necessarily be a requisite to be a system. Instead, the aims and goals can be both fuzzy and multifaceted and differ between different actors.

- *Theory of knowledge* emphasises the importance of theories about causality for predictions of outcomes of processes and improvement efforts (for example through PDSA circles (Taylor et al., 2014)). Complexity science propels the view that neither output nor development can be predicted in a CAS, which can be seen as contraposition. However, by integrating the views it can be suggested that theories of causal relationships can still be useful, but managers should "expect to be wrong" (Richardson, 2008, p. 25) and explications of such theories need to be iteratively modified (Reed et al., 2014). That is, even though the basic assumption in QM is still valid, a more relativistic view of knowledge can be advised.

- *Knowledge about variation* can be a powerful approach to improvement, especially as more and more data are gathered and made available for monitoring of operational performance. However, the ever-changing and open nature of CASs (Braithwaite et al., 2017a) hinders the elimination of special causes of variation. Even though some major special causes of variation may be eliminated, it can be questioned if it is possible to achieve a state of statistical control. Instead, presenting continuous performance data and statistical tools (e.g., control charts) to clinicians, who can use the feedback to improve their care operations, may have a greater potential than using variation as a tool for systematic design and refinement of processes by managers. This idea was supported, even though not quantitively evaluated, in the promotion of VBHC (paper 2) and LHS (paper 4).

- *Psychology* has already been elevated as even more important in the complex context of healthcare than in less complex systems (Bergman et al., 2015). This thesis supports the view that knowledge of psychology is very important to attract improvements among different actors, such as nurses or physicians. Understanding the different logics that permeate healthcare is closely connected and can serve as a bridge between actors and concepts (like MIs), as described above.

The integration of QM and complexity science applies to healthcare, as a field characterised by significant complexity (Plsek and Greenhalgh, 2001). However, more and more businesses and sectors of society are experiencing increased complexity (Elg et al., 2021; Sabadka et al., 2019; Siva et al., 2018) and hence, these implications can be of relevance to other contexts as well.

As a second area of theoretical implications, this thesis draws attention to parallelism of MIs. As indicated in the introductory chapter, earlier research has often considered one MI at a time, or sometimes specific combinations of MIs, but less often acknowledged compound contexts influenced by multiple MIs (Örtenblad, 2015) or multi-standard organisations (Røvik, 2008). The findings illustrate that MIs can be seen as interrelated components of a CAS and the explication of their underlying logics can be a useful approach to understanding how they can be combined and formed to fit together, as discussed above and in line with the notion of integration logics (Schildt and Perkmann, 2017; Wikström and Dellve, 2009).

Third, the application of MIs is often studied in terms of implementation. However, this thesis suggests that translation may be a more fruitful approach to contextualize MIs. This is explicitly proposed in paper 2 but also supported by the findings of papers 4 and 5, showing how theoretical concepts (i.e., MIs) can be adapted and formed to imply different management practices. Hence, an implication for implementation science is the suggestion not to study implementation using a natural science perspective applied to the instance of innovation for management. That is, scholars are advised not to treat medico-technical and managerial innovations in the same way (Damschroder et al., 2009) or emphasise static organisational antecedents of successful implementations (Emmons et al., 2012; Lin et al., 2017; Ulhassan et al., 2013). Instead, *translation* can be an advantageous approach even for the implementation of evidence-based medical interventions (Reed et al., 2018). This thesis supports those findings and suggests that they may be equally – or even more – relevant for MIs, which entail more social and relational aspects (Alänge et al., 1998). If appreciated as a social science, applying the view that application of MIs implies translation, adaptation, and modification (Ansari et al., 2010; Czarniawska and Sevón, 1996; Røvik, 2016, 2011), more useful guidance for the process of contextualization can be provided and the failure or success of MIs better understood. Furthermore, acknowledging the importance of contextualization also corresponds to the difficulties in spreading a locally developed improvement (i.e., an innovation) to other organisations or parts of the system. That is, in line with Pettigrew's (1990, p. 269) view that "explanations of change are bound to be holistic and multifaceted" the key to producing transferrable knowledge about MIs is to study *how* an MI is contextualized and the management practices it results in. In this endeavour, AR can be a well-suited research approach.

Fourth, MIs, in general, are aimed at achieving improvements, as is also QM (either packaged as MIs like lean or six sigma or generally). In scholarly discourse, these fields are often discussed separately, while in managerial practice such a distinction is not relevant. For managers, the aim is improvements regardless of the source of inspiration. This thesis contributes by connecting the discussion about the utility and utilisation of MIs in general with the field of QM and quality improvement, which can help achieve a more holistic view of the pursuit for improvements in healthcare. An indication of the approximation of different theories aiming for improvements is found in paper 5, where there seem to be an increasing recognition of customers (e.g., patients, families etc.) as cocreators of value in networks, resembling the customer focus for improvements in QM.

5.6 Practical implications

This thesis started from the practical issue of how to achieve improvements in healthcare despite its complexity and inherent challenges, such as scarcity of resources, multitudes of

stakeholders, and parallel conceptual influences (of for example MIs). The responses to the RQs include several practical implications for meso-level managers, which are illuminated in this section. Worth noting, the model developed in Figure 5.2 is a sharp simplification of a managerial reality that is much more complex. However, it points to some important advice to practice.

The findings suggest that healthcare managers should acknowledge that their contexts are CASs, rather than adopting a view of an efficient healthcare organisation as a well-oiled machine (Plsek and Wilson, 2001), which implies acceptance of the impossibility of overview, prediction, and control of the system (Sterman, 2006). However, a relative comprehension of the complex environment (the CAS) may be possible. Managers are therefore advised to map influential CAS components (e.g., external, and internal actors, technical features like evidence-based interventions, and contemporary management trends) and important interrelations. As illustrated in this thesis, identifying underlying logics (i.e., assumptions about how to achieve organisational aims, such as high quality of care) can be a useful way to identify relations that can be important to design improvement efforts, communicate, and attract change.

Moreover, MIs can put pressure on meso-level managers and add to the complexity of the system but they can also be used as packages of relevant management practices to achieve improvements. Again, to avoid frustration or putting effort into dodging MIs, identifying relations between underlying logics (of different MIs and other components of the existing CAS) can be a useful entrance. If those relations are identified, assessment of whether a new MI fits, or can be moulded to fit an organisation and support the desired development becomes easier. Next, the process of contextualization should be acknowledged as an opportunity to adapt the MI and attract change in the organisation, with the involvement of relevant actors in distributed leadership (Braithwaite et al., 2017a; Greenfield et al., 2009). That is, similarly to what has been suggested for the translation of evidence (Reed et al., 2018), managers should 1) embrace complexity and try to attain a knowledge of both their unique contexts and new MIs, and 2) managers should use that knowledge to adapt their actions pragmatically and iteratively. In this process, managers are advised to 3) engage all relevant internal actors, facilitate dialogue, and purposely use their knowledge about drivers and motivators (i.e., underlying logics) to attract development in a desired general direction (avoiding micro-management).

Finally, traditional approaches for improvements as advocated by QM are not obsolete but can be modified by inspiration from complexity science. Performance measurement and use of statistical tools are still useful approaches to achieving improvements (Batalden and Stoltz, 1995; Marshall, 2009), but the capacity of clinicians to use such data themselves can be better exploited.

