Distributed leadership as a tool for integrated health services

by

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"Every system is perfectly designed to get the result that it does."

William Edwards Deming

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Summary

Introduction

Because of increasing life expectancy and more elderly people living with multimorbidity, municipal healthcare organizations are searching for new ways of combining human and non-human resources to provide integrated care. Distributed leadership theories conceptualize leadership as a relational process where leadership can be enacted by anyone with the expertise or skills necessary to achieve the group's goals. With the promise of bringing together experts in solving complex problems, theories of distributed leadership are based on the premise that people outside of traditional leadership positions possess influence. Previous research findings indicate that distributed leadership can contribute to a culture of quality in health care by improving decision-making, performance, and organizational learning. However, research also suggest that the potential of distributed leadership is limited, as professional identities and regulations increase the likelihood of traditional or concentrated leadership.

The contribution of the thesis work consists of three articles using data collected from semi-structured interviews with general practitioners (GPs) and patients to explore a different perspective of distributed leadership in integrated care in a municipal setting.

Methodology

The research project “Leadership and technology for an integrated health service” was a multiple case study conducted in a semi-urban municipality in Western Norway (2019-2020). The case study consisted of twenty groups of three people who are in regular contact: the patient, the patient’s GP, and a home care nurse. Qualitative analysis of semi-structured interviews carried out with patients and GPs are used to answer the following research questions:

Article 1: What type of leadership actions do GPs adopt in the collaboration with other healthcare professionals and the patient in order to provide integrated care? Do these leadership actions contribute to distributed leadership? Can the collaboration between GPs, patients and other professionals be characterized as distributed leadership?

Article 2: How is the collaboration between patients and GPs experienced by patients? Does the collaboration between patients and GPs contribute to distributed leadership and enhance the patients' experience of integrated care?

Article 3: What are the ethical challenges for GPs taking part in distributed leadership processes in integrated care? How do they manage them?

Findings

Article 1 explores the leadership actions of GPs participating in integrated care. Are their collective work patterns considered distributed leadership? Do they contribute to integrated care? The results show that GPs contributed to distributed leadership when working in partnership with other health care personnel and patients to provide integrated care. GPs contribute to integrated care by facilitating cooperation with hospitals and other healthcare providers, creating continuity, and working to achieve a holistic focus in service provision. In addition, GPs secure internal coherence in collective work practices by monitoring and following up on work processes to ensure implementation and quality in healthcare provision. GPs achieve this primarily by participating in collective work processes that appear rule-based and preplanned, or what is known as institutionalized practices in distributed leadership. Less frequently, GPs are more involved in spontaneous collaborations characterized by physical meetings and relationship building. Findings show that spontaneous collaboration likely redirects the attention of

healthcare workers from the macro-context of organizational structures and medical culture to the micro-context and work process of creating a patient experience of integrated care.

Article 2 explores the experience of patients receiving integrated care. Findings show that these patients find it difficult to influence the collective process of care provision. The findings show that patients' lack of access to the collective work process is problematic if healthcare organizations aim to obtain the patient's perspective on the experience of integrated care. The second article also shows that the location of leadership is shifting and dependent on the patient's condition and situation; patients' leadership beliefs frequently attribute leadership and responsibility to physical meetings with healthcare providers and the healthcare provider initiating medical treatments or healthcare service. Furthermore, the study identifies that a strong separation of responsibility and division of work leads healthcare workers to restrict their commitment to a limited set of services.

Article 3 explores the experience of GPs and the ethical work they do when moving from the traditional face-to-face encounter with patients to collective work processes in the provision of integrated care. The findings demonstrate that GPs participate in knowledge transfer to support and build patient autonomy and that GPs aspire for their patients to be autonomous and self-managing as far and as long as possible. However, GPs vary in their approach to this task and in their attitudes to patient participation and involvement in healthcare provision. In general, GPs consider that they have an obligation for non-maleficence and to avoid harming their patients. Furthermore, findings show that GPs who are practicing the principle of distributive justice and take professional pride in solving problems single-handedly may limit their own or other healthcare providers' contribution to collective work processes and distributed leadership in integrated care. The findings also show that GPs experience ethical pluralism when involved in the collective provision of healthcare services. When GPs consult a patient face-to-face, they are

more likely to practice pragmatic clinical ethics. In contrast, in collective work practices, healthcare workers are more likely to adopt a universal clinical ethic.

Discussion

This research thesis explores and identifies how the distributed leadership configurations in integrated care are influenced by the actions of healthcare workers, their work practices, tools, macro-contextual factors, the ethical work of GPs and patients' leadership beliefs. Findings from Article 1 demonstrate that most distributed leadership practices are guided and steered by referencing frames of organizational macrostructures and medical culture. Article 3 provides further exploration and discussion of the medical culture and ethical work performed by GPs participating in the provision of integrated care. Similarly, Article 2 demonstrates that patients hold leadership beliefs that contribute to the factors affecting the distributed leadership configurations that emerge from the analysis of the data collected. It is most evident when GPs cultivate closer relationships and collaboration with patients and home care nurses that the collaborative provision of integrated care becomes more attentive to the micro-context of the relevant patient case and able to identify better solutions to hard-to-solve problems.

The discussion section of the thesis focuses on the potential contribution of distributed leadership in relation to continuity, coordination, and comprehensive service offerings in integrated care. Regarding the referencing frames of organizational macrostructures and medical culture identified in the study, the thesis discusses whether the primary bottlenecks for distributed leadership in integrated care are underdeveloped or underused digital tools and meeting spaces, or the organizational structures, culture and psychological mindsets influencing the collaborative work between healthcare professionals and patients.

While further development of digital tools may strengthen patient participation, the achievement of spontaneous collaboration may require real-time digital communication, patient coordinators, or meeting spaces to strengthen patient access and influence in integrated care. However, the standardized collective work patterns, or institutionalized practices, identified from the study imply that the collective work patterns are governed by referencing frames of organizational macrostructures and medical culture which shape the content and limit the flexibility of the distributed practice observed in the municipality. The informal and formal rules that contribute to the division of labor and a harmonious working climate observed in the municipality hinder the flow of knowledge, skills, power, and responsibility across organizational borders. Similarly, the research findings show that the patients' leadership beliefs and adherence to social norms limit their attempts to influence collective work processes in integrated care.

Equating the leadership beliefs of patients and the different ethical frameworks of healthcare workers to psychological mindsets, the discussion section concludes that the digital tools and physical meeting spaces used, their ability to capture and represent the context, and the psychological mindset employed in distributed leadership in integrated care are interrelated. Achieving synergistic effects of distributed leadership in integrated care will require researchers to identify methods that can merge the tools, resources and psychological mindsets used with the context and the situation without group composition or professional belongings undermining the distributed leadership practices that emerge.

Table of Contents

Acknowledgements iv

Summary vi

PART ONE 1

1 Introduction 3

1.1 The rational for integrated care in Norway 3

1.2 The potential of distributed leadership in integrated care 7

1.2.1 Key findings from research on distributed leadership 10

1.3 Aims of the thesis and research questions 17

2 Contextual background 21

2.1 The development of the Norwegian healthcare system 21

2.1.1 Healthcare reforms in Norway 22

2.2 Healthcare services in the municipalities 25

2.3 Leadership and technology for an integrated health service 27

3 Theory 29

3.1 Theories in distributed leadership 29

3.2 Theoretical models applied in the three articles 32

3.2.1 Gronns' theory of distributed leadership 32

3.2.2 The DAC Framework 36

3.2.3 The value-basis of the Norwegian healthcare system 38

3.3 Summary of the theoretical approaches used in the thesis work 42

4 Methods 45

4.1 Philosophical positioning 45

4.2 Research design 48

4.3 Research setting, recruitment, and choice of informants 49

4.4 Data collection 51

4.5 Data analysis 53

4.5.1 Data analysis in Article 1: The use of the Gioia methodology 54

4.5.2 Data analysis in Article 2 and Article 3: Thematic analysis 56

4.6 Ethics 58

4.7 Research quality 60

4.7.1 Credibility 60
4.7.2 Dependability 61
4.7.3 Transferability 62
4.7.4 Confirmability 63

5 Results 65
5.1 Article 1: General practitioners' perceptions of distributed leadership in providing integrated care for elderly chronic multi-morbid patients: a qualitative study 65
5.2 Article 2: A qualitative study on distributed leadership in integrated care: Exploring the experiences of elderly multimorbid patients with GP collaboration 66
5.3 Article 3: GPs' experience of ethical work in integrated care for older adults with multi-morbidity 69

6 Discussion 71
6.1 Overarching theme and connections between the articles in this thesis .. 72
6.2 How can distributed leadership contribute to integrated care? 80
6.2.1 Can distributed leadership contribute to continuity in integrated care? 81
6.2.2 Can distributed leadership contribute to coordination in integrated care? 87
6.2.3 Can distributed leadership contribute to comprehensiveness in integrated care? 96
6.2.4 Can distributed leadership contribute to solving complex problems in integrated care? 100
6.3 Main contributions and implications 110
6.4 Methodological limitations 115
6.5 Concluding remarks and future directions 119

7 References 123

Appendix: Recruitment materials (Translated from Norwegian) 147

PART TWO 153

Article I - III 155

PART ONE

1 Introduction

Due to demographic changes and increasing life expectancy, chronic healthcare conditions and multimorbidity have become the new normal for patients and healthcare professionals in high-income countries (Salisbury et al., 2011; Statistics Norway, 2020). Consequently, provision of healthcare service to elderly multimorbidity patients is a challenge in the developed world where budgetary constraints and shortages of healthcare personnel are the norm. To meet this challenge, healthcare organizations are seeking new ways of combining human and non-human resources to offer their patients the best possible healthcare services.

In this thesis, I use distributed leadership as a theoretical perspective to explore collective work patterns among healthcare workers in a municipality in Norway. The aim of the thesis is to investigate whether distributed leadership can contribute to integrated care for elderly patients with multimorbidity. Distributed leadership theories conceptualize leadership as a relational process where leadership can be enacted by anyone with the expertise or skills necessary to achieve the group's goals (Gronn, 2002; Spillane, 2005). Consequently, a distributed approach to leadership is more inclusive and less top-down than traditional leadership models. Distributed leadership is proposed as an alternative to traditional hierarchical leadership in environments where diverse expertise, shared accountability, and responsibility are required to solve problems that are too overwhelming for individual leaders (Bush, 2013).

1.1 The rational for integrated care in Norway

There is a need for integrated care in the municipality as increasing numbers of patients are living with multimorbidity and complex

healthcare conditions that require treatment and assistance from a range of healthcare personnel and social care services (Marengoni et al., 2011). In Norway, people aged 65 years or older, 15% of the population, account for almost 50% of the country's healthcare spending (Kalseth & Halvorsen, 2020). With the anticipated rise of the elderly population in Norway, the use of home care nursing services is projected to increase (Chang et al., 2023).

Recent Norwegian healthcare reforms recognize that healthcare organizations must strengthen their commitment to the provision of comprehensive and integrated healthcare services to patients with chronic healthcare conditions and multimorbidity (NMHCS, 2009). The contents of the coordination reform and national health and hospital plans (NMHCS, 2019), promoting a patient-centered approach and seamless integration of care across healthcare settings, align closely with the principles of integrated care described in the literature (Kodner & Spreeuwenberg, 2002). In the thesis I use integrated care as a framework to enhance our understanding of the collective provision of healthcare services to elderly people with multimorbidity in the municipality.

Integrated care is a patient-centered concept that focuses on collaboration and coordination among healthcare professionals and patients in healthcare service provision (Goodwin, 2016). Collaboration, coordination, and tailoring of healthcare services to the needs of individual patients is fundamental to integrated care (Goodwin, 2016). In practice, integrated care is characterized by effective communication, shared decision-making, and seamless care pathways adjusted to the patient's needs (MacAdam, 2008). I also understand integrated care in line with the four Cs: accessible contact, service coordination, comprehensiveness, and continuity of care (Starfield & Shi, 2002).

A literature review aligning with organizational and leadership research perspectives identified elements relevant to integrated care at all

organizational levels (Leijten et al., 2018). Regarding leadership and governance, the review recommended involving patients in shared decision-making and to focus on coordinating care services and individualized care plans at the micro level. At the meso-level, the review concluded that supportive leadership throughout all levels is important for successful interprofessional collaboration and a commitment to quality.