I argue that these implications apply to many healthcare settings since the occurrence of MIs is a global phenomenon (Örtenblad et al., 2015), the complexity of pursuing quality improvements is well documented (Marshall et al., 2017), and the suggestions I have made for how to approach MIs and complexity are at a general level. However, the research has been deeply embedded within the specific context of psychiatry and psychosis care and some findings are specific to that context. For example, the view of value among professionals and managers (paper 1) was often focused on patients' unique experiences and the fulfilment of personal goals, rather than easily measurable outcomes. However not specifically studied, the culture of the psychiatric

context may be less supportive of quantification of outcomes than other care contexts, which can imply an increased difficulty in applying traditional QM tools and practices, as well as MIs emphasising measurement, like VBHC (paper 1 and 2) and LHS (paper 4). Due to the chronic nature of the conditions (e.g., schizophrenia), care contacts often extend over many years and clinicians value personal relationships a lot, which makes structural separation and reorganisation less feasible, as seen in paper 3. In other care contexts, even for chronic conditions, separation of value configurations may be more feasible and the value of parallel configurations less.

5.7 Methodological considerations and limitations

As discussed in chapter 3, the single-setting AR approach entails some important limitations. First, organisational conditions differ between, for example, medical specialities, large and small care providers, systems with or without competition, and nations with different cultures and structures. Hence, even though the developed model is outlined in general terms, its validity and applicability need to be tested in more contexts. The context of this case (psychiatry, and especially psychosis care, at a large university hospital) has certain circumstances that distinguish it from other types of care but also characteristics that are general for healthcare. The case can be typical for care for chronic conditions, for patient groups that are (under periods) unable to manage their own care due to cognitive impairments, for conditions where interventions are of psychosocial rather than technical nature, and for conditions that lack easily measured outcomes (or where the organisational culture is not supportive of measurements). Similar contexts can be care for patients with dementia or developmental disabilities, but in some respects also for example care for patients with neurological conditions, substance abuse, and diabetes. On the other hand, circumstances like multiple MIs being imposed on departments from external actors and superior managers, strong professions with diverging views, difficulties in aggregating reliable performance data, and unsatisfactory diffusion of innovations are common in many healthcare organisations.

Furthermore, the studies have been qualitative by nature and the effects of the studied processes and phenomena have not been assessed. Quantitative studies are therefore a way towards establishing whether the studied MIs, together with the chosen approaches for their contextualization, are effective or not.

Moreover, logics have emerged as a way to understand MIs and CASs. However, the studies were not originally designed to specifically study underlying assumptions about roles, goals, and practices for how the organisation in focus achieves its aims (i.e., logics). Instead, this aspect was a result of the abductive approach. Logics were recognised in the first study and present as a supporting view in later studies but emerged as a key concept only in the summarising analysis when matched with previous theories. A next step would be to study this phenomenon deductively by studies specifically designed to investigate underlying logics. Hence, this is an area suggested for future research.

6. Conclusions

This thesis has attempted to synthesise earlier research from the fields of quality management (QM), complexity science, and management innovations (MIs) with the findings of the five appended papers, to shed light on the issue of how MIs can be understood and used to achieve improvements and handle complexity in healthcare from a meso-level management perspective. It contributes to the field of healthcare management by integrating knowledge of MIs and QM as two parallel approaches for improvements in healthcare. The integration of these perspectives can further a more holistic understanding of how improvements can be pursued, which can be utilised to provide more useful guidance to healthcare managers. Viewing healthcare as a complex adaptive system (CAS) refutes definite guidance for how to achieve improvements (with or without the use of MIs). However, the model presented in Figure 5.2 provides a suggestion for how contextual components can be viewed to create a relative comprehension of a CAS surrounding a healthcare manager. That comprehension can serve as a base to approach complexity and pursue improvements, constituting a supportive tool that may cause less frustration than tools based on a more rational view of systems. The further implications for scholars and practitioners of healthcare management can be summarised in three practically oriented and two theoretically oriented propositions:

Propositions to practice

Proposition 1: Mapping important components of a CAS, with emphasis on logics connected to other system components, can create a relative comprehension of the system surrounding a meso-level manager, which can guide how to use MIs and attract change. This approach can help the integration of management practices from different theoretical backgrounds.

Proposition 2: Identifying underlying logics connected to MIs can help in comparing, combining, choosing, and contextualizing MIs into an organisational context.

Proposition 3: Implementation of MIs can be seen as a process of contextualization, in which translation is a key approach.

Propositions to theory

Proposition 4: QM and complexity science can be further integrated to provide more useful guidance for managers and scholars.

Proposition 5: Parallelism of MIs can be recognised more to further the understanding of how and why some MIs are successful in some settings (or not).

This thesis deliberately avoids presenting ready-made solutions or elaborate explanations to specific phenomena. Adopting the view of healthcare as a CAS means that the context of healthcare managers is constantly evolving in unpredictable ways and, hence, I have chosen only to make suggestions for *how to approach* that complexity. In conclusion, the pursuit of improvements should not be approached as a task of engineering and oiling a machinery. Instead, healthcare managers are advised to seek to acquire some degree of comprehension of the vast contextual complexity and its major components, starting from identifying influential logics, translate MIs to become useful, and attract the desired change.

7. Future research

The findings of this thesis suggest that positive and detailed instructions to managers on how to use MIs or achieve improvements are unfeasible or nonviable. However, future studies can investigate management practices closer to allow more hands-on descriptions and suggestions for how to approach complexity in different situations. For example, more research on how underlying logics can be identified and how logics can be integrated in practice would be valuable. Another interesting area is the role of data and knowledge of variation in a CAS characterised by constant emerging development and where managers are advised against trying to control processes directly.

Furthermore, MIs in this thesis are handled as one relatively homogeneous – however ambiguous and mouldable – phenomenon. Managers are advised to investigate new MIs in terms of underlying logic(s) and use them pragmatically to form management practices and organisational characteristics to pursue improvements. To better investigate and understand MIs, managers could be helped by tools and frameworks to systematically identify elements and characteristics of the MIs. More research is needed to support such a systematic mapping, or "typing", of MIs.

The promotion of logics as a key aspect of MIs also calls for a deeper understanding of the concept of logics. The findings indicate that logics and underlying assumptions are important aspects to connect different system components, but future studies can include more in-depth interview questions about these types of assumptions to provide more reliable answers about the logics that underlie different actors and MIs. Such research can also acknowledge institutional theory, which has long taken an interest in (institutional) logics that influence organisations, such as healthcare providers. The definition of logics in this thesis differs from the definition of institutional logics but integrating institutional theory with management innovations and QM may be an interesting path for future research, to create a better understanding of the concept of logics.

Last, previous research has sometimes viewed technological innovations as less complex than MIs. However, in the era of digitalisation, more and more innovations that can be seen as technological include fundamentally new ways of working and interacting within healthcare. Hence, these innovations include more social aspects than some earlier technological innovations that have improved care but have built on the existing model for how care is delivered. Future studies can investigate the relevance of such dichotomic discrimination or nuance the division of types of innovations.

8. References

Abernethy, M.A., Stoelwinder, J.U., 1995. The role of professional control in the management of complex organizations. Accounting, Organizations, and Society 20, 1–17.

Abrahamson, E., 1996. Management fashion. Academy of Management Review 21, 254–285.

Abrahamson, E., 1991. Managerial Fads and Fashions: The Diffusion and Rejection of Innovations. The Academy of Management Review 16, 586–612.

Abrahamson, E., Fairchild, G., 1999. Management Fashion: Lifecycles, Triggers, and Collective Learning Processes. Administrative Science Quarterly 44, 708–740.

Adler, P.A., Adler, P., 1987. Membership roles in field research. SAGE, Thousand Oaks, CA.

Aggarwal, A., Aeran, H., Rathee, M., 2019. Quality management in healthcare: The pivotal desideratum. Journal of Oral Biology and Craniofacial Research 9, 180–182.

Ahn, C., Rundall, T.G., Shortell, S.M., Blodgett, J.C., Reponen, E., 2021. Lean Management and Breakthrough Performance Improvement in Health Care. Quality Management in Health Care 30, 6–12.

Alänge, S., Jacobsson, S., Jarnehammar, A., 1998. Some aspects of an analytical framework for studying the diffusion of organizational innovations. Technology Analysis & Strategic Management 10, 3–22.

Alvesson, M., Sköldberg, K., 2017. Reflexive Methodology: New Vistas for Qualitative Research, 3rd ed. SAGE Publications, London.

Andersen, H., Røvik, K.A., 2015. Lost in translation: a case-study of the travel of lean thinking in a hospital. BMC Health Serv Res 15, 401.

Andersen, H., Røvik, K.A., Ingebrigtsen, T., 2014. Lean thinking in hospitals: is there a cure for the absence of evidence? A systematic review of reviews. BMJ Open 4, e003873.

Andersson, R., Eriksson, H., Torstensson, H., 2006. Similarities and differences between TQM, six sigma and lean. The TQM Magazine.

Andersson, T., 2022. If It Is Complex, Let It Be Complex – Dealing With Institutional Complexity in Hospitals. International Journal of Health Policy and Management 1–3.

Ansari, S.M., Fiss, P.C., Zajac, Z.J., 2010. Made to fit: How practices vary as they diffuse. Academy of Management Review 35, 67–92.

Ansmann, L., Pfaff, H., 2018. Providers and patients caught between standardization and individualization: Individualized standardization as a solution: Comment on "(re) making the procrustean bed? standard and customization as competing logics in healthcare." International Journal of Health Policy and Management 7, 349–352.

Argyris, C., 2004. Reasons and Rationalizations: The Limits to Organizational Knowledge. Oxford University Press, New York.

Azevedo, J., 1997. Mapping Reality: An Evolutionary Realist Methodology for the Natural and Social Sciences. State University of New York Press, Albany, NY.

Baiyere, A., Salmela, H., Tapanainen, T., 2020. Digital transformation and the new logics of business process management. European Journal of Information Systems 29, 238–259.

Balding, C., 2005. Embedding organisational quality improvement through middle manager ownership. International Journal of Health Care Quality Assurance 18, 271–288.

Bamford, D.R., Greatbanks, R.W., 2005. The use of quality management tools and techniques: A study of application in everyday situations. International Journal of Quality and Reliability Management 22, 376–392.

Bansal, P.T., Smith, W.K., Vaara, E., 2018. New ways of seeing through qualitative research. Academy of Management Journal. https://doi.org/10.5465/amj.2018.4004

Batalden, P.B., Davidoff, F., 2007. What is "quality improvement" and how can it transform healthcare? Qual Saf Health Care 16, 2–3.

Batalden, P.B., Stoltz, P.K., 1995. Quality Management and Continual Improvement of Health Care: A Framework. The Journal of Continuing Education of the Health Professions 15, 146–164.

Batalden, P.B., Stoltz, P.K., 1993. A Framework for the Continual Improvement of Health Care: Building and Applying Professional and Improvement Knowledge to Test Changes in Daily Work. The Joint Commission Journal on Quality Improvement 19, 424–447.

Begun, J.W., Zimmerman, B., Dooley, K., 2003. Health Care Organizations as Complex Adaptive Systems, in: Advances in Health Care Organization Theory. pp. 253–288.

Beirão, G., Patrício, L., Fisk, R.P., 2017. Value cocreation in service ecosystems: Investigating health care at the micro, meso, and macro levels. Journal of Service Management 28, 227–249.

Belfanti, N., 2019. Adoption of lean practices as management innovation. A review and conceptualisation, Int. J. Business Innovation and Research.

Benders, J., van Veen, K., 2001. What's in a Fashion? Interpretative Viability and Management Fashions. Organization 8, 33–53.

Benders, J., Verlaar, S., 2003. Lifting parts: putting conceptual insights into practice. International Journal of Operations & Production Management 23, 757–774.

Bergman, B., Hellström, A., Lifvergren, S., Gustavsson, S.M., 2015. An Emerging Science of Improvement in Health Care. Quality Engineering 27, 17–34.

Berwick, D.M., 2008. The Science of Improvement, JAMA.

Best, A., Greenhalgh, T., Lewis, S., Saul, J.E., Carroll, S., Bitz, J., 2012. Large-System Transformation in Health Care: A Realist Review. The Milbank Quarterly 90, 421–456.

Bhaskar, R., 1979. The Possibility of Naturalism: A philosophical critique of contemporary human sciences. Harvester Press, Brighton.

Birken, S.A., Powell, B.J., Shea, C.M., Haines, E.R., Alexis Kirk, M., Leeman, J., Rohweder, C., Damschroder, L., Presseau, J., 2017. Criteria for selecting implementation science theories and frameworks: Results from an international survey. Implementation Science 12, 1–9.

Birkinshaw, J., Hamel, G., Mol, M.J., 2008. Management Innovation. Academy of Management Review 33, 825–845.

Birkinshaw, J., Mol, M., 2006. How Management Innovation Happens, MIT Sloan Management Review.

Boaden, R., Harvey, G., Moxham, C., Proudlove, N., 2008. Quality Improvement: Theory and Practice in Healthcare. Coventry.

Boitier, M., Riviere, A., Wenzlaff, F., Hattke, F., 2018. Hybrid Organizational Responses to Institutional Complexity: A Cross-Case Study of Three European Universities. Management international 22, 121–135.

Bonde, M., Bossen, C., Danholt, P., 2018. Translating value-based health care: an experiment into healthcare governance and dialogical accountability. Sociology of Health and Illness 40, 1113–1126.

Bort, S., 2015. Turning a management innovation into a management panacea: management ideas, concepts, fashions, practices and theoretical concepts, in: Örtenblad, A. (Ed.), Handbook of Research on Management Ideas and Panaceas. Edward Elgar Publishing, Cheltenham, UK, pp. 35–56.

Boxenbaum, E., Battilana, J., 2005. Importation as innovation: Transposing managerial practices across fields. Strategic Organization 3, 355–383. https://doi.org/10.1177/1476127005058996

Boxenbaum, E., Jonsson, S., 2008. Isomorphism, diffusion, and decoupling, in: Greenwood, R., Oliver, C., Sahlin, K., Suddaby, R. (Eds.), Organizational Institutionalism. SAGE, Thousand Oaks, CA, pp. 78–98.

Boyer, E.L., 1990. Scholarship reconsidered: Priorities of the professoriate. The Carnegie Foundation for the Advancement of Teaching, Princeton, NJ.

Bradbury, H., Lifvergren, S., 2016. Action research healthcare: Focus on patients, improve quality, drive down costs. Healthcare Management Forum 29, 269–274.

Braithwaite, J., Churruca, K., Ellis, L.A., Long, J., Clay-Williams, R., Damen, N., Herkes, J., Pomare, C., Ludlow, K., 2017a. Complexity Science in Healthcare.

Braithwaite, J., Churruca, K., Long, J.C., Ellis, L.A., Herkes, J., 2018. When complexity science meets implementation science: A theoretical and empirical analysis of systems change. BMC Medicine 16, 1–14.

Braithwaite, J., Glasziou, P., Westbrook, J., 2020. The three numbers you need to know about healthcare: The 60-30-10 Challenge. BMC Medicine 18, 1–8.

Braithwaite, J., Runciman, W.B., Merry, A.F., 2009. Towards safer, better healthcare: harnessing the natural properties of complex sociotechnical systems. Quality and Safety in Health Care 18, 37–41.

Braithwaite, J., Wears, R.L., Hollnagel, E., 2017b. Resilient Health Care: Reconciling Work-as-Imagined and Work-as-Done. Taylor & Francis, Boca Raton.

Braithwaite, J., Wears, R.L., Hollnagel, E., 2015. Resilient health care: Turning patient safety on its head. International Journal for Quality in Health Care 27, 418–420.

Breen, L.J., 2007. The researcher "in the middle": Negotiating the insider/outsider dichotomy. The Australian Community Psychologist 19, 163–174.