Demographic changes, increases in multimorbidity and rising demands for healthcare services are central premises for the thesis. One argument for distributed leadership in the healthcare and social care sector is that many problems facing these organizations are "wicked problems" (Rittel & Webber, 1973) left unsolved by their designated leaders (Currie & Lockett, 2011). Unlike “tame problems” for which recognized solutions work, wicked problems are recognized when suggested solutions either do not work or make those problems worse. The residual effects of wicked problems demanding ongoing attention and repeated solutions can be depicted as matrices, layers, or systems of factors that interact and influence social and human systems. The recognition of wicked problems stems from experience and acknowledgement of how social problems differ from technical and scientific problems (Skaburskis, 2008). Wicked problems are observed in healthcare, climate change, and global poverty, areas in which proposed solutions are ill-defined, subject to conflicting values and priorities, and can have unpredictable consequences.

While wicked problems are inherently unsolvable, researchers have called for a “necessary revolution” to establish collaboration across organizational boundaries and multi-level practices in integrated care settings characterized by wicked problems (Bolden et al., 2023; Thomas et al., 2018).

A review of the general leadership literature exploring how contextual factors shape leadership, supports the assumption that leadership does

not occur in a vacuum but rather within a multilayered and multifaceted context (Oc, 2018). This context consists of omnibus macro-level factors (where, when, and who) and discrete micro-level (task, social, physical, and temporal) factors.

Similarly, the healthcare context can be considered multidimensional and dynamic. Within the healthcare literature, healthcare has been perceived both as an objectively measurable reality and as a socially constructed, subjective phenomenon (Dopson et al., 2008). According to the review, healthcare contexts can be studied across levels and temporal dimensions. I understand the healthcare context as encompassing the arrangement of all intervening variables that make up the healthcare environment.

Norwegian healthcare reforms designed to improve integration and coordination (NMHCS, 2009, 2017, 2019) describe healthcare provision as less comprehensive, holistic, and patient-centered than advocated in the literature on integrated care. Despite this, integrated care is utilized as a conceptual framework to explore the potential role of distributed leadership in Norwegian healthcare. There are many definitions of integrated care (Kodner & Spreeuwenberg, 2002), and I use several of those definitions in this thesis. When taking an organizational healthcare management perspective, I define integrated care as "[t]he process that involves creating and maintaining, over time, a common structure between independent stakeholders (and organizations) for the purpose of coordinating their interdependence in order to enable them to work together on a collective project" (Contandriopoulos et al., 2004, p. 8). However, when exploring patients' experience of integrated care I define it as a situation where "I can plan my care with people who work together to understand me and my carer(s), allow me control, and bring together services to achieve the outcomes important to me" (Redding, 2013, p. 322).

1.2 The potential of distributed leadership in integrated care

To investigate whether collaboration between GPs and patients contributes to integrated care, this thesis uses distributed leadership as a theoretical concept to explore collective work patterns.

Theories of leadership have traditionally focused on leadership as a top-down process in which designated leaders instruct and provide direction for employees (Benmira & Agboola, 2021). However, modern organizations that depend on integrating competence and knowledge spread across organizations to solve complex problems have challenged this traditional understanding. Advocates of distributed leadership suggest that the responsibility for leadership should not be limited to an inner circle of individuals at the top of the organization. Instead, leadership should be allowed to appear anywhere in the organization to ensure that the right expertise is made available where and when it is required (Spillane et al., 2004). In the healthcare context, distributed leadership can be understood as the seamless transfer and integration of experts and knowledge across professions, organizations, and levels of healthcare. Distributed leadership can emerge spontaneously from the bottom up, through the initiative of individual workers. It can also combine bottom-up initiatives, traditional leaders and tools aligning the available expertise and resources from the top down (Harris, 2013). Despite various perspectives on how distributed leadership unfolds, this thesis treats distributed leadership as a social process emerging from a dynamic network of interactions among individuals, organizations, tools, and the situation itself (Gronn, 2002; Spillane, 2005).

Distributed leadership builds on assumptions that the first people to recognize a problem know where "the shoe is pinching" and are best positioned to solve the problem when supplied with the correct resources (Boydell et al., 2003). In essence, distributed leadership is about “gathering the collective around the table” and “unfolding the map” so

that the necessary knowledge, skills, and tools can be distributed among those best positioned to solve the problem (Chreim et al., 2013).

The assumptions that one can change between being a leader and a follower independent of formal position is in line with understanding that distributed leadership is about participation, delegation of responsibility and influence from those outside of traditional leadership positions (Bennett et al., 2003; Harris, 2003). However, normative conceptualizations of distributed leadership as a democratic and anti-hierarchical form of leadership were more prevalent in the first decade of the 2000s than today (Harris et al., 2022). Today's understanding of distributed leadership includes both formal and informal distributed leadership practices. Organizational needs for balancing (traditional) formal leadership and informal distributed leadership can be referred to as "hybrid leadership" (Gronn, 2009).

As distributed leadership is dynamic and the result of social practices, the study of distributed leadership implies a critical turn (Sutherland et al., 2022) from examining leadership as something designated leaders do to their followers, toward seeing leadership as something that emerges in the involved actors' social context. The study of distributed leadership requires researchers to explore leadership as a product of the interactions among individual, social, and environmental factors.

The study of distributed leadership is also an opportunity to unravel complex work processes, revealing how simpler patterns of social interaction can give rise to the emergence of unpredictable or complex social processes. Conversely, simple work patterns may be traced back to the interactions of complex components.

Gibb's (1954) *Handbook of Social Psychology* was the first discussion of distributed leadership. With a background in psychology, Gibb focused on the relationships between leaders and followers in leadership processes and concluded that leadership was most successful when

influence was aligned with the task and the designated leader was not excessiely influential. This finding led Gibb to distinguish headship, the exercise of formal leadership, from leadership, the ability to influence group processes that lead to task completion (Gibb, 1954). Gibb's work was followed by resarch by Gronn (2000) and Spillane (2004) who from the start of the 21st century revived interest in distributed leadership and argued that the focus of leadership research should shift from roles and functions to practices (Gronn, 2002; Spillane et al., 2004). The newfound attention to distributed leadership may be attributed to globalization and digitalization resulting in a growing number of businesses operating in multiple locations and time zones. Additionally, corporate governance failures led researchers to question the ethics and accountability of decision-making under traditional leadership models (Adler, 2002; Banks et al., 2021).

Arguments that traditional leadership theories have focused excessively on individual agency have stimulated the development of distributed leadership as a theoretical concept (Badaracco Jr, 2001; Bolden, 2011). Compared to the traditional heroic leadership theories, distributed leadership attends to leadership by focusing more on the organization itself and considering leadership to be more about the responsibility organizations have for making decisions and implementing these into practices that can foster collaboration and shared decision-making (McKee et al., 2013). Theories of distributed leadership incorporate the situation into the social processes that shape and guide the agency of the individual leader(s) contributing to collective work patterns in distributed leadership (Gronn, 2002). Contrasting traditional leadership theories which usually portray leadership as a linear process where single tasks are solved by the individual employee holding the relevant competence, distributed leadership theories recognizes that leadersship can emerge anywhere and emphasizes the interaction among and across individuals and organizations (Bennett et al., 2003).

In this thesis I use the concept of distributed leadership to explore and study collective work processes in the provision of integrated care.

1.2.1 Key findings from research on distributed leadership

The literature on distributed leadership falls into two overlapping streams: one stream of research focuses on the work patterns that emerge in distributed leadership (Gronn, 2002; Spillane, 2005), the other stream centers on the discussion of how leadership is distributed, which parts of leadership are distributed and who has the power to decide which parts of leadership are shared and which are distributed (Bolden, 2011).

Reports on collectivistic leadership in healthcare raise questions about how healthcare organizations can develop more adaptable and responsive leadership to realize the full potential of the competencies and expertise spread across modern healthcare organizations (M. A. West et al., 2014).

In a report on distributed leadership and change management in the UK National Health System, distributed leadership is suggested to be promising in industries and production that depend on a central core of adaptable high-skilled workers and a periphery of flexible low-skilled workers, as can be observed in the provision of advanced healthcare services (McIntosh & Layland, 2019). According to the report, cultural change and an environment more receptive to change will be required for healthcare organizations to develop and exploit the central core of expertise and the flexibility of the peripheral workforce.

A study by Gronn (2008) on distributed leadership in school districts identified support from formal leaders is essential and a willingness to share power as requirements of distributed leadership. Conversely, the study cited rigid hierarchies, unclear roles, and a lack of trust as

impediments to distributed leadership. Gronn suggests that leadership should be considered bound by context and that researchers should focus on relationships and interactions to capture the complexity, heterogeneity, and context-specific nature of distributed leadership (Gronn, 2002).

Similarly, Leithwood and Mascall (2009) have indicated that distributed leadership does not necessarily reduce the need for leadership as such. The study of distributed leadership in the education sector found that distributed leadership requires coordination to ensure that all efforts are directed to mutual goals. In the findings, the need for formal managers to have responsibility for developing leadership capacity and the leadership skills of other organizational members participating in leadership are discussed.

In a study of mental health services, Chreim et al. (2013) explored leadership within interprofessional teams as boundary work by researching leadership at the interface of multiple levels and team members. It found that team members exercised leadership at different levels and in different ways and concluded that boundary work was essential to effective leadership within the healthcare system. In addition, organizational members implemented different practices in boundary meetings. The practices could involve opening (expanding possibilities), closing (reinforcing existing boundaries), or challenging and adapting the boundaries (Chreim et al., 2013). What practice leaders or managers carry out could be influenced by how they and others in the organization experience and evaluate themselves and their team's role. Chreim et al. (2013) suggest that the boundaries are socially constructed through interactions, influenced both by local contexts and the broader macro environments. They argue that organizations should focus on leadership education and training that sensitizes prospective leaders to the nuances of organizational boundaries in healthcare.

Distributed leadership requires changes in and awareness of how formal and informal leaders behave and assert leadership (Leithwood & Mascall, 2009). In distributed leadership, traditional leaders must shift from exercising directive leadership into coordinating and monitoring to meet organizational needs of developing and coaching organizational members who traditionally have been followers.

A more recent review of distributed leadership in public organizations argued that distributed leadership is associated with job satisfaction, self-reported performance, and innovative behavior in public sector organizations (Jakobsen et al., 2023). However, the strengths of the associations partly rely on employee alignment with organizational goals and the capacity of employees to take on leadership responsibilities. The review suggests that employees' trust in their leaders, clarity of direction, and organizational rules all affect distributed leadership. The review recommends future research to explore the conditions under which distributed leadership has a positive impact on organizations and the degree to which distributed leadership may be contingent on other organizational factors. Empirical studies are recommended to investigate under which conditions distributed leadership flourishes and to improve the understanding of the interplay between distributed leadership and organizational factors (Jakobsen et al., 2023).

Previous research has shown that distributed leadership can contribute to a culture of quality in healthcare by improving decision-making, performance, and organizational learning (M. West et al., 2014). Additionally, M. West et al. (2014) identified that where patients and healthcare personnel have a voice, favorable patient outcomes can influence future actions and engagement in decision-making and contribute to a culture of continuous learning and quality improvement. Furthermore, studies have demonstrated a positive relationship between collective leadership, efficiency, and team performance (Aufegger et al., 2019; D'Innocenzo et al., 2016; De Brún et al., 2019; Nicolaides et al.,

2014; Wang et al., 2016), and that collective leadership is associated with patient satisfaction and improvements in quality and safety in healthcare (De Brún & McAuliffe, 2020). Research has also shown that distributed leadership can contribute to cost effectiveness (Okpala, 2018) and that adopting a distributed approach to leadership can have a positive impact on the work environment and job satisfaction of healthcare workers (Aufegger et al., 2019; De Brún et al., 2019).

In a large Scandinavian hospital, research demonstrated that traditional leaders could create an environment where employees feel confident and capable of taking on leadership roles (Günzel-Jensen et al., 2018). However, the study noticed that a high level of organizational efficiency undermines the perceived agency of individual employees in distributed leadership. This finding suggests that employees can feel less empowered to participate in leadership when they believe that the organization is already functioning effectively. Research in healthcare has shown an association between distributed leadership and service improvements (Fitzgerald et al., 2013). The effects of distributed leadership have been attributed to factors like empowerment, trust, teamwork, clearly defined roles, and well-defined objectives (Aufegger et al., 2019; De Brún et al., 2019). However, reviews call for more rigorous and consistent research in evaluating interventions aimed at developing collective leadership (De Brún et al., 2019) and conclude that attention and prioritization should be given to educational and developmental programs that can foster a distributed leadership approach among current and future leaders (Beirne, 2017).