Bridges, J., Meyer, J., 2007. Exploring the effectiveness of action research as a tool for organizational change in health care. Journal of Research in Nursing 12, 389–399. https://doi.org/10.1177/1744987107078635

Bringselius, L., 2018. Vad är tillitsbaserad styrning och ledning? , in: Bringselius, L. (Ed.), Styra Och Leda Med Tillit: Forskning Och Praktik (Statens Offentliga Utredningar 2018:38). Regeringskansliet, Norstedts Juridik AB, Stockholm, Sweden.

Brooks, J., McCluskey, S., Turley, E., King, N., 2015. The Utility of Template Analysis in Qualitative Psychology Research. Qualitative Research in Psychology 12, 202–222.

Bryman, A., Bell, E., 2011. Business Research Methods, 3. ed. ed, Social Research. Oxford University Press, Oxford.

Card, A.J., 2017. Moving Beyond the WHO Definition of Health: A New Perspective for an Aging World and the Emerging Era of Value-Based Care. World Medical & Health Policy 9, 127–137.

Cassell, C., Symon, G., Buehring, A., Johnson, P., 2006. The role and status of qualitative methods in management research: An empirical account. Management Decision 44, 290–303.

Catena, R., Dopson, S., Holweg, M., 2020. On the tension between d and customized policies in health care: The case of length-of-stay reduction. Journal of Operations Management 66, 135–150.

Choi, S., 2011. Competing Logics in Hospital Mergers The case of the Karolinska University Hospital. Karolinska Institutet, Stockholm.

Christensen, C.M., Grossman, J.H., Hwang, J., 2009. The Innovator's Prescription. McGraw-Hill, New York.

Christensen, T., Lægreid, P., 2011. Complexity and Hybrid Public Administration-Theoretical and Empirical Challenges. Public Organization Review 11, 407–423.

Cicmil, S., 2006. Understanding Project Management Practice Through Interpretative and Critical Research Perspectives. Project Management Journal 37, 27–37.

Clancy M A, T.R., Delaney D, C.P., Thomas Clancy, C.R., 2001. Complex nursing systems, Journal of Nursing Management.

Clark, T., 2004. The fashion of management fashion: a surge too far? Organization 11, 297–306.

Coghlan, D., Brannick, T., 2014. Doing action research in your own organization, 4th ed. SAGE, London.

Coughlan, P., Coghlan, D., 2002. Action research for operations management. International Journal of Operations & Production Management 22, 220–240.

Cunningham, F.C., Ranmuthugala, G., Plumb, J., Georgiou, A., Westbrook, J.I., Braithwaite, J., 2012. Health professional networks as a vector for improving healthcare quality and safety: A systematic review. BMJ Quality and Safety.

Czarniawska, B., Sevón, G., 1996. Translating Organizational Change. De Gruyter, Berlin.

Dahlgaard, J.J., Dahlgaard-Park, S.M., 2006. Lean production, six sigma quality, TQM and company culture. The TQM Magazine 18, 263–281.

Dale, B.G., Williams, A.R.T., van der Wiele, T., Greatbanks, R., 2002. Organizational change through quality deposits. Quality Engineering 14, 381–389.

Damschroder, L., Aron, D.C., Keith, R.E., Kirsh, S.R., Alexander, J.A., Lowery, J.C., 2009. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. Implementation Science 4, 40–55.

D'Andreamatteo, A., Ianni, L., Lega, F., Sargiacomo, M., 2015. Lean in healthcare: A comprehensive review. Health Policy 119, 1197–1209.

Dean, J.W., Bowen, D.E., 1994. Management Theory and Total Quality: Improving Research and Practice through Theory Development. The Academy of Management Review 19, 392–418.

Deming, W.E., 1994. The New Economics for Industry, Education, Government, 2nd ed. MIT Press, Cambridge, MA.

Deming, W.E., 1986. Out of the crisis. MIT Press, Cambridge, MA.

Dixon-Woods, M., Baker, R., Charles, K., Dawson, J., Jerzembek, G., Martin, G., McCarthy, I., McKee, L., Minion, J., Ozieranski, P., Willars, J., Wilkie, P., West, M., 2014. Culture and behaviour in the English National Health Service: overview of lessons from a large multimethod study. BMJ Qual Saf 23, 106–15.

Donabedian, A., 1997. The quality of care. How can it be assessed? JAMA 260, 1743–1748.

Eccles, M., Mittman, B., 2006. Welcome to Implementation Science. Implementation Science 1, 1.

Eikeland, O., 2006. Condescending ethics and action research: Extended review article. Action Research 4, 37–47.

Elg, M., Birch-Jensen, A., Gremyr, I., Martin, J., Melin, U., 2021. Digitalisation and quality management: problems and prospects. Production Planning and Control 32, 990–1003.

Elg, M., Broryd, K.P., Kollberg, B., 2013. Performance measurement to drive improvements in healthcare practice. International Journal of Operations & Production Management 33, 1623–1651.

Elg, M., Gremyr, I., Halldórsson, Á., Wallo, A., 2020. Service action research: review and guidelines. Journal of Services Marketing 34, 87–99.

Elg, M., Stenberg, J., Kammerlind, P., Tullberg, S., Olsson, J., 2011a. Swedish healthcare management practices and quality improvement work: development trends. International Journal of Health Care Quality Assurance 24, 101–123.

Elg, M., Stenberg, J., Kammerlind, P., Tullberg, S., Olsson, J., 2011b. Swedish healthcare management practices and quality improvement work: development trends. International Journal of Health Care Quality Assurance 24, 101–123.

Elmersjö, M., Sundin, E., 2020. Intra-Organisational Trust and Home Care Services: A Study of the Process of Implementing Trust-Based Practices in Municipal Eldercare in Sweden. Scandinavian Journal of Public Administration 25, 3–21.

Emmons, K.M., Weiner, B., Fernandez, M.E., Tu, S.P., 2012. Systems antecedents for dissemination and implementation: A review and analysis of measures. Health Education and Behavior.

Eriksson, E., Gadolin, C., Andersson, T., Hellström, A., Lifvergren, S., 2021. Value Propositions in Public Collaborations: Regaining Organizational Focus Through Value Configurations. British Journal of Management.

Fältholm, Y., Jansson, A., 2008. The implementation of process orientation at a Swedish hospital. The International Journal of Health Planning and Management 23, 219–233.

Fischbacher, C.M., Lewsey, J., Muirie, J., McCartney, G., 2021. A critical reflection on the use of improvement science approaches in public health. Scandinavian Journal of Public Health.

Fitzgerald, L., Ferlie, E., McGivern, G., Buchanan, D., 2013. Distributed leadership patterns and service improvement: Evidence and argument from English healthcare. Leadership Quarterly 24, 227–239.

Fjeldstad, Ø.D., Johnson, J.K., Margolis, P.A., Seid, M., Höglund, P., Batalden, P.B., 2019. Networked health care: Rethinking value creation in learning health care systems. Learning Health Systems 4, 1–9.

Flick, U., 2009. An introduction to qualitative research, 4th ed. ed. Sage Publications, London, UK.

Foley, T., Horwitz, L., Zahran, R., 2021. Realising the Potential of Learning Health Systems. Newcastle.

Fredriksson, J.J., Ebbevi, D., Savage, C., 2015. Pseudo-understanding: an analysis of the dilution of value in healthcare. BMJ Quality & Safety 24, 451–457.

Gadolin, C., 2017. The Logics of Healthcare - In Quality Improvement Work.

Gallagher, M., Hares, T., Spencer, J., Bradshaw, C., Webb, I., 1993. The Nominal Group Technique: A Research Tool for General Practice? Family Practice 10, 76–81.

Gebauer, H., Haldimann, M., Jennings Saul, C., 2017. A typology for management innovations: Analyzing the actual state of art and conducting case study research. European Journal of Innovation Management 20, 514–533.

Gill, J., Whittle, S., 1993. Management by panacea: accounting for transience. Journal of Management Studies 30, 281–297.

Giroux, H., 2006. "It was such a handy term": Management fashions and pragmatic ambiguity. Journal of Management Studies 43, 1227–1260.

Glenn, L.A., Stocker-Schnieder, J., Mccune, R., Mcclelland, M., King, D., 2014. Caring nurse practice in the intrapartum setting: Nurses' perspectives on complexity, relationships and safety. Journal of Advanced Nursing 70, 2019–2030.

Glouberman, S., Mintzberg, H., 2001. Managing the care of health and the cure of disease – Part I: Differentiation. Health Care Manage Rev 26, 56–69.

Greenfield, D., Braithwaite, J., Pawsey, M., Johnson, B., Robinson, M., 2009. Distributed leadership to mobilise capacity for accreditation research. Journal of Health, Organisation and Management 23, 255–267.

Greenfield, D., Eljiz, K., Butler-Henderson, K., 2018. It takes two to tango: Customization and standardization as colluding logics in healthcare: Comment on "(re) making the procrustean bed standardization and customization as competing logics in healthcare." International Journal of Health Policy and Management 7, 183–185.

Greenhalgh, T., Robert, G., Bate, P., Kyriakidou, O., Macfarlane, F., Peacock, R., 2004. How to spread good ideas. A systematic review of the literature on diffusion, dissemination and sustainability of innovations in health service delivery and organisation, Report: National Co-ordinating Centre for NHS Service Delivery and Organisation R & D. London.

Greenhalgh, T., Wherton, J., Papoutsi, C., Lynch, J., Hughes, G., A'Court, C., Hinder, S., Fahy, N., Procter, R., Shaw, S., 2017. Beyond Adoption: A New Framework for Theorizing and Evaluating Nonadoption,

Abandonment, and Challenges to the Scale-Up, Spread, and Sustainability of Health and Care Technologies. Journal of Medical Internet Research 19, e367.

Greenwood, D., Levin, M., 2007. Introduction to Action Research: Social research for social change, 2:nd ed. SAGE Publications, Thousand Oaks, CA.

Greenwood, D.J., Levin, M., 2007. Introduction to Action Research: Social Research for Social Change, 2nd ed. SAGE, Thousand Oaks.

Gremyr, A., Andersson Gäre, B., Greenhalgh, T., Malm, U., Thor, J., Andersson, A.-C., 2019a. Complexity assessment to inform development and deployment of a digital dashboard for schizophrenia care: a case study (Preprint). Journal of Medical Internet Research.

Gremyr, A., Andersson Gäre, B., Thor, J., Elwyn, G., Batalden, P., Andersson, A.C., 2021. The role of co-production in learning health systems. International Journal for Quality in Health Care 33, II26–II32.

Gremyr, A., Malm, U., Lundin, L., Andersson, A.-C., 2019b. A learning health system for people with severe mental illness: a promise for continuous learning, patient coproduction and more effective care. Digital Psychiatry 2, 8–13.

Gremyr, I., Elg, M., 2014. A developmental view on implementation of quality management concepts. International Journal of Quality and Service Sciences 6, 143–154.

Grönroos, C., 2015. Service management and marketing, 4th ed. John Wiley, Chichester, England.

Guba, E.G., Lincoln, Y.S., 1986. But Is It Rigorous? Trustworthiness and Authenticity in Naturalistic Evaluation, in: Williams, D. (Ed.), Naturalistic Evaluation. New Directions for Evaluation, No. 30. Jossey-Bass, San Fransisco.

Gummerus, J., 2013. Value creation processes and value outcomes in marketing theory: Strangers or siblings? Marketing Theory 13, 19–46.

Habermas, J., 1972. Knowledge and human interest; Theory and practice; Communication and the evolution of society. Heinemann, London, UK.

Halldorsson, A., Aastrup, J., 2003. Quality criteria for qualitative inquiries in logistics. European Journal of Operational Research 144, 321–332.

Hansson, J., Klefsjö, B., 2003. A core value model for implementing total quality management in small organisations. The TQM magazine 15, 71–81.

Harzing, A.W.K., van der Wal, R., 2008. Google Scholar as a new source for citation analysis. Ethics in Science and Environmental Politics 8, 61–73.

Healy, M., Perry, C., 2000. Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. Qualitative market research: An international journal 3, 118–126.

Hellsten, U., Klefsjö, B., 2000. TQM as a management system consisting of values, techniques and tools. The TQM Magazine 12, 238–244.

Herr, K., Anderson, G., 2005. The Action Research Dissertation: A Guide for Students and Faculty. SAGE Publications, Thousand Oaks, CA.

Heusinkveld, S., Benders, J., 2012. On sedimentation in management fashion: an institutional perspective. Journal of Organizational Change Management 25, 121–142.

Heusinkveld, S., Benders, J., Hillebrand, B., 2013. Stretching Concepts: The Role of Competing Pressures and Decoupling in the Evolution of Organization Concepts. Organization Studies 34, 7–32.

Hill, J.E., Stephani, A.M., Sapple, P., Clegg, A.J., 2020. The effectiveness of continuous quality improvement for developing professional practice and improving health care outcomes: A systematic review. Implementation Science.

Høiland, G.C.L., Klemsdal, L., 2020. Organizing professional work and services through institutional complexity – how institutional logics and differences in organizational roles matter, Human Relations.

Hood, C., 1991. A Public Management for All Seasons? Public Administration 69, 3–19.

Humphrey, C., 2007. Insider-outsider: Activating the hyphen. Action Research 5, 11–26.

Hwang, J., Christensen, C.M., 2008. Disruptive innovation in health care delivery: a framework for business-model innovation. Health Aff (Millwood) 27, 1329–35.

Institute for Healthcare Improvement, 2022. Science of Improvement [WWW Document]. URL http://www.ihi.org/about/Pages/ScienceofImprovement.aspx (accessed 1.19.22).

Institute of Medicine, 2012. Roundtable on Value & Science-Driven Health Care. IOM, Washington, DC.

Institute of Medicine, 2001. Crossing the Quality Chasm: A New Health System for the 21st Century, Institute of Medicine. National Academy Press, Washington DC.

Institute of Medicine, 2000. To Err Is Human: Building a Safer Health System. National Academy Press, Washington DC.

Jacobsson, M., Härgestam, M., Bååthe, F., Hagqvist, E., 2022. Organizational logics in time of crises: How physicians narrate the healthcare response to the Covid-19 pandemic in Swedish hospitals. BMC Health Services Research 22, 738.

Johnson, P., Buehring, A., Cassell, C., Symon, G., 2006. Evaluating qualitative management research: Towards a contingent criteriology. International Journal of Management Reviews 8, 131–156.

Kaboolian, L., 2000. Quality comes to the public sector, in: Cole, R.E., Scott, W.R. (Eds.), The Quality Movement & Organization Theory. Sage Publications, Thousand Oaks, pp. 131–153.

Kannampallil, T.G., Schauer, G.F., Cohen, T., Patel, V.L., 2011. Considering complexity in healthcare systems. Journal of Biomedical Informatics 44, 943–947. https://doi.org/10.1016/j.jbi.2011.06.006

Kaplan, R.S., Norton, D.P., 1992. The balanced scorecard--measures that drive performance. Harvard Business Review 70, 71–79.

Kaynak, H., 2003. The relationship between total quality management practices and their effects on firm performance. Journal of Operations Management 21, 405–435.

Kirk, M.A., Kelley, C., Yankey, N., Birken, S.A., Abadie, B., Damschroder, L., 2015. A systematic review of the use of the Consolidated Framework for Implementation Research. Implementation Science 11.