In essence, research findings shows that the potential of distributed leadership in organizations is promising, but that introducing distributed leadership will require changes in organizational structure, processes, and culture. Concerning the stream of research discussing how leadership is distributed and who has the power to decide which parts of leadership are shared and distributed, a review by Bolden (2011)

indicates that the effectiveness of distributed leadership depends on the context in which distributed leadership is introduced, the characteristics of the organizational members, and the nature of the leadership tasks.

In their review, Currie and Lockett (2011) discusses distributed leadership in health and social care. They conclude that in the healthcare setting, policies and professional expectations are more likely to prioritize concentrated leadership due to the organizational hierarchical and a historical preference for expertise and accountability in decision-making.

Similarly, Beirne's (2017) review of distributed leadership and related collective leadership models concluded that healthcare professionals' various identities and perspectives can hinder the potential of distributed leadership in healthcare. Beirne's review suggests that front-line clinicians who do not hold formal leadership position are central drivers of changes and improvements in healthcare. In its discussion of barriers to distributed leadership, the review points to professional identities that can contribute to a silo mentality, turf battles and a lack of alignment between informal and formal leaders. Based on the findings (Beirne, 2017), it is concluded that leadership initiatives should be reoriented to focus on leadership as a collective process, and offer education and courses that can enable people who are not traditional managers, such as health workers without formal leadership training, to lead. While the study finds evidence for and sees potential for distributed leadership in healthcare and modernizing healthcare practices, it points to competing interpretations from different professional identities in healthcare as a limiting factor for distributed leadership. The review concludes that the practical implementation and the realization of the untapped potential from non-formal leaders are hindered by conflicting pressures within the healthcare sector. Most significant are the rigid organizational structures, hierarchical power dynamics and a lack of recognition of the potential in informal leadership roles (Beirne, 2017).

In a critical examination of distributed leadership, Jones (2014) examined the implementation of distributed leadership in higher education at an Australian university. He argues that distributed leadership will not necessarily contribute to a more collaborative environment; democratic decision-making will require mechanisms for open dialogue, power sharing and collective ownership of decisions. Organizations' need to reflect on what they hope to achieve by adopting distributed leadership. Careful implementation and institutional support will be necessary when introducing distributed leadership; the study finds no direct causal connection between distributed leadership and collaboration (Jones, 2014).

Buchanan et al. (2007) studied a development project in a hospital setting. Contrary to the suggestions that distributed leadership requires institutional support, they identified that the wider distribution of responsibilities seemed to have been prompted by the nature of the change objectives, the substance of the changes needed, and the network-based organizational structure of service delivery. The article's findings can serve as evidence that pure distributed leadership should not be too strongly guided or implemented from the top down. Instead, the findings suggest that organizations must provide change management and leadership training to staff beyond the central core of leaders to ensure that the right people with the right skills and expertise will contribute spontaneously when needed (Buchanan et al., 2007).

In a review of potential challenges for distributed leadership in healthcare in the NHS, Martin et al. (2015) pinpointed the complexities and disconnections that may arise in the implementation of distributed leadership in healthcare. The review establishes the presences of disconnects in power dynamics, physical distance, and value conflicts between organizational groups, suggesting that the disconnects are most easily observable between clinical and non-clinical leadership. It is argued that such disconnects can reinforce distances between

organizational groups. Disconnects can contribute to groups blaming others for organizational failures and shortcomings and can be understood as a form of institutional work, which maintains the status quo and protects the interests of individuals or groups in organizations. Based on these findings, healthcare organizations are recommended to address group disconnects by fostering open communication, collaboration, and mutual understanding (Martin et al., 2015). An important recommendation from this review is that organizations planning to implement distributed leadership must do so thoughtfully and avoid reinforcing existing power dynamics and narratives. Furthermore, healthcare organizations should work to avoid a tragic narrative by moving away from blame-shifting and embracing complex challenges.

Likewise, the review of distributed leadership in healthcare by Thorpe et al. (2011), aiming to explore the relevance of distributed leadership in healthcare by focusing on its emergence and implications regarding professional autonomy and managerial control, recommends healthcare organizations to enable professionals to exercise autonomy and make decisions within their scope of practice. The review argues that healthcare professionals should be empowered and enabled to participate in decision-making and share their expertise in shaping the policies and practices of organizations. The review discusses the importance of balancing professional autonomy and managerial control to empower practitioners to contribute to leadership and help realize the potential of distributed leadership to deliver high-quality patient care (Thorpe et al., 2011).

While research on distributed leadership is more limited than in more established research fields, the foregoing discussion of literature reveals a growing body of research from the healthcare and educational sectors, suggesting that findings may be applicable across both. The studies reviewed above include examples of both qualitative and quantitative

research. The Norwegian healthcare authorities have not introduced distributed leadership as a formal leadership model, but in this thesis, I explore if distributed leadership is present in integrated care. The thesis builds on interviews with patients and GPs to explore whether the work patterns of the healthcare workers and patients participating in the study can be considered distributed leadership and as contributing to integrated care.

Distributed leadership brings new perspectives to the study of the complex challenges and interactions in integrated care. This PhD thesis consists of three articles that explore different aspects of this topic.

1.3 Aims of the thesis and research questions

This thesis focuses on the lived experiences of 20 patients and their GPs with integrated care in a Norwegian municipality. Toward this end, it explores the potential contribution of a distributed leadership perspective to integrated care and ethical practices in the provision of integrated care. This thesis therefore explores how distributed leadership is experienced by healthcare professionals who provide integrated care and the patients who receive it. Based on these objectives, the thesis poses the following research questions:

1. What type of leadership actions do GPs adopt in the collaboration with other health care professionals and the patient in order to provide IC? Do these leadership actions contribute to distributed leadership? Can the collaboration between GPs, patients and other professionals be characterized as distributed leadership?

2. How is the collaboration between patients and GPs experienced by patients? Does the collaboration between patients and GPs

contribute to distributed leadership and enhance the patients' experience of integrated care?

3. What are the ethical challenges for GPs taking part in distributed leadership processes in integrated care? How do they manage them?

The first article explores the work patterns emerging from collaborative work among healthcare professionals providing integrated care for elderly multimorbid patients in the municipality. By using Gioia's methodology (Gioia et al., 2013), the article applies a process perspective to its exploration of GPs' leadership activities when caring for elderly multimorbid patients. It explores whether the leadership configurations identified here can be considered distributed leadership and as contributing to integrated care.

The second article investigates the experiences of elderly multimorbid patients receiving integrated care in their homes. The findings are analyzed with the help of the Direction, Alignment and Commitment (DAC) framework (Drath et al., 2008). Using the DAC framework, the researcher can analyze group leadership practices across "levels of analysis" regardless of whether DAC outcomes are produced by individuals, organizations or the tools utilized.

The third article studies distributed leadership from the perspective of clinical ethics. It explores GPs' ethical work as they move from the traditional face-to-face encounter with patients to collective work processes.

The structure of this thesis is presented below.

Part 1

Chapter 1 introduces the background, motivation, and overarching aims of the thesis.

Chapter 2 presents the contextual background of the PhD thesis.

Chapter 3 describes the theoretical framework for the articles.

Chapter 4 outlines the methodological framework used in the thesis.

Chapter 5 explains the results of the three articles.

Chapter 6 discusses the results from the three articles and their implications.

Part 2

Article I:

Braut, H., Øygarden, O., Storm, M., & Mikkelsen, A. (2022). General practitioners' perceptions of distributed leadership in providing integrated care for elderly chronic multi-morbid patients: A qualitative study. *BMC Health Services Research*, *22*(1), 1-12.

Article II:

Braut, H., Storm, M., & Mikkelsen, A. (2023). A qualitative study on distributed leadership in integrated care: exploring the experiences of elderly multimorbid patients with GP collaboration. *Journal of Multidisciplinary Healthcare*, 3167-3177.

Article III:

Braut, H., Storm, M., & Mikkelsen, A. (2023). GPs' experience of ethical work in integrated care for older adults with multimorbidity. Manuscript submitted to *Scandinavian Journal of Caring Sciences*.

2 Contextual background

2.1 The development of the Norwegian healthcare system

Since the 1970s, welfare states have made efforts to integrate healthcare services to enhance quality and reduce costs. There are two related reasons for these efforts: increasing life expectancy and a growing number of people living with chronic diseases (Naghavi et al., 2017; Wang et al., 2016). With respect to the care of the elderly, many reforms in high-income countries have focused on replacing expensive hospital beds with combinations of preventive care, primary healthcare and social services.

From an organizational perspective, the development of the Norwegian healthcare system has followed other European countries with a shift from traditional public administration to new public management (NPM). In Norway, this shift was motivated by the argument that healthcare systems had become overly bureaucratic and under-managed (Byrkjeflot, 2016), and by the recognition that higher healthcare expenses during the 1980s and 1990s had not resulted in increased production in the healthcare system.

Motivated by the interest in waste reduction (Hood, 1991) NPM reforms in Norway were accompanied by market mechanisms designed to improve the productivity of the Norwegian healthcare system (Tingvoll et al., 2016). However, due to beliefs that control systems result in more efficient service provision, NPM reforms in Norway came with increasing non-financial and financial performance measurement. Hence, NPM reforms in the Norwegian healthcare system have been associated with scientific management and criticized for negatively affecting the working environment of healthcare personnel (Day & Klein, 1987). It has also been argued that NPM reforms fostered single-purpose organizations (Christensen & Lægreid, 2007) operating

efficiently only for a narrow scope of healthcare services. This may have been partially responsible for service fragmentation and a requirement for healthcare organizations to break down professional silos and promote the coming together of diverse healthcare expertise in healthcare service provision (NMHCS, 2009).

NPM's elements of choice, competition, and other businesslike logics may have led healthcare organizations to focus on standardization and efficiency rather than effectiveness in service provision. Stories of service users complaining that they were being treated like numbers and not as people are common in the media, and a solid body of research shows that the active participation of service users is essential for the success of service production (Batalden et al., 2016; Brudney & England, 1983; Parks et al., 1981).

2.1.1 Healthcare reforms in Norway

The proportion of the national budget allocated to health expenditure in Norway was $7771 per capita compared to the OECD average of $4986 in 2023 (OECD, 2023b). Despite a recent decline in its spending on healthcare to a 7.9% share of GDP, Norway's spending on healthcare has traditionally ranked among the highest in the OECD (OECD, 2022). Cost projections are associated with uncertainty due to inflation and economic fluctuations. However, Norwegian healthcare expenditure per capita is now projected to increase until 2030 (Lorenzoni et al., 2019). Furthermore, the scarcity of healthcare personnel is a challenge in the Norwegian healthcare system (NMHCS, 2019) where digitalization is progressing more slowly than in other sectors. In Norway, underdeveloped digital tools have been linked to poor communication between the primary and specialist healthcare sectors (NMHCS, 2017).

Healthcare reforms have aimed to reduce costs and improve quality (NMHCS, 2009, 2019), allocating a higher proportion of healthcare spending to preventive care (NMHCS, 2011) and assigning more of the

responsibility for preventive healthcare, treatment of patients and care services to the local community (NMHCS, 2009). While problems and challenges in communication between hospitals were identified in the 1990s, it was not until the 2005 white paper "From piecemeal to whole – an integrated health service" that collaboration was put on the agenda in the Norwegian healthcare system (NMHCS, 2005). This report and the 2012 Norwegian coordination reform (NMHCS, 2009) were based on acknowledgments that collaboration and coordination are crucial in the provision of health and social care services to patients living with multiple, chronic or complex healthcare conditions (Oxman et al., 2008).

Norwegian healthcare reforms have sought to reduce overall costs and improve the quality of the Norwegian healthcare system by strengthening the role of preventive and primary healthcare, improving collaboration and coordination, and reducing hospital admissions (NMHCS, 2009, 2019). Later evaluations and white papers have reinforced the ambitions of previous reforms and outlined further ambitions of improved collaboration and coordination in healthcare. Norway's healthcare reforms are designed to bring healthcare services closer to where the patient lives and engage the patient in the provision of healthcare services (NMHCS, 2015, 2017, 2019). In all recent healthcare reforms and regulations, the patients are secured user involvement and healthcare professionals are expected to coordinate the activities and collaborate with each other and the patient. Thus, the main characteristics of integrated care and distributed leadership are present in Norwegian healthcare reforms and regulations.