Kitchener, M., 2002. Mobilizing the Logic of Managerialism in Professional Fields: The Case of Academic Health Centre Mergers. Organization Studies 23, 391–420.

Kitson, A., Marshall, A., Bassett, K., Zeitz, K., 2013. What are the core elements of patient-centred care? A narrative review and synthesis of the literature from health policy, medicine and nursing. Journal of Advanced Nursing 69, 4–15.

Koch, T., Kralik, D., 2006. Participatory Action Research in Health Care. Blackwell Publishing, Oxford.

Kokeš, R., 2017. From hierarchies to networks : changes in organisation of public service delivery, in: Proceedings of the 61st Annual Meeting of the ISSS-2017. Vienna, Austria, pp. 1–14.

Kuziemsky, C., 2016. Decision-making in healthcare as a complex adaptive system. Healthcare Management Forum 29, 4–7.

Latour, B., 1986. The powers of association, in: Law, J. (Ed.), Power, Action and Belief. Routledge & Kegan Paul, London, pp. 264–280.

Lewin, K., 1946. Action Research and Minority Problems. Journal of Social Issues 2, 34–46.

Lifvergren, S., Gremyr, I., Hellström, A., Chakhunashvili, A., Bergman, B., 2010. Lessons from Sweden's first large-scale implementation of Six Sigma in healthcare. Operations Management Research 3, 117–128.

Lifvergren, S., Huzzard, T., Hellstrom, A., 2015. Editorial to Special Issue - Action Research and Healthcare. Action Research 13, 3–8.

Lin, H., Chen, M., Su, J., 2017. How management innovations are successfully implemented? An organizational routines' perspective. Journal of Organizational Change Management 30, 456–486.

Lincoln, Y.S., Guba, E.G., 1985. Naturalist Inquiry. SAGE, Beverly Hills, CA.

Longest, B.B., Rakich, J.S., Darr, K., 2000. Managing health services organizations and systems. Health Professions Press, Baltimore, MD.

Longo, F., 2007. Implementing managerial innovations in primary care: Can we rank change drivers in complex adaptive organizations? Health Care Management Review 32, 213–225.

Lorino, P., 2018. Pragmatism and Organization Studies. Oxford University Press, Oxford, UK.

Maaloee, E., 1997. Case Studier – af og om Mennesker i Organisationer. Akademisk Forlag, Aarhus, Denmark.

MacQuarrie, C., 2010. Holistic Designs, in: Encyclopedia of Case Study Research. SAGE, Thousand Oaks, CA, pp. 442–443.

Madsen, D.Ø., 2015. Toward an Integrative Model of the Adoption and Implementation of Management Concepts. Global Conference on Business and Finance Proceedings 10, 447–453.

Malm, U., Lundin, L., Rydell, P., Nordén, T., Norlander, T., 2015. Resource Group ACT (RACT) – A Review of an Integrative Approach to Psychoeducation of Individual Families Involving the Patient. International Journal of Mental Health 44, 269–276.

Mannion, R., Exworthy, M., 2017. (Re) Making the procrustean bed? Standardization and customization as competing logics in healthcare. International Journal of Health Policy and Management 6, 301–304.

Marion, R., Uhl-Bien, M., 2001. Leadership in Complex Organizations. The Leadership Quarterly 12, 389–418.

Marshall, M., 2009. Applying quality improvement approaches to health care. BMJ 339, b3411.

Marshall, M., Pronovost, P., Dixon-Woods, M., 2013. Promotion of improvement as a science. The Lancet 381, 419–421.

Marshall, M., Silva, D. de, Cruickshank, L., Shand, J., Wei, L., Anderson, J., 2017. What we know about designing an effective improvement intervention (but too often fail to put into practice). BMJ Quality and Safety 26, 578–582.

Martin, J., Elg, M., Gremyr, I., 2020. The Many Meanings of Quality: Towards a Definition in Support of Sustainable Operations. Total Quality Management & Business Excellence 0, 1–14.

Matthews, J.I., Thomas, P.T., 2007. Managing clinical failure: A complex adaptive system perspective. International Journal of Health Care Quality Assurance 20, 184–194.

Maxwell, J.A., 2005. Qualitative Research Design: An Interactive Approach, Applied social research methods series. SAGE, Thousand Oaks, CA.

May, C., 2013. Towards a general theory of implementation. Implementation Science 8.

May, C.R., Johnson, M., Finch, T., 2016. Implementation, context and complexity. Implementation Science 11.

Mazza, C., Alvarez, J.L., 2000. Haute Couture and Prêt-à-Porter: The popular press and the diffusion of management practices. Organization Studies 21, 567–588.

Mazzocato, P., Savage, C., Brommels, M., Aronsson, H., Thor, J., 2010. Lean thinking in healthcare: a realist review of the literature. Qual Saf Health Care 19, 376–382.

Mazzocato, P., Thor, J., Bäckman, U., Brommels, M., Carlsson, J., Jonsson, F., Hagmar, M., Savage, C., 2014. Complexity complicates lean: lessons from seven emergency services. J Health Organ Manag 28, 266–88.

McCallin, A., 2001. Review Interdisciplinary practice ± a matter of teamwork: an integrated literature review. Journal of Clinical Nursing 10, 419–428.

McColl-Kennedy, J.R., Vargo, S.L., Dagger, T.S., Sweeney, J.C., Kasteren, Y. v., 2012. Health Care Customer Value Cocreation Practice Styles. Journal of Service Research 15, 370–389.

McDaniel, R.R., Lanham, H.J., Anderson, R.A., 2009. Implications of complex adaptive systems theory for the design of research on health care organizations. Health Care Management Review 34, 191–199.

McLaughlin, K., Osborne, S.P., Ferlie, E., 2001. New public management: Current trends and future prospects. Routledge, London.

McManus, K., 1999. Is quality dead? IIE Solutions 31, 32–36.

Menear, M., Blanchette, M.A., Demers-Payette, O., Roy, D., 2019. A framework for value-creating learning health systems. Health Research Policy and Systems 17, 1–13.

Micklethwait, J., Woolridge, A., 1996. The Witch Doctors: What Management Gurus Are Saying, Why It Matters and How to Make Sense of It. Times Books, New York.

Mihm, J., Loch, C.H., Wilkinson, D., Huberman, B.A., 2010. Hierarchical Structure and Search in Complex Organizations, Source: Management Science.

Miles, M.B., Huberman, A.M., Saldana, J., 2018. Qualitative data analysis: a methods sourcebook, 3rd ed. SAGE, Los Angeles.

Mintzberg, H., 2012. Managing the myths of health care. World hospitals and health services 48, 4–7.

Mintzberg, H., 2002. Managing care and cure – up and down, in and out. Health Serv Manage Res 15, 193–206.

Minvielle, E., Fourcade, A., Ricketts, T., Waelli, M., 2021. Current developments in delivering customized care: a scoping review. BMC Health Services Research 21, 575.

Minvielle, E., Sicotte, C., 2021. The quest of rationality: Standardization in the Delivery of Care. Journal of Organizational Psychology 20, 100–114.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G., 2009. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. BMJ (Online) 339, 332–336.

Morton, A., 1999. Ethics in Action Research. Systemic Practice and Action Research 12, 219–222.

Mossakowski, T., Goguen, J., Diaconescu, R., Tarlecki, A., 2007. What is a Logic?, in: Logica Universalis. Birkhäuser, Basel, Switzerland, pp. 111–133.

Nadeem, E., Olin, S.S., Campbell Hill, L., Eaton Hoagwood, K., McCue Horwitz, S., 2013. Understanding the Components of Quality Improvement Collaboratives: A Systematic Literature Review. The Milbank Quarterly 91, 354–394.

Nantha, Y.S., 2013. Intrinsic motivation: How can it play a pivotal role in changing clinician behaviour? Journal of Health, Organisation and Management.

Needham, C., 2018. Best of both worlds: Comment on "(Re) making the procrustean bed? standardization and customization as competing logics in healthcare." International Journal of Health Policy and Management 7, 356–358.

Nembhard, I.M., Alexander, J. a., Hoff, T.J., Ramanujam, R., 2009. Why Does the Quality of Health Care Continue to Lag? Insights from Management Research. Academy of Management Perspectives 23, 24–42.

Nguyen, T.L.H., Nagase, K., 2019. The influence of total quality management on customer satisfaction. International Journal of Healthcare Management 12, 277–285.

Nicolai, A.T., Schulz, A.C., Thomas, T.W., 2010. What wall street wants - Exploring the role of security analysts in the evolution and spread of management concepts. Journal of Management Studies 47, 162–189.

Nilsson, K., Sandoff, M., 2017. Leading implementation of the management innovation value-based healthcare at a Swedish University Hospital. Journal of Hospital Administration 6, 51.

Öfverström, H., 2008. Steget till chefskap – om läkare som verksamhetschefer [The step into management – On physicians as heads of departments]. BAS, Gothenburg, Sweden.

Örtenblad, A., 2015. Handbook of Research on Management Ideas and Panaceas. Edward Elgar Publishing, Cheltenham, UK.

Örtenblad, A., 2010. Homogeneity or heterogeneity? On the nature of management ideas and their spread. International Journal of Management Concepts and Philosophy 4, 71–86.

Örtenblad, A., Abrahamsson Löfström, C., Sheaff, R., 2015. Management Innovations for Healthcare Organizations: Adopt, Abandon or Adapt? Routledge, Abingdon-on-Thames.

Øvretveit, J., 2000. Total quality management in European healthcare. International Journal of Health Care Quality Assurance 13, 74–79.

Øvretveit, J., 1997. A comparison of hospital quality programmes: lessons for other services. International Journal of Service Industry Management 8, 220–235.

Øvretveit, J., Andreen-Sachs, M., Carlsson, J., Gustafsson, H., Hansson, J., Keller, C., Lofgren, S., Mazzocato, P., Tolf, S., Brommels, M., 2012. Implementing organisation and management innovations in Swedish healthcare. Journal of Health Organization and Management 26, 237–257.

Pande, P.S., Neuman, R.P., Cavanagh, R.R., 2000. The Six Sigma Way: How GE, Motorola, and Other Top Companies are Honing their Performance. McGraw-Hill, New York.

Pellissier, R., 2012. Innovation in a complex environment. SA Journal of Information Management 14.

Pettigrew, A.M., 1990. Longitudinal Field Research on Change: Theory and Practice. Organization Science 1, 267–292.

Pettigrew, A.M., 1987. Context and Action in the Transformation of the Firm. Journal of Management Studies 24, 649–670.

Pfadenhauer, L.M., Gerhardus, A., Mozygemba, K., Lysdahl, K.B., Booth, A., Hofmann, B., Wahlster, P., Polus, S., Burns, J., Brereton, L., Rehfuess, E., 2017. Making sense of complexity in context and implementation: The Context and Implementation of Complex Interventions (CICI) framework. Implementation Science 12, 1–17.

Plsek, P.E., Greenhalgh, T., 2001. Complexity science: The challenge of complexity in health care. BMJ: British Medical Journal 323, 625–628.

Plsek, P.E., Wilson, T., 2001. Complexity Science: Complexity, Leadership, And Management In Healthcare Organisations. BMJ 323, 746–749.

Porter, M.E., Lee, T.H., 2013. The Strategy That Will Fix Health Care. Harvard Business Review 91, 50–69.

Porter, M.E., Millar, V.E., 1985. How information gives you competitive advantage. Harvard Business Review 63, 149–160.

Porter, M.E., Teisberg, E.O., 2006. Redefining competition in health care. Harvard Business School Press, Boston.

Pugh, J., Mitchell, M., Brooks, F., 2000. Insider/outsider partnerships in an ethnographic study of shared governance. Nursing Standard 14, 43–44.

Radnor, Z.J., Holweg, M., Waring, J., 2012. Lean in healthcare: The unfilled promise? Social Science & Medicine 74, 364–371.

Reason, P., Bradbury, H., 2001. Handbook of action research. SAGE, London.

Reay, T., Hinings, C.R.R., 2009. Managing the Rivalry of Competing Institutional Logics. Organization Studies 30, 629–652.

Reed, J.E., Card, A.J., 2016. The problem with Plan-Do-Study-Act cycles. BMJ Quality & Safety 25, 147–152.

Reed, J.E., Howe, C., Doyle, C., Bell, D., 2018. Simple rules for evidence translation in complex systems: A qualitative study. BMC Medicine 16, 92.

Reed, J.E., Mcnicholas, C., Woodcock, T., Issen, L., Bell, D., 2014. Designing quality improvement initiatives: the action effect method, a structured approach to identifying and articulating programme theory. BMJ Quality & Safety 23, 1040–1048.

Richardson, K.A., 2008. Managing Complex Organizations: Complexity Thinking and the Science and Art of Management. E:CO 10, 13–26.

Roberts, K., Casey, M., Coghlan, D., Cornall, C., Hudson, C., Stokes, D., Carroll, A., 2021. A scoping review protocol to map the evidence on the use of action research methodology by healthcare professionals and in healthcare team settings. HRB Open Research 68, 1–9.

Roehrs, S., 2018. Building of profound knowledge. Current Problems in Pediatric and Adolescent Health Care 48, 196–197.

Rogers, E.M., 2003. Diffusion of Innovations, 5th ed. Free Press, New York.

Rohrbasser, A., Harris, J., Mickan, S., Tal, K., Wong, G., 2018. Quality circles for quality improvement in primary health care: Their origins, spread, effectiveness and lacunae– A scoping review. PLoS ONE 13.

Rosenthal, M.B., Frank, R.G., Li, Z., Ma, A.M., Epstein, M.A., 2005. Early Experience With Pay-for-Performance From Concept to Practice. JAMA 294, 1788–1793.

Røsstad, T., Garåsen, H., Steinsbekk, A., Sletvold, O., Grimsmo, A., 2013. Development of a patient-centred care pathway across healthcare providers: a qualitative study. BMC Health Services Research 13.

Roth, J., Shani, A.B., Leary, M.M., 2007. Insider action research: Facing the challenges of new capability development within a biopharma company. Action Research 5, 41–60.

Rouse, W., 2008. Health care as a complex adaptive system: implications for design and management. Bridge (Kans City) 38, 17–25.

Røvik, K.A., 2016. Knowledge Transfer as Translation: Review and Elements of an Instrumental Theory. International Journal of Management Reviews 18, 290–310.

Røvik, K.A., 2011. From Fashion to Virus: An Alternative Theory of Organizations' Handling of Management Ideas. Organization Studies 32, 631–653.

Røvik, K.A., 2008. Managementsamhället: Trender och ideér på 2000-talet. Liber, Malmö.

Rubenstein, L., Khodyakov, D., Hempel, S., Danz, M., Salem-schatz, S., Foy, R., O'neill, S., Dalal, S., Shekelle, P., 2014. How can we recognize continuous quality improvement? International Journal for Quality in Health Care 26, 6–15.

Sabadka, D., Molnár, V., Fedorko, G., 2019. Shortening of life cycle and complexity impact on the automotive industry. TEM Journal 8, 1295–1301.

Savage, C., Parke, L., von Knorring, M., Mazzocato, P., 2016. Does lean muddy the quality improvement waters? A qualitative study of how a hospital management team understands lean in the context of quality improvement. BMC Health Services Research.

Schein, E.H., 1985. Organizational culture and leadership: A dynamic view. Jossey Bass, San Fransisco, CA.