The coordination reform implemented in 2012 was in accordance with the Norwegian Municipal Health and Care Services Act (2011) stating that healthcare services are to be experienced as comprehensive and coordinated by the individual patient or user. Furthermore, the Act states that municipal health and care services must cooperate with other providers to provide the patient or user with a comprehensive and coordinated service offering. Regulations stating that the municipalities

must enter into cooperation agreements with the regional health authorities or hospital trusts, alone or with other municipalities, is a central provision in the legislation (The Municipal Health and Care Services Act, 2011). Concerning the healthcare service offering, the Act stipulates that healthcare personnel covered by the Act must provide the specialist healthcare services with advice, guidance, and information on the user's health conditions necessary for the specialist healthcare services to fulfill their mission. The Act also states that healthcare providers who acquire patient healthcare records and information systems must consider the need for effective electronic communication. Similarly, the Specialist Health Services Act of 1999 requires healthcare trusts to enter into collaboration agreements with health authorities, including municipalities, to ensure necessary cooperation.

Consequently, distributed leadership is relevant to Norwegian healthcare organizations where health and social care legislation and reforms hold objectives of comprehensive healthcare services characterized by collaboration, local development and provision (NMHCS, 2017, 2019).

Norwegian healthcare reforms have avoided major organizational restructuring, primarily by modifying regulatory frameworks and funding models stimulating collaboration among organization involved in healthcare service provision. Because primary care is governed and funded at the municipality level and specialist care at the national level, this fragmentation of primary and specialist healthcare has been considered a significant challenge to the Norwegian healthcare system. To illustrate, the funding and investment in infrastructure and equipment in healthcare organizations are initiatives that require an overarching organizational strategy in integrated care (Kaehne et al., 2017; Mur-Veeman et al., 1999; Tenbensel, 2008). Norway’s sparse and scattered population and its many municipalities likely explain some of the organizational separation and built-in tension between the aims and values of the national standardization and local self-governance in Norwegian healthcare. As a result, top-down target-driven management

of Norwegian healthcare organizations coexists with expectations of bottom-up involvement by employees and service users (Cappelen et al., 2020). To achieve successful collaboration between users and providers in a local context, research has shown that it is necessary to reconcile top-down and bottom-up perspectives and needs (Huby et al., 2018; Kaehne et al., 2017). In conclusion, real-life experience and discussions in the literature show that leadership is necessary at both higher organizational and lower operational levels to achieve collaboration, coordination, and strategic direction in the healthcare context (Currie & Lockett, 2011; Gilmartin & D'Aunno, 2007).

2.2 Healthcare services in the municipalities

In Norwegian municipalities, GPs are responsible for providing primary care. They play a crucial role in the assessments of patients, diagnosing and treating a wide range of medical conditions and acting as gatekeepers for specialist healthcare services (Saunes et al., 2020). Most GPs enter into agreements with the municipality where the GPs receive a basic grant from the municipality based on the number of enrolled patients. The average patient list for a GP in Norway has 1,200 names (Halvorsen et al., 2013). GPs also provide care to residents in long-term nursing homes and visitors to the municipality emergency rooms that are available for patients with acute healthcare needs outside GP office hours (from 0800 to 1500) (Saunes et al., 2020). In the municipality, home care and nursing services can visit patients several times during the day and at night if necessary (Saunes et al., 2020).

In line with recent Norwegian healthcare reforms, the design of the municipality healthcare service offering has undergone significant developments in the last decade. Municipality acute wards providing short-term care for patients diagnosed with acute medical conditions and healthcare teams providing bundles of services have been established in Norwegian municipalities. While dementia care teams are in greatest demand among the elderly, other services in the municipality focus on

mental healthcare and substance abuse treatment. In Norway, rehabilitation services can be found both within the specialist healthcare service and in the municipality (Saunes et al., 2020).

Most of the Norwegian healthcare services are financed at the national level. However, the municipalities are responsible for planning, organizing, financing and operating all healthcare services outside hospitals (Halvorsen et al., 2013).

There are 20 hospital trusts in Norway and 96% of all hospital beds are publicly funded. Norwegian hospitals are considered to have high occupancy with limited remaining capacity (Saunes et al., 2020).

Even though Norway has one of Europe's highest coverage rates of health personnel, with 4.7 doctors and 17.7 nurses per 1,000 inhabitants (Saunes et al., 2020) the personnel situation is expected to become a challenge in the Norwegian healthcare sector.

There have been significant changes in the Norwegian healthcare system and the service offered to users in the municipalities, and further development and changes are expected. In 2023, the healthcare personnel commissions presented their report on the outlook for the Norwegian healthcare system and its most important resource: people (NMHCS, 2023). The report points to an already strong growth in healthcare workforce as a challenge and argues that the personnel requirements of the healthcare sector will ultimately drain the competence and expertise required by other Norwegian business sectors in coming years.

In 2021, 15% of the Norwegian workforce was employed in the healthcare sector, a threefold increase since the 1970s (NMHCS, 2023). The provision of advanced services of high quality around the clock in multiple locations likely explains the paradoxical shortage of healthcare personnel experienced by Norwegian healthcare organizations. Furthermore, the report expects future growth in healthcare personnel to

be highest in the municipality healthcare services because of healthcare reforms' aims of continuing to develop municipal healthcare services. The healthcare personnel report points to the need for prioritization. It predicts that the future will pose challenges concerning limiting choice and service offerings in a population with high user expectations and a widening gap between what is possible and the services available. Beyond the need to discuss prioritization and reductions in the supply of less essential services in the future, the report discusses possibilities regarding the organization of healthcare services, work division, work hours, and working conditions. Changes in healthcare workers' education and competence, as well as further digitalization, are more radical opportunities in the future development of healthcare service provision in Norway (NMHCS, 2023).

2.3 Leadership and technology for an integrated health service

The research project "Leadership and technology for an integrated health service" (2019-2020) was conducted in collaboration with my fellow PhD students Guro Hognestad Haaland at the University of Stavanger Business School and Hilde Marie Hunsbedt Fjellså in the Faculty of Health Sciences at the University of Stavanger. The development and implementation of the research project were supported by the University of Stavanger and supervised by Professor Aslaug Mikkelsen and Professor Marianne Storm.

The research project was a multiple case study consisting of 20 groups of three people: a patient, the home care nurse best acquainted with that patient, and the GP. After contacting the municipality's chief medical officer and the director of the municipality's health and social care services, patients were recruited by the GPs in the municipality or by nurses working in that municipality's acute ward. After a patient had been recruited, the home care nurse who was most familiar with that patient was contacted and recruited. All 20 of the groups belonged to the

same environment of integrated care provision in the municipality. However, every case is different; the unique experience of every patient and healthcare worker offers an opportunity to enhance our knowledge of distributed leadership in integrated care. The research project is therefore considered a multiple case study. Although the research project included home care nurses, this PhD thesis builds on interviews conducted with patients and GPs.

The overall purpose of the larger research project was:

> A: To identify critical factors for creating or maintaining an integrated healthcare service, and explore how patients, doctors and home care nurses interact to improve the healthcare service of the individual patient.
>
> B: To show how current e-health technologies prevent or contribute to interaction and collaboration in integrated care.
>
> C: To study if and how reflection on integrated care can change healthcare professionals' perspective on their responsibilities in achieving integrated healthcare service, and to study how home care nurses reflect on their careers and can contribute to an integrated healthcare service.

Employing semi-structured interviews collected in this research project and quantitative data from an earlier research project, Guro Hognestad Haaland researched how different factors influence nurses' career decisions, specifically how these factors affect nurses' career choices, such as accepting a leadership position or leaving the profession. Hilde Marie Hunsbedt Fjellså explored participation and e-health use in care coordination for multimorbid older adults living at home. This PhD thesis is the results of the interviews collected from the GPs and patients included in the research project.

3 Theory

3.1 Theories in distributed leadership

The research literature contains no single, universally accepted definition of distributed leadership. However, there is a variety of understandings and conceptualizations in the research literature. A review of the literature described *distributed leadership* as a situation where a) people take action to pool their initiative, competence and influence; b) people at different organizational levels are included; and c) varied perspectives, expertise and skills are utilized to achieve reciprocal trust and influence (Bennett et al., 2003).

Gronn (2000), drawing upon Gibb (1954), considers influence a component of traditional definitions of leadership that might not be expressed in ways readily apparent to the researcher. In traditional leadership, the researcher observes or surveys the influence of leaders in specific positions. In distributed leadership, influence and leadership activities do not follow a formal position and can reside in a collective's history, traditions, culture, members, organizational structures or other locations. As a result, distributed leadership is a fluid and emergent property that can wander between or stretch across individuals and organizations, possibly becoming more strongly related to the situation or the tools in use than to the individuals involved.

Gronn (2000), an expert in socially distributed activity theory, has developed a descriptive methodology of configurations of collective work patterns that can be used to illustrate how leadership moves between people interacting in distributed leadership (Gronn, 2000). According to Gronn, there are three configurations of distributed leadership: spontaneous collaboration, intuitive working, and institutionalized practices. In spontaneous collaboration, worker interaction is informal and unplanned, possibly fostering innovation and

new knowledge. In the second configuration, intuitive working, collaborative work is guided by unspoken rules and understandings established among workers. Lastly, instutitonalized practices are work patterns guided by the collective's formal rules, procedures, and structures.

In Spillane's conceptualization, distributed leadership emerges "in between" (Spillane, 2005, p. 16) the interaction of leaders, followers, and the situation. According to Spillane, researchers must unpack the "in between" as the situation is not only the context within which leadership plays out but also a defining element of the practices that emerge from the interaction of the situation, leaders, and followers over time.

Spillane (2005) described collective, collaborative, and coordinated forms of distribution. In collective distribution, the distribution of work is informal and performed separately but depends on the work accomplished by other workers. Collective distribution can be observed in the assembly of appliances. In the more structured coordinated distribution, the work performed is comparable to a relay race where work follows a sequence; subsequent stages require the completion of tasks in the previous ones. Lastly, collaborative distribution stands between collective and coordinated distribution. Here, interaction between individuals takes place in the same place and time, so leadership is shared among two or more workers. Meetings held in the workplace or participation in a dance or basketball game are examples (Spillane, 2005).

Spillane (2005) distinguished different people and dimensions in distributed leadership. Spillane presents these interdependent interactions as reciprocal, pooled, or sequential. In reciprocal interdependencies, an individual's activities require input from others. In pooled activities, the work of individuals either shares resources or produces outcomes. Lastly, sequential activities are described as work

activities depend on the activities of others for completion. Additionally, Spillane describes *heedful leadership* as situations where the "group have a sense of themselves as an ensemble or collective" and the members of the collective think of their actions in terms of other members of the group. Examples of heedful leadership are found in high-risk environments like the airline industry. Research has shown that flight deck operators develop more advanced aggregate mental processes than do employees in businesses concerned with efficiency (Weick & Roberts, 1993). Continuous operational reliability in high-risk environments depends on the systems of norms and practices that are shaped and located not only in the single individual but also in the interaction among individuals and the wider social system. Building on theoretical work in the educational sector where distributed leadership originated (Bolden, 2011; Gronn, 2002; Spillane, 2005), theories have been adapted to the health and social care sector (Currie & Lockett, 2011).

While acknowledging the various conceptualizations of distributed leadership, the thesis draws primarily upon Gronn's conceptualization to explore the collaboration among patients and GPs in providing integrated care. This decision was informed by observations that Gronn's conceptualization of distributed leadership has been adopted in research on the health and social care sector (Currie & Lockett, 2011). The ability to use leadership configurations to describe collective work patterns across organizational borders made Gronn's conceptualization of distributed leadership particularly well-suited for this thesis, which explored the collaboration between patients and their GPs providing integrated care.

3.2 Theoretical models applied in the three articles

The following section provides a closer examination of the theory for the three articles included in the thesis. In the first article I apply Gronns' approach to distributed leadership (Gronn, 2002). In Article 2, I use the DAC framework (Drath et al., 2008) as a holistic lens. The framework focuses on the collective ability to produce direction, alignment, and commitment at the aggregate group level, thereby enabling leadership analysis across levels of individuals, professions and organizations. Article 3 explores the experience and ethical work of GPs participating in collective work practices. Values and ethics central to the Norwegian healthcare system and findings from research exploring ethics as a collective practice are presented at the end of this section.

3.2.1 Gronns' theory of distributed leadership

The first article examines the leadership actions GPs take when collaborating with patients and healthcare professionals in the municipality setting. The study applies Gronns' theoretical approach to distributed leadership (Gronn, 2002) to explore if and how GPs take leadership and how GP's leadership is aligned to the role of other healthcare workers and patients and can be understood as distributed leadership.

Gronn argues that leadership is not what leaders know or do; instead, it is evident in leaders' many interactions. Distributed practices stretch over social and situational contexts (Gronn, 2002; Spillane et al., 1999). Gronn separates uncoordinated additive actions (numerical actions) from patterns of coordinated actions (concertive actions). Within the group of coordinated actions there are three configurations or patterns of concertive actions: spontaneous collaboration, intuitive working relations, and institutionalized practices.

Spontaneous collaboration is a type of leadership distribution observed when two or more people with different skills and characteristics work together to solve a problem. Such short-term collaboration can be limited to individual problems and tasks; it can also be fertile ground for further collaboration that might evolve into routines (Gronn, 2002).

Intuitive working relations is a distributed practice that can be observed where two or more individuals form a joint working unit. Within this configuration, a shared understanding and an implicit framework frequently guide the work. Furthermore, leadership frequently appears to be shared between people who recognize each other as co-leaders. Intuitive working relations is a configuration of distributed leadership that depends on mutual trust due to overlapping responsibilities. Sometimes intuitive working relations can develop into closer working relationship where work partners have an intuitive understanding of each other and the ability to leverage each other's skills and abilities (Gronn, 2002).

Institutionalized practice is Gronn's third configuration of concertive actions. This formalized or institutionalized practice is most frequently observed where there exists a need to formalize cooperation or where there is an attempt to formalize previously informal cooperation. According to Gronn, the formal leader of such groups may be "first among equals" (Gronn, 2002). However, in practice, formal leaders may take part in collaborative work without carrying out organizational objectives in distributed leadership (Gronn, 2002).

Similar to Spillane's description of heedful leadership (Weick & Roberts, 1993), Gronn denotes the existence of conjoint agency for the three configurations of distributed leadership. Conjoint agency is best described as a "shared mind," a psychological bond and relationship between collaborators. Where there is conjoint agency, the various actors will synchronize their actions to uphold their own and their partners' objectives (Gronn, 2002). Thus, a conjoint agency or "shared mind"

strengthens the collective's pursuit of mutual objectives. Where individuals are inattentive to the way in which their actions are interrelated with those of other organizational members' contributions to aggregate practice, the coherence of the organization can be weakened.

Following Gronn, at least two processes contribute to conjoint agency and to the group's development and function. Firstly, an internal synergy emerges as units in the group request and "call out" the skills and knowledge of other group members (Gronn, 2002). This elicits the strength and capabilities of individual units so that the group utilizes them more effectively. The second process, reciprocal influence, is similar to internal synergy; in this process, a spiral develops among the members of a collective: A may influence B and C, then B and C influence A. Over time, this spiral can contribute to a sustained accumulation of mutual influence within the group and in the external environment of the group among organizational peers. Reciprocal influence helps strengthen the group’s cohesion and competence. Together, internal synergy and reciprocal influence can become positive feedback loops that contribute to synergistic effects, group cohesion, and effectiveness in collective work patterns.

Currie and Locekett (2011) categorize research on distributed leadership in health- and social care along the two dimensions of concertive action and conjoint agency. Accordingly, distributed leadership and other leadership theories are illustrated along the axis of conjoint/not conjoint agency and concertive/not concertive actions in Figure 1.

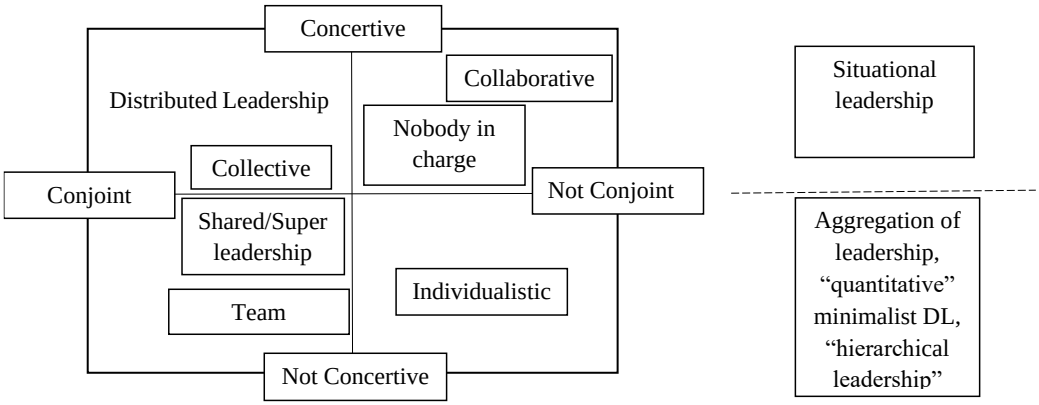

Figure 1: Leadership configurations resembling distributed leadership (Currie & Lockett, 2011, p. 288).

Following Currie and Lockett (2011), pure distributed leadership and collective leadership are in the upper left quadrant. Collaborative leadership and "nobody in charge" constellations are in the upper right quadrant. Shared leadership and team leadership are in the lower left quadrant. Finally, individualist leadership is in the lower right quadrant.

When organizations are in the upper left quadrant (Fig. 1), they operate with the right employees under favorable organizational conditions so that both concertive action and conjoint agency are the result. In the upper right quadrant, individual employees or the organization are preoccupied with their own goals, creating a silo mentality. In the lower left quadrant, successful teams can be established, but employees still depend on individual leaders. The theoretical framework and perspective on distributed leadership presented above and in Figure 1 suggest that it is possible to steer the leadership style of organizations in the preferred direction.

Corresponding to these explanations, aggregate forms of leadership in the two lower quadrants correspond to what Gronn terms "minimalist

distributed leadership" (Gronn, 2002) and Spillane as the "leader-plus aspect" (Spillane, 2005). As leadership is shared between individuals there may be delegation of tasks, shared responsibility, and synergies in "minimalist distributed leadership" and "leader-plus." However, in the upper left quadrant of distributed leadership, concerted action arises spontaneously from the situation. Lastly, concertive action and conjoint agency are considered complementary in distributed leadership (Currie & Lockett, 2011). A lack of concertive action results in leadership with less synergy and reciprocal influence (e.g., "leader-plus" or "minimalist distributed leadership"), and a lack of conjoint agency results in leadership with less synergy and fewer mutual decisions (Currie & Lockett, 2011).

3.2.2 The DAC Framework

The second article examines patients' experience of collaborating with GPs and other healthcare professionals in integrated care. The article uses the DAC framework to explore the ability of the collective of healthcare workers and patients to contribute to leadership at the group level (Drath et al., 2008).

There are many definitions of leadership (Stogdill, 1974). However, according to Bennis (2007), most leadership theories fit into the tripod of leaders, followers, and their common goal (Bennis, 2007).

With this ontology of leadership as a starting point, Drath et al. (2008) argue that leadership within a collaborative context can be classified according to three outcomes: direction, alignment, and commitment (DAC). When employing the DAC framework, the researcher focuses on collective and distributed aspects of direction, alignment, and commitment, not on the individual agency of leaders and followers.

The DAC framework views leadership through a holistic lens. It has gradually become accepted as an approach to evaluating leadership in

research and practice by offering an opportunity to study group leadership from a holistic perspective. The assumption that an effective group generates direction, alignment, and commitment is essential to the DAC framework. Where there is direction, there is agreement concerning the group's goal statements and a shared perception and understanding of what success looks like for the group (Drath et al., 2008). In groups with alignment, the group members' different expertise, roles and tasks are well coordinated. Lastly, in groups with commitment, the members of the group take responsibility for the group's success, knowing that other members of the group feel the same. This means that the group's members trust each other and will support the group even in difficult periods. The DAC framework can be employed to analyze group collaboration by assessing its current levels of direction, alignment, and commitment. After this step, the framework can be used to identify factors that can be improved to promote DAC practices. However, it is not unusual for interventions that strengthen one DAC component to weaken others (Drath et al., 2008).

The DAC framework is pragmatic and functional, shifting the focus from the individual leader to real-life outcomes. By being holistic and focusing on "the whole," the model makes it possible to study how the group achieves its goals, whether individuals, organizations or other factors contribute to goal achievement. This is beneficial when exploring work processes, organizational structures, and culture in distributed leadership and integration across levels (Drath et al., 2008).

Article 2 explored collaborative work among healthcare providers and patients in integrated care. The DAC framework was chosen as the theoretical lens to explore leadership as a group-level process. Concerning integrated care, the DAC framework can be used to investigate whether patients and healthcare personnel can influence and hold common goals as part of direction setting. When exploring alignment, the DAC framework can assist in investigating which practices and tools are available in integrated care and whether they

enable group members to contribute to alignment by prioritizing collectively held goals, potentially at the expense of privately held ones. Lastly, the mapping of commitment includes assessing the extent to which sufficient time and resources, and the culture, values, and attitudes of the group members, lead the collective to prioritize and encourage collaboration at the group level in integrated care. As direction, alignment, and commitment are interrelated, the DAC framework is less suitable for assessing overall or differentiated causation between the various subordinate factors of the aggregate and the resulting DAC outcome. Consequently, the DAC framework enables the exploration of leadership as a group-level process. However, it may not be suitable for studying the relational aspects sometimes considered essential in distributed leadership.

Beliefs are a central component of the DAC framework, which builds on the assumption that participant in collaborative work hold opinions and beliefs on how to produce DAC and make distributed leadership possible. The beliefs are shaped by an individual's interaction with others, cultural similarity, and affinity (Drath et al., 2008). From a DAC perspective, distributed leadership practices are produced, reproduced, and developed in ongoing interactions between people with different degrees of power, authority, and belonging in the collective. DAC practices result from an underlying iterative process where individual and collective beliefs about how to produce DAC reshape DAC practices and outcomes (Drath et al., 2008).

3.2.3 The value-basis of the Norwegian healthcare system

The third article uses the ancient medical ethical principles guiding healthcare professionals as a framework to explore the experience of GPs participating in collective work processes characterized by distributed leadership. As clinical ethics permeates all medical decision-making in meetings between healthcare professional and patients (Beauchamp &

Childress, 2001) the aim of the third article was to explore how a shift from face-to-face meetings between patients and healthcare professionals to collective work processes may be influenced by GPs' perception and practice of clinical ethics.

In recent decades, reforms in the Norwegian healthcare system have led to many new regulations. The increasing need for reporting and control within the healthcare system have also increased the need for audits by GPs in the primary care setting. Simultaneously, professional development has accelerated, resulting in a continuous flow of new treatment guidelines. Consequently, healthcare professionals can experience cross-pressure in meeting their patients' needs, their own interests and administrative and governance requirements designed to achieve a fair and equitable allocation of healthcare resources. This can put healthcare personnel in a difficult position (Freidson, 2001).

Traditionally, there were few governmental publications on the value basis of the Norwegian healthcare system. However, at the turn of the millennium, the white paper "Report to the Storting No. 26 (1999-2000)" concluded that equality, justice, access to good quality health services, professional soundness, and values such as human dignity and solidarity with the most disadvantaged were central values in the Norwegian Healthcare Service. In later assessments, equality, justice, and human dignity have remained a consistent theme in reports on prioritization (Barra et al., 2020). While prioritizing healthcare is a complex task of ethical character, principles for prioritization have been drawn up in Norwegian healthcare. Priorities are based on their utility, the resources, and the severity criteria; all criteria must be assessed together. The more serious a condition is, and the greater the benefit of treating it, the more acceptable its high consumption of resources can be (Bringedal, 2015).

Furthermore, the patient's role has evolved in the Norwegian healthcare system. User participation has been a statutory right since the Norwegian Patients and User Rights Act of 1999. The law grants patients the right

to participate in their treatment, follow-up, and decision-making concerning their health and the healthcare services (Kasper et al., 2017). Thus, later white papers and reports by the Norwegian healthcare government have consistently echoed the need for user involvement in health and social care and emphasized the need for patients to become active participants in the primary healthcare system of tomorrow (NMHCS, 2017, 2019).

However, given the structure of the Norwegian welfare state, healthcare personnel in primary care are still its gatekeepers (Terum, 2003) or street-level bureaucrats managing the task of ensuring efficient and effective use of limited healthcare resources (Lipsky, 2010). When providing healthcare services to patients, healthcare professionals balance their professional opportunity for autonomy – the freedom to act independently based on education and expertise, and their professional expertise – combining their judgment and knowledge to make decisions in uncertain situations (Grimen & Molander, 2008).

In the literature on ethical decision-making, the development of rational models preceded the development of non-rational ethical decision-making models (Schwartz, 2016). Challenging the assumptions of individual actors acting rationally in decision-making, researchers have offered alternative social models of moral reasoning that are based on intuition (Haidt, 2001), heuristics (Gigerenzer, 2008), sensemaking (Sonenshein, 2007) and neurocognitive processes (Reynolds et al., 2010). Similarly, research has questioned the assumptions that people make rational ethical decisions and evaluate their ethical decisions from a moral standpoint (Palazzo et al., 2012). Instead, building on business ethics literature (Trevino, 1986) showing that (un)ethical decision-making is the result of an interplay between personal traits of the individual decision-maker and the situation characteristics, Palazzo et al. take a sensemaking approach to argue that "ethical blindness" is a complex interplay between individual sensemaking activities and contextual factors. In the literature, "ethical blindness" has been defined

as the decision makers' "temporal inability to see the ethical dimension of a decision at stake" (Palazzo et al., 2012, p. 324).

Palazzo et al. (2012) adopt a constructivist view in which individuals are seen to act upon frames in interaction with their environment. Defining *frames* as "mental structures that simplify and guide our understanding of a complex reality" (Russo & Schoemaker, 2002), it is argued that ethical blindness results from the interplay between rigid framing and contextual pressures. Frames, which are indispensable in understanding complex situations, impose mental boundaries and cognitive blindspots and, with increasing rigidity, lock people into situations that deprives them of the ability to switch perspectives (Palazzo et al., 2012). Emphasizing the role of cognition and frames, Palazzo et al. discuss how contextual factors interact with framing. Notably, there are arguments that whether distal and proximal contextual factors are in concert with or opposed to the initial framing will reinforce or weaken the framing. Furthermore, the study argues that people using a rigid scientific, economic or legal framing do not necessarily act unethically. However, when these frames are used, the probability of people not seeing the ethical dimension of their decisions increases (Tenbrunsel & Messick, 2004).

Contextual factors can be either distal or contextual. For distal contextual factors, the literature argues that strong institutions contribute to strong belief systems and to isomorphic pressures that steer individuals to follow established organizational practices and interpretations (DiMaggio & Powell, 1983). Concerning the proximal factors, the study discusses the relationship between organizational context and frames and whether organizations (especially successful ones) tend to approach an "architecture of simplicity" where their worldview becomes increasingly narrow (Miller, 1993). Literature has also suggested that time pressures lead people to reduce their cognitive load by simplifying their decision-making strategies (Rieskamp & Hoffrage, 2008); time constraints also affect individual framing (Sonenshein, 2007).

Regarding distributed leadership practices, recent work building on Palazzo's conceptualization examines ethical blindness in organizations from a vantage point of practices or routines (Kump & Scholz, 2022). In their theorizing, Kump and Scholz focus on ethical blindness as stemming primarily from the two core components of "semi-automation" and its "distributed nature". Concerning semi-automation, Kump and Scholz argue that ethical blindness is likely when practices can be performed "without much deliberation" until there are errors that require actors to intervene (Kump & Scholz, 2022). Given the distributed nature of organizational routines, distributed knowledge and distributed responsibility may contribute to ethical blindness. The article concludes that sharing knowledge and cognitive labor within a group of actors or networks can obscure decision-making and actions. Consequently, individual actors might find it difficult to understand the resulting "transactive memory system" (Pentland & Hærem, 2015). It is argued that within such wider organizational systems, individual actors may not be positioned or able to understand the consequences of their actions and their role in contributing to (un)ethical practice (Kump & Scholz, 2022). Similarly, Kump and Scholz argue that distributed responsibility may result in "collective responsibility gaps" (Collins, 2019). At the individual level, becoming focused on sub-goals (Cohen et al., 2014) or personal task completion at the cost of the overall responsibility for the routine can contribute to responsibility gaps (Ashforth & Anand, 2003). At the collective level, responsibility gaps might result where the routine distributes labor in a way that does not allow participants to raise discussions or process ethical issues (Collins, 2019).

3.3 Summary of the theoretical approaches used in the thesis work

In this thesis I use qualitative methods to explore the content of the social interaction between healthcare workers and patients in providing integrated care. That the healthcare situation of elderly multimorbid

patients can undergo rapid changes that require healthcare workers and organizations to be adaptable is a premise of the thesis. While Gronn's distributed leadership theories focus on a “conjoint agency” or a “shared mind” (Gronn, 2002), the DAC framework includes assumptions about “leadership beliefs” (Drath et al., 2008).

In a healthcare context, the commonly accepted framework of clinical ethics used in Article 3, resembles a "shared mind" or "leadership beliefs,” or what Spillane terms heed leadership and a higher mental model within collective processes (Spillane, 2005). Introducing new leadership models and tools to improve cross-organizational collaboration can be particularly challenging in organizations and settings where there are ingrained leadership beliefs or norms for how work should be performed. By studying distributed leadership as a phenomenon and exploring the content rather than the outcomes of collective work patterns, the theoretical models can contribute to a better understanding of distributed leadership in integrated care.

Despite increasing attention to coordination and new ways of working in healthcare reforms and government white papers (NMHCS, 2023), distributed leadership has not yet been recommended or formally introduced as a leadership model in the Norwegian healthcare system. Concerning the implementation of distributed leadership in practical settings, the UK stands out as the country making the most progress. One aim of the UK National Health Service is to adopt distributed leadership to change the healthcare setting (McIntosh & Layland, 2019), and have included elements of distributed leadership in various leadership models and development programs (Gillies et al., 2021). Reviews of distributed leadership emphasize the importance of prioritizing initiatives that help aspiring and established leaders distribute influence (Beirne, 2017). However, evaluation of interventions aimed at developing collectivistic leadership in healthcare demonstrates that more rigor and consistency is needed in this research (De Brún et al., 2019).

4 Methods

This chapter presents the methodology for the thesis. It begins by discussing the philosophical underpinnings of the thesis, followed by a description of the research design, the research setting, and recruitment of participants before data collection methods and data analysis are discussed. The chapter ends with a discussion of the ethical considerations of the thesis and research quality. Reflection on the choice of methodology and limitations to the research findings are also discussed in Chapter 6.

4.1 Philosophical positioning

This PhD thesis explores the collective work patterns among healthcare professionals and patients, to enhance the understanding of distributed leadership in integrated care. To achieve this, I decided on an exploratory design and qualitative methodology. I differentiate research by its objective, which can be to explore, describe or explain the topic of interest (Creswell et al., 2007). In this thesis, the first article explores the leadership actions GPs take toward other healthcare professionals when providing integrated care to elderly patients with multimorbidity. The second article explores elderly multimorbid patients' experience of integrated care with reference to leadership as a distributed group-level process. The third article explores how clinical ethics influence GPs' participation in collective work processes in the provision of integrated care to elderly patients with multimorbidity.

Broadly speaking, qualitative social science focuses on real-world lived experiences (Blaikie, 2007). This distinguishes social science from other branches of science that use reductionist methods to simplify complex phenomena to understand them. Accordingly, the qualitative social sciences occupy a unique interstitial space in science, providing a deeper understanding of the inner workings of phenomena, and bridging the gap

between research findings and reality observed in many scientific branches (Cartwright & Montuschi, 2014).

Social scientists who use qualitative methods to understand people's lived experiences holistically frequently place greater emphasis on understanding the depth and content than the outcome of the social processes (Gerring, 2011). This is a contrast to reductionist approaches (Sayer, 2010) that risk oversimplifying and ignoring interconnections between elements when quantitative methods are used to measure, analyze, and manipulate specific variables of complex systems.

While quantitative approaches require large data sets, qualitative research requires the researcher to collect and interpret rich, in-depth data. Therefore, qualitative findings are usually based on smaller data sets, which binds them to the research context and makes it difficult to extrapolate to other populations. In qualitative research we can identify five intellectual goals: 1) providing rich descriptions of research participants' experience; 2) uncovering the whole picture in a holistic way; 3) understanding dynamics in social interaction and relations that are in constant flux; 4) help explore less developed phenomena in ways that can contribute to future hypothesis testing; and 5) to contribute to conceptual clarification and theory building (Maxwell, 2008).

While ontology tries to answer existential questions concerning the "nature of reality and what is," epistemology deals with theories of knowledge and questions over "how we come to know." This thesis utilizes a constructivist ontology (Creswell & Creswell, 2017), understanding reality as something created by people through their interaction with each other and with the world. Consequently, I adopt the stance that reality is the product of human interaction (and does not exist independently of human interaction). Similarly, the epistemological position of the thesis is that reality is created through the interaction between the interpreter and the interpreted.

The thesis is positioned within the constructivist paradigm which assumes the existence of multiple truths (Polit & Beck, 2020). The assumption of these multiple truths builds on the premise that individuals are autonomous and creative and can hold multiple roles depending on the context. This means that depending on the situation, an individual may be a parent, a child, or an employee. The result is that social life comprises multiple evolving realities that are shaped by individuals' shared experiences and understanding of reality. Therefore, social reality is a developing fabrication resulting from the shared understanding and interpretation of individuals' and groups, and not fixed or objective. From this perspective, social science is the study of the interaction between human beings and the understanding of the human experience, knowledge and meaning making in specific social settings. Consequently, there is a connection between the ontological and epistemological position of this thesis, the choice of a qualitative research design and the use of semi-structured interviews for data collection in the PhD thesis.

A constructivist worldview requires the researcher to understand the world in which he or she lives from the worldviews of the research participants (Creswell & Creswell, 2017). Hence, a social constructivist approach relies on qualitative methods to answer "why" and "how" research questions. As qualitative research focus on naturally occurring processes and meanings (Denzin & Lincoln, 2008), findings can be affected by the researcher's worldviews (Creswell & Creswell, 2017). Therefore, my position as a researcher and GP cannot be separated from this PhD thesis. On the one hand, my role as a researcher implied that I held an outsider role for the period of the research project. However, my assumption is that as a GP I also held an insider position which gave participants confidence in me during interviews. At the personal level, the motivation for this PhD thesis comes from previous experiences with social science studies and from work as a physician. Although medical treatment is supported by extensive scientific evidence, care and cure

interventions do not always produce the expected result. This experience of a "research-to-practice" gap aligns with assumptions that there can be something about human interaction in social processes that reductionist methods do not easily identify or measure. Thus, both a social science background and real-life experiences from clinical medicine have motivated this thesis.

4.2 Research design

The research project "Leadership and technology for an integrated health service" was a case study with qualitative data from interviews conducted from October 2019 to March 2020. The case study included twenty groups of three people: a patient, the patient's GP, and a home care nurse who interacted regularly. To achieve the objectives of the thesis, semi-structured interviews were carried out with all participants at inclusion and at approximately three-months follow-up.

Although there is no universally accepted definition of a case study (Langley & Royer, 2006), I use the term broadly to encompass the exploration and investigation of a contemporary phenomenon in its context and where the boundaries between that phenomenon and its context may not be evident (Yin, 2009).

To manage the numerous and complex variables affecting social situations, theory and models reduce variables to a manageable minimum. Under these circumstances, case studies enable the researcher to search for variables and concepts that represent the core of the phenomenon (Campbell, 1975). Case studies generate in-depth data that through analysis and interpretation can provide the researcher with a better understanding of the underlying factors and processes influencing complex, dynamic and context-specific phenomena. Consequently, researchers conducting case studies aim to contribute by using robust data to provide the empirical insight to answer questions about the what,

the how and the why that characterize qualitative research (Gephart Jr & Richardson, 2007).

However, a case study can be challenging to carry out (Yin, 2009). Access to senior management (or informants) and research participants can be difficult during the initial phase of the research project. Interacting with research participants throughout the study period can also be taxing for the researcher. Balancing good interpersonal skills in meetings with research participants and maintaining a neutral and independent stance concerning the research is necessary. When interviewing participants, the researcher needs to ask the right questions and be a good listener. Additionally, the researcher must be open to alternative views that might be different from their own. A well-conducted case study requires a clear research question, a thorough understanding of existing literature, a well-formulated research design based on well-defined assumptions concerning the research paradigm, and the skills to synthesize the data collected through the research project (Scapens, 2004).

4.3 Research setting, recruitment, and choice of informants

The research project was carried out in a semi-urban municipality with about 80,000 inhabitants in Western Norway. Norway is a developed country that is frequently rated as one of the world's best countries to live in. By Norwegian standards, the region is known for a thriving business community, annual population growth due to national and international immigration, and generally high scores in national surveys of living standards.

After contacting the chief medical officer and the director of the municipality health and social care services, the research group was granted access to the GPs in the municipality and to the leader of the home care nursing services. While the research group collected information about the GPs in the municipality, the leader of the home

care nursing services helped the research group contact the leader of their district offices that gave access to home care nurses.

Recruiting busy GPs was a daunting task. A presentation of the research project at a meeting of GPs in the municipality did not recruit more than two participants. Therefore, GPs' offices were contacted directly with a request to participate and recruit patients. Some GPs recruited patients themselves; others had their staff do so. The research group started recruiting patients with the help of nurses in the municipality's acute ward. After the patients and GPs had agreed to participate in the study, the patients' home care nurses were recruited. As patients were not assigned to a regular nurse, and sometimes transitioned between stays in nursing homes and at home, and because one patient discontinued home care nursing services while the research was underway, it was decided to recruit the home care nurse who was most familiar with the patient.

Patient participation in the research project was determined by these inclusion criteria:

- Patients were at least 65 years of age
- Multimorbidity as diagnosed with two or more medical conditions
- Receiving treatment with at least four medications
- Enrollment with municipality home care nursing services
- Hospitalization within the last 12 months

Participants with medical conditions that could hinder full participation were excluded from the study. The following health conditions led to exclusion:

- Advanced dementia
- Other medical conditions making recruitment or participation difficult

4.4 Data collection

Data collection consisted of semi-structured interviews conducted between October 2019 and March 2020. The research group generally requested one hour to conduct the interviews.

Exploring people's lived experiences through interviews requires the researcher to take a position in the participants' world and to exhibit efforts for the time it takes to conduct interviews. Most of the GPs were interviewed in their offices and most patients in their homes. One GP was interviewed in his home office, one patient who had been admitted to a nursing home and two patients during stays in the municipality acute ward. The research group frequently needed to contact participants several times to schedule interviews. While GPs and home care nurses had difficulties finding time for interviews, some patients had to reschedule interviews due to deterioration in their health condition.

The PhD thesis aimed to explore the phenomenon of distributed leadership as a social process. Therefore, the interview questions were broadly formulated and designed to focus the participants on their most recent experiences with the healthcare system. Prompting the participants to focus on the lived experience and avoiding specific questions on leadership helped to avoid potential preconceived attitudes and beliefs participants may had about leadership. The interview questions required GPs and patients to recall and retell from their contacts with each other, as well as episodes requiring hospitalizations, changes in medical treatment and home care nursing services within the last year.

Given the focus on the research participant's story, the interviewer needed to create a relaxed and supportive environment in which the research participant was comfortable telling their story. Interviewees sometimes disclosed information that researchers had not expected. Such information was usually related to events in the patient's history that had made a profound impact on the patient or his or her healthcare provider.

In such cases, the researcher attempted to establish a relaxed atmosphere before explaining that the interview had to follow the interview guide to cover all relevant topics.

Semi-structured interviews capture nuances and provide information that cannot easily be collected by questionnaires, scales, or other data methods. In practice, the researcher must balance passive listening with probing questions. The researcher's interviewing skills should be adapted to the interviewee, and different probing questions used in different settings. A semi-structured interview guide provides some direction but is also flexible enough for the researcher to stay close to the interviewee's lived experience.

Throughout the research project, the interviewers learned the challenges of creating an informal, neutral, and pleasant atmosphere with research participants. First, the research setting required me as a GP, and the PhD student with work experience as a nurse, to acknowledge our roles as both researchers and professionals during interviews. Our backgrounds as a GP and a nurse likely led participants to focus more on medical aspects than on their experience as recipients or as providers of integrated care. Second, the patients knew that their GPs and home care nurses were also participating in the study. This may have limited the extent to which patients felt free to voice criticism or retell their story in full. Despite the promise of complete confidentiality, I expect the GPs to have omitted irrelevant patient information and the patients to moderate accounts of their negative experiences with the GPs and home care nurses participating in the research project.

Interviews were audio recorded and transcribed verbatim by the research group in collaboration with employees at the University of Stavanger and professional editors.

4.5 Data analysis

In qualitative data analysis, the researcher moves back and forth among the three building blocks of data reduction, data display and conclusion drawing (Miles & Huberman, 1994).

In all three articles, data reduction was accomplished by coding the transcribed interviews. Reflection on the findings from coding is essential before the researchers categorize and analyze findings to identify relationships, patterns, or themes in the collected data. Hence, in qualitative analysis, findings are summarized into generalizations that capture the essence of the data's content and that can be compared with existing literature (Miles & Huberman, 1994).

Data display helps both with the analysis and reporting of the data. In this thesis, all three articles use quotations and extracts from interviews to illustrate for the reader how the research findings were reached. The inclusion of extracts from interviews helps to illustrate and communicate research findings in a way that enhances the credibility of the research.

Interpretation is the last building block of the data analysis process. Verification is essential, so I reviewed and cross-checked my findings with supervisors and other members of the research team to ensure accuracy. I discussed the relevance and implications of the research findings with reference to the literature in all three articles.

I follow Creswell and van Manen (Creswell et al., 2007; Van Manen, 1990) who emphasize the centrality of the researcher's subjective interpretation and insight in analyzing and uncovering the deeper meaning and themes of the data. Consequently, the credibility of findings from the analysis of qualitative data depends on the researcher being as close to the data as possible. Therefore, getting to know the data was a time-consuming part of the thesis work that required going back and forth between reading interviews and conducting data analysis to confirm emerging patterns and themes. For all three articles, data

analysis was conducted with the help of the software data package NVivo 12.0. In the next section, I present the data analysis for each article.

4.5.1 Data analysis in Article 1: The use of the Gioia methodology

In the first article, the Gioia methodology was used in the data analysis to explore whether GPs' leadership actions can be understood as distributed leadership and as contributing to integrated care (Gioia et al., 2013; Magnani & Gioia, 2023). The Gioia methodology builds on grounded methodology, a qualitative research method in which the data, not pre-existing theories, guide the research process (Glaser & Strauss, 2017). The Gioia method relies on inductive logic of inquiry to achieve rigor in qualitative research (Gioia et al., 2013). This means that the Gioia method is positioned along the interpretive and constructivist paradigms. Therefore, when the Gioia methodology is used, organizations are considered dynamic and co-created from the interrelated interactions of individual parts that require a holistic perspective and cannot be reduced (Magnani & Gioia, 2023).

The Gioia methodology offers rigor by using an inductive logic and clearly demonstrating how the researcher arrived at his or her findings. Therefore, the Gioia methodology claims to answer a central question confronting qualitative researchers: "How can we be sure that you know what you claim to know?" To achieve this rigor the Gioia methodology uses a systematic two-step approach to the analysis of the data. The first step is data-centric and consists of the researcher immersing him or herself in the data before coding interviews. Next, the researcher reflects on the results of the analysis and continues by categorizing and identifying relationships among the individual codes derived from the interviews. The categories that emerge are the first-order concepts. Findings in this stage of the analysis are presented in the participants' language to ensure that the findings describe their lived experience. The

second step is theory-centric. Here, the researcher applies first-order concepts to develop second-order concepts and aggregated dimensions that relate to existing or new theories.

The pursuit of inductive inquiry and assumptions that participants are knowledgeable and better positioned to understand their lived experience, as compared to the researcher, are key characteristics of the Gioia methodology. However, in the researcher-centric stage, it is the researcher's task to provide an interpretive analysis of the participants' experience with reference to existing research theory and literature. This step ensures that the findings become transferable to other settings and contexts and that we as researchers can contribute to theory (Lewin, 1943). Since the researcher is not unaffected by prior research, knowledge, and beliefs, this transition from the data-centric to the researcher-centric step is a cyclical back-and-forth frequently considered more of an abductive than an inductive inquiry.

From applying Gioia methodology to the analysis in Article 1, the identified first-order concepts resulted in seven second-order concepts and three aggregate dimensions. In the analysis, the back-and-forth cycling process between first-order categories, second-order concepts and aggregate dimension, was informed by existing literature and configurations of distributed leadership identified and described in the research literature (Leithwood & Mascall, 2009). Furthermore, the researcher-centric step was influenced by previous literature and the researcher's work in the municipality where the research project was conducted. Thus, the analysis was, in terms of the Gioia methodology, clearly more abductive than inductive (Gioia et al., 2013). All authors read the data to avoid and minimize research bias. Additionally, analysis findings were discussed in meetings between the researcher and supervisor throughout the data analysis period.

4.5.2 Data analysis in Article 2 and Article 3: Thematic analysis

In Articles 2 and 3, thematic analysis was employed to uncover and identify themes within the semi-structured interviews collected for the PhD thesis work. I followed the approach to thematic analysis as suggested by Bradley et al. (2007). This methodology is particularly useful for qualitative research in the healthcare setting and is based on the assumption that recurring unifying statements make up themes that capture the essence of the research (Boyatzis, 1998). Furthermore, the identified themes constitute basic concepts that describe the experience of the individual participants (Bradley et al., 2007). The researcher's interpretation is essential in the methodology, and various researchers may develop different themes as they are subjective representations of the researcher interpretation of the data. When thematic analysis is carefully developed and continued until saturation, when new themes stop emerging, thematic analysis offers a comprehensive, nuanced, and holistic analysis of the phenomenon (Bradley et al., 2007; Ryan & Bernard, 2003).

According to Bradley et al. (2007) there is no single appropriate way to conduct qualitative data analysis. However, the analytical process begins with the researchers becoming familiar with the collected data. This requires rereading the data until arriving at a general understanding of its scope and context so that the data can be coded. When coding the data, researchers organize the data in accordance with formal procedures that assist them in uncovering and documenting the connections between the experience of research participants and the overarching concepts described in the data (Bradley et al., 2007).

Codes are short annotations of words, sentences or paragraphs that help to catalog the key concepts identified from the data. A code structure can be developed through inductive logic, deductive logic and what is described (with similarity to abductive logic) as an integrated approach

to code structure development (Bradley et al., 2007). Theoretical saturation indicates that the analysis of qualitative data is complete (Glaser & Strauss, 2017). However, analysis reaching saturation may identify complex concepts and gaps that require additional data collection and analysis. As a final step of analysis, researchers should discuss discrepancies and arrive at one single agreed-upon application of the findings (Bradley et al., 2007). Concerning qualitative research and the holistic perspective, the codes identified from the analysis can be interdependent and jointly capture and describe the richness and complexity of the participants' lived experience of reality (Bradley et al., 2007).

4.5.2.1 Thematic analysis in Article 2

In Article 2, the thematic analysis followed the approach suggested by Bradley et al. (2007) discussed above. At the time of the thematic analysis, I had familiarized myself with the data from multiple readings. Analyses were based on the passages describing and illustrating the patients' experience of interacting with healthcare professionals in general and during critical events requiring hospital referrals or stays in the local municipality acute ward. Thematic analysis of patients' interviews identified four themes. Theoretical saturation was reached after analysis of 13-14 interviews was completed. The emerging findings were discussed within the research group and discrepancies resolved to help the research group agree on the findings and their relevance to the integrated care setting.

After completing the analysis of patient interviews, the GP interviews were analyzed. The inclusion of GP interviews in the study can be debated as introducing medical perspectives may overshadow the patient's voice and dilute the patient-centered perspective of the study. However, it was assumed that referencing the experiences of patients with the experience of GPs would provide context and a richer, more holistic picture of how collective work processes in the municipality

unfold in the delivery of integrated care. To finalize the analysis, the DAC framework was employed to identify relationships between themes and explore collective processes that could be considered DAC practices.

4.5.2.2 Thematic analysis in Article 3

In Article 3, the methodological approach to the thematic analysis has similarities to the approach in Article 2. However, in the third article, interviews were analyzed with reference to a clear and established conceptualization of the practice of clinical ethics. Thus, the thematic analysis in Article 3 was deductive and based on a broad taxonomy of predefined dimensions (Bradley et al., 2007). The predefined categories were beneficence, non-maleficence, autonomy, and justice. The purpose of deductive analysis is to categorize data consisting of large amounts of text into categories similar in meaning and integrate concepts already well-known in literature or organizations (Bradley et al., 2007). According to Bradley et al. (2007), it is of great importance to avoid "forcing data into categories" when applying predefined dimensions, or a "start list," in deductive thematic analysis. Again, meetings were held within the research group to minimize researcher bias.

4.6 Ethics

The research project was approved by the Norwegian Center for Research Data (ref. no. 228630) and exempted from assessment by the regional ethics committee, where the research project was considered healthcare service research (ref. no 2019/1138). The research project was conducted in accordance with the ethical principles of the Helsinki Declaration.

All patients, GPs, and home care nurses participating in the research project received written information about what participation in the research project entailed (Appendix). This information was also communicated verbally to ensure that all participants understood what

participation in the research project meant. All participants were informed that participation was voluntary and that they could withdraw from the study at any time. Participation was anonymous, and all participants were informed of the research data deletion scheduled at the end of the research project period.

The recruitment of patients was facilitated by GPs included in the research project and by nurses working in the municipality acute ward. Inclusion of GPs depended on the recruitment and inclusion of one of their patients. GPs and home care nurses received information about the research project in information meetings and as written material and were encouraged to recruit patients via their professional meetings with patients.

Compared to the GPs and the home care workers included in the research project, the elderly multimorbid patients included in the study represent a particularly vulnerable group from a research ethics perspective. After GPs or nurses recruited a patient for the research project, the research group contacted that patient to obtain additional information about the research project and study participation. After the patient confirmed his or her participation in the study by providing written consent for study participation and disclosure of confidentiality for healthcare personnel participating in the study, the research group scheduled the interviews. The interviews with patients preceded the interviews with their GPs and home care nurses to avoid unnecessary breaches of confidentiality should the patient decide to withdraw from the study.

Patients with multimorbidity are vulnerable and may find it difficult to arrange study participation and interviews. Experience from the project also shows that some patients depended on next-of-kin to participate in interviews and sometimes had to cancel interviews due to deteriorating health or scheduling conflicts with healthcare providers. From a research ethics perspective, the research projects' decision to seek out multimorbid participants for follow-up interviews is open to debate.

I have an affiliation as a GP in the municipality where the research project was carried out. As a researcher, the research group and I depended on the goodwill of our colleagues and the municipality to conduct the study. However, the municipality had no influence over the research project's design or the analysis and interpretation of the collected research data.

I separate my role as a researcher from my role as a GP in the municipality. None of the other members of the research group who contributed to the design of the research project were associated with the municipality. Additionally, the diverse and multidisciplinary backgrounds of supervisors and researchers within the research project group assisted in pursuing objective and trustworthy analysis and interpretation of the research data.

4.7 Research quality

4.7.1 Credibility

Credibility is the degree to which the research methods used in a study accurately describe the participant's experience of the phenomenon under study (Lincoln & Guba, 1985). Achieving credibility in research requires the researcher to collect and interpret data in ways that reflect the truth, which is the lived experience of the research participants.

In general, clearly formulated research questions contribute to the credibility of a study. In this PhD thesis, the absence of a definition of distributed leadership in the literature is a challenge to its credibility (Currie & Lockett, 2011; Feng et al., 2017; Harris et al., 2022). Nevertheless, from extended reading of literature and from familiarizing myself with the different conceptualizations of distributed leadership, I have developed a good understanding of distributed leadership as phenomenon and as theory. Present theories on distributed leadership can be hard to comprehend and are presented without a clear definition.

Both Gronns' and Spillane's theoretical conceptualizations of distributed leadership are examples (Gronn, 2002; Spillane, 2005). However, in its simplest form, I interpret and conceptualize research on distributed leadership as the study of collective work patterns. From this starting point, it is possible to conceptualize and study distributed leadership in many ways.

To answer the research questions, I selected inclusion criteria with the intention of recruiting patients who had experience with the phenomenon under study. To study distributed leadership, it was essential that patients had been hospitalized within the last year, had a regular GP, and were recipients of home care nursing services. This ensured that patients and healthcare personnel had recent experience from interacting with each other in the provision of integrated care in the municipality.

Including only one patient per GP and home care nurse secured a multiple case research design. This design helps achieve consistency in the patterns observed in data analysis and increases the robustness and credibility of the study. Additionally, the regular meetings held within the research group and with supervisors throughout the research period contribute to credibility. The concept of distributed leadership and the findings emerging from the research project were also discussed with other researchers at conferences during the PhD thesis project period.

4.7.2 Dependability

Dependability is the degree to which evidence in research is consistent and stable (Lincoln & Guba, 1985). In other words, dependability is achieved where the data are stable over time and conditions, and research findings are consistent, reliable, and reproducible.

The inclusion of interviews with patients and GPs can be considered "soft triangulation." Triangulation is the use of multiple methods in a study of the same phenomenon to increase the credibility of that study

(Hussein, 2009). While hard triangulation involves multiple quantitative or qualitative methods, soft triangulation involves within-method triangulation and presenting multiple perspectives on the same phenomenon. Both methods enhance the validity and reliability of research findings (Turner & Turner, 2009). Where the story and experience of groups of participants correspond and describe the same experience, the dependability of the study increases.

Several sources of bias may have affected the study. The recruitment of patients by GPs and nurses for participation in the research project may have been biased towards patients who are most accessible. Additionally, there may be confirmation bias as participants were aware that their healthcare provider and patients also participated in the study. However, the use of semi-structured interviews in the study may have helped to reduce bias by allowing the interviewers to follow the respondent's lead and ask follow-up questions. Additionally, meetings of the research group throughout the research period assisted in reflections on interview techniques for data collection and later analysis and interpretation of the collected data. This improves the consistency and reliability of the data analysis, thereby enhancing its dependability. Lastly, the use of rigorous and established methods for data analysis contributes to transparency and makes replication of the study possible.

4.7.3 Transferability

Transferability refers to whether the findings from a study are applicable to other settings, contexts, or groups (Lincoln & Guba, 1985). I argue for a degree of transferability of the study findings and that the experience of the participants in the research project is representative not only of other GPs and patients in the municipality where the study was carried out but also in other municipalities in Norway and to countries similar to Norway.

The findings from this PhD thesis, when carefully considered, can be transferable to other healthcare settings with similar organizational structures and cultures. As the research project employed purposeful recruitment of participants with experience of the phenomenon under study, and provides rich description of the research context, this enables other researchers and practitioners to assess the degree to which the findings from the PhD thesis are transferable to other settings. Additionally, discussing the relevance and limitations of the research findings in the context of existing literature enhances its transferability.

4.7.4 Confirmability

Confirmability refers to whether the research findings are objective, neutral and based on the participants' experience rather than the researcher's bias and preconceived notions (Lincoln & Guba, 1985). Achieving confirmability depends on the study's credibility, dependability, and transferability. As discussed above, the contribution of the multidisciplinary research team and supervisors and discussions over the research findings at meetings within the research group and at conferences reduces and minimizes researcher bias. Including patients and GPs in the study ensures the identification of various experiences of the phenomenon under study. To increase confirmability, all three studies included in the thesis use participant quotes to support research findings. The researcher's background as a GP has also been disclosed in the individual studies and in this thesis.

5 Results

5.1 Article 1: General practitioners' perceptions of distributed leadership in providing integrated care for elderly chronic multi-morbid patients: a qualitative study

Article 1 explores the leadership actions GPs take to other healthcare professionals and patients and whether these leadership actions can be considered distributed leadership and contributing to integrated care.

In this article the Gioia methodology is used (Gioia et al., 2013). The results show that GPs who provide integrated care take part in three work processes when working with other healthcare personnel and patients. First, the findings show that GPs contribute to an integrated patient experience primarily by facilitating cooperation with hospitals and other healthcare providers, creating continuity, and working to achieve a holistic focus in service provision. Second, the findings show that GPs ensure internal coherence in collective work practices by monitoring and following up work processes to secure implementation and quality in healthcare provision. Lastly, the findings show that maneuvering organizational structures and medical cultures is part of the GPs' work when participating in work processes characterized by distributed leadership in integrated care. GPs have more authority and decision-making power regarding traditional medical decision-making, involving clinical measurements and hospital admissions, compared to decisions regarding the allocation of home physiotherapy or nursing home stays to patients.

At the aggregate level, the three work processes GPs are involved in when providing integrated care can be recognized as two of the three patterns or configurations of distributed leadership described in the literature. Of the two collective work processes GPs participate in, the

preplanned or institutionalized practice is most frequently identified and spontaneous collaboration less frequently identified. In the case of institutionalized work practices, the result from the study shows that collaboration in the municipality is facilitated by and dependent on the digital tools in use. Communication among GPs and home care nurses in the municipality primarily involves one-to-one text-based digital communication, with telephone calls being reserved for more advanced cases where digital communication lacks flexibility. When GPs participate in spontaneous collaboration, the work practices evolve around meetings and closer relationships with the patients' home care nurses, making the collaborative provision of healthcare services more attentive to the patient's micro-context. However, where the configuration of spontaneous collaboration is observed, this appears to be as an ad hoc, short-lived involvement due to complex or urgent needs that require healthcare professionals who take action. When GPs participate in spontaneous collaboration with other healthcare workers, the physical meetings, relationship building, and the role of context likely shift the attention of healthcare workers from the macro-context of organizational structures and medical culture to the micro-context and the work process of creating an integrated patient experience.

5.2 Article 2: A qualitative study on distributed leadership in integrated care: Exploring the experiences of elderly multimorbid patients with GP collaboration

The second article explores how collaboration between healthcare professionals contributes to a patient experience of integrated care in the municipality, and whether the integrative mechanisms involved in integrated care in the municipality can be understood as distributed leadership. To achieve this, I conducted a thematic analysis of semi-structured interviews with patients focusing on the experience of receiving integrated care services. After identifying findings describing

patients' experiences of events that required interaction with healthcare providers, the interviews with GPs were reviewed to see if the GPs' experience of the episode could be identified and supplement findings from patient interviews. Finally, I used the DAC framework to assist with an aggregate approach to the findings from the thematic analysis, employing a holistic approach to investigate how patients experience distributed leadership and whether it contributes to integrated care.

The analysis of the results of the interview with the included patients revealed four themes. First, the analyses of the collected data show that the patients experienced the collective process of care provision as hard to influence. For example, patients lack access to digital collaboration among healthcare personnel in the municipality. This suggests that patients' voices are underrepresented in the municipality's multiprofessional collaboration. Furthermore, patients find it difficult to build relationships with home care nurses whom they do not see regularly and sometimes decide to contact their GP via home care nurses. The study shows that patients find it hard to contact GP offices. Similarly, findings also show that GPs sometimes consider home care nurses extensions of themselves, monitoring and looking out for their patients.

Second, the location of leadership is shifting and dependent on the patient's condition and situation. Patients frequently attribute leadership and responsibility to physical meetings and the healthcare provider initiating a medical treatment or healthcare service. Findings show that patients experience challenges in balancing autonomy and in relinquishing control. However, most patients strive to remain healthy and distance themselves from the sick role and the tasks of the professionals. In general, patients rely on the decisions and judgment of healthcare professionals when they feel sick or are too incapacitated to make their own decisions.

Third, the thematic analysis shows that the implementation of collective efforts in healthcare is separated in time, geography and between organizations in the municipality where the research was conducted. While home care nurses are part of everyday life and contribute to continuity, GPs are of relevance in times of disease and debility. The patients with multimorbidity express that they depend on several providers for the healthcare services they receive. Furthermore, they have to comply with different sets of regulations when receiving service offerings from GPs, home care nurses and hospitals. Patients find it hard to request additional homecare nursing services and experience more freedom when requesting healthcare services from GPs. However, patients can experience the GPs' service offering as limited to only some basic parts of their complex needs. Patients who have been hospitalized experience service provision as an exhausting assembly line. In spite of this, patients tend to accept and support the way their healthcare services provision are organized.

The last theme identified shows that patients experience the individual healthcare professional as unable to support the multiple potential goals residing in the collective. Additionally, Article 2 show that most patients included in the study depend on their families as caregivers, and that there is a clear recognition of the objective for patient self-management and what is considered the responsibility of healthcare professionals in the municipality.

By employing the DAC framework, the thematic analysis demonstrates the existence of three DAC outcomes that created direction, alignment, and commitment at the aggregate level. The findings show that a lack of access to the collective process by patients is problematic if healthcare organizations aim to obtain an experience of integrated care from a patient experience. Furthermore, the study identifies that a strict separation of responsibility and division of work leads healthcare workers to restrict their commitment to a limited set of services.

5.3 Article 3: GPs' experience of ethical work in integrated care for older adults with multi-morbidity

The third article explores the experience and ethical work GPs do when participating in collective work processes to provide integrated care to elderly patients with multimorbidity. To answer the research questions, thematic analysis of GP interviews was conducted to explore the challenges GPs may experience when transitioning from face-to-face encounters with patients to collective process in the provision of healthcare services. Thematic analysis of GP interviews was conducted with reference to a taxonomy of the four traditional principles in clinical ethics: beneficence, non-maleficence, autonomy, and justice. The thematic analyses identified three themes.

The first theme demonstrated that GPs engage in knowledge transfer to support and build patient autonomy; GPs want their patients to be autonomous and self-managing to the greatest extent and for as long as possible. However, some GPs take a more active role in this process than others.

The second theme identified from the analysis is that GPs showed a range of attitudes concerning their participation in collective processes and patient involvement in healthcare work processes. GPs generally consider themselves to play a central role in and to have responsibilities for non-maleficence and to avoid harming their patients. Here, findings show that GPs frequently act unilaterally and exclude other healthcare professionals from decision-making. Thus, findings show that GPs who practice