Schildt, H., Perkmann, M., 2017. Organizational Settlements: Theorizing How Organizations Respond to Institutional Complexity. Journal of Management Inquiry 26, 139–145.

Schroeder, R.G., Linderman, K., Liedtke, C., Choo, A.S., 2008. Six Sigma: Definition and underlying theory. Journal of Operations Management 26, 536–554.

Shani, A.B. (Rami), Coghlan, D., 2019. Action research in business and management: A reflective review. Action Research 1–24.

Shenton, A., 2004. Strategies for ensuring trustworthiness in qualitative research projects. Education for information 22, 63–75.

Shortell, S.M., Bennett, C.L., Byck, G.R., 1998. Assessing the Impact of Continuous Quality Improvement on Clinical Practice: What It Will Take to Accelerate Progress. The Milbank Quarterly 76, 593–624.

Siva, V., Gremyr, I., Halldórsson, Á., 2018. Organising sustainability competencies through quality management: Integration or specialisation. Sustainability (Switzerland) 10.

Smith, M., Saunders, R., Stuckhardt, L., Mcginnis, J.M., 2014. Best care at lower cost: the path to continuously learning health care in America, Choice Reviews Online.

Snowden, D.J., Boone, M.E., 2007. A Leader's Framework for Decision Making. Harvard Business Review 85, 68–76.

Socialdepartementet, 2014. Öppna jämförelser inom hälso- och sjukvården. Stockholm.

Socialstyrelsen, 2011. Ledningssystem för systematiskt kvalitetsarbete Socialstyrelsens författningssamling. Sweden.

Socialstyrelsen, 2009. Nationella kvalitetsindikatorer. Stockholm.

Sousa, R., Voss, C.A., 2002. Quality management re-visited: a reflective review and agenda for future research. Journal of Operations Management 20, 91–109.

Spell, C.S., 2001. Management Fashions: Where do they come from, and are they old wine in new bottles? Journal of Management Inquiry 10, 358–373.

Stabell, C.B., Fjeldstad, Ø.D., 1998. Configuring Value for Competitive Advantage: On Chains, Shops, and Networks. Strategic Management Journal 19, 413–437.

Staw, B.M., Epstein, L.D., 2000. What Bandwagons Bring: Effects of Popular Management Techniques on Corporate Performance, Reputation, and CEO Pay. Administrative Science Quarterly 45, 523.

Sterman, J.D., 2006. Learning from evidence in a complex world. American Journal of Public Health 96, 505–514.

Storkholm, M.H., 2018. Innovation inside the box: How contextual constraints can contribute to improvement in health care. Karolinska Institutet, Stockholm, Sweden.

Storkholm, M.H., Mazzocato, P., Savage, C., 2019. Make it complicated: A qualitative study utilizing a complexity framework to explain improvement in health care. BMC Health Services Research 19.

Storkholm, M.H., Mazzocato, P., Savage, M., Savage, C., 2017. Money's (not) on my mind: a qualitative study of how staff and managers understand health care's triple Aim. BMC Health Services Research 17, 1–9.

Strang, D., Soule, S.A., 1998. Diffusion In Organizations and Social Movements: From Hybrid Corn to Poison Pills. Annual Review of Sociology 24, 265–290.

Sweeney, J.C., Danaher, T.S., McColl-Kennedy, J.R., 2015. Customer Effort in Value Cocreation Activities: Improving Quality of Life and Behavioral Intentions of Health Care Customers. Journal of Service Research 18, 318–335.

Symon, G., Cassell, C., Johnson, P., 2018. Evaluative Practices in Qualitative Management Research: A Critical Review. International Journal of Management Reviews 20, 134–154.

Taner, M.T., Sezen, B., Antony, J., 2007. An overview of six sigma applications in healthcare industry. International Journal of Health Care Quality Assurance 20, 329–340.

Tarí, J.J., Sabater, V., 2004. Quality tools and techniques: Are they necessary for quality management? International Journal of Production Economics 92, 267–280.

Taylor, M.J., McNicholas, C., Nicolay, C., Darzi, A., Bell, D., Reed, J.E., 2014. Systematic review of the application of the plan–do–study–act method to improve quality in healthcare. BMJ Quality & Safety 23, 290–298.

Thompson, D.S., Fazio, X., Kustra, E., Patrick, L., Stanley, D., 2016. Scoping review of complexity theory in health services research. BMC Health Services Research 16.

Thompson, J.M., Buchbinder, S.B., Shanks, N.H., Kite, B.J., 2016. An overview of Health Care Management, in: Buchbinder, S., Shanks, N. (Eds.), Introduction to Health Care Management. Jones & Bartlett Learning, Burlington, MA, pp. 1–25.

Timmermans, S., Epstein, S., 2010. A World of Standards but not a Standard World: Toward a Sociology of Standards and Standardization. Annual Review of Sociology 36, 69–89.

Traberg, A., 2011. Management-By-Objectives in Healthcare. Citation. DTU Management.

Ulhassan, W., Sandahl, C., Westerlund, H., Henriksson, P., Bennermo, M., von Thiele Schwarz, U., Thor, J., 2013. Antecedents and characteristics of lean thinking implementation in a Swedish hospital: a case study. Qual Manag Health Care 22, 48–61.

van Allen, G.H., 1994. Failures of total quality management: Products of leadership and organizational culture. Community College Journal of Research and Practice 18, 381–390.

van de Ven, A.H., 2007. Engaged scholarship: A guide for organizational and social research. Oxford University Press, Oxford.

van der Wiele, T., van Iwaarden, J., Dale, B.G., Williams, R., 2006. A comparison of five modern improvement approaches. International Journal of Productivity and Quality Management 1, 363–378.

Waelli, M., Gomez, M.-L., Sicotte, C., Zicari, A., Bonnefond, J.-Y., Lorino, P., Minvielle, E., 2016. Keys to successful implementation of a French national quality indicator in health care organizations: a qualitative study. BMC Health Services Research 16, 553.

Wallis, S.E., 2009. The Complexity of Complexity Theory: An Innovative Analysis. E:CO 11, 26–38.

Walshe, K., 2009. Pseudoinnovation: The development and spread of healthcare quality improvement methodologies. International Journal for Quality in Health Care 21, 153–159.

Watson, G.H., 2018. What is the Impact of Profound Knowledge on Leadership and Strategy? The Journal for Quality & Participation 41, 24–25.

Wefald, A.J., Downey, R.G., 2009. Job engagement in organizations: Fad, fashion, or folderol? Journal of Organizational Behavior 30, 141–145.

Westphal, J.D., Gulati, R., Shortell, S.M., 1997. Customization or Conformity ? An Institutional and Network Perspective on the Content and Consequences of TQM Adoption. Administrative Science Quarterly 42, 366–394.

Whetten, D.A., 1989. What Constitutes a Theoretical Contribution? Academy of Management Review 14, 490–495.

Wikström, E., Dellve, L., 2009. Contemporary leadership in healthcare organizations: Fragmented or concurrent leadership. Journal of Health Organization and Management 23, 411–428.

Wynn, D.Jr., Williams, C.K., 2012. Principles for Conducting Critical Realist Case Study Research in Information Systems. MIS Quarterly 36, 787–810.

Yang, C.-C., 2003. The establishment of a TQM system for the health care industry. The TQM Magazine 15, 93–98.

Yin, R.K., 2009. Case study research: Design and Methods, 4th ed. SAGE Publications, Thousand Oaks, CA.

Zabada, C., Rivers, P.A., Munchus, G., 1998. Obstacles to the application of total quality management in healthcare organizations. Total Quality Management 9, 57–66.

Zeitz, G., Mittal, V., McAulay, B., 1999. Distinguishing Adoption and Entrenchment of Management Practices: A Framework for Analysis. Organization Studies 20, 741–776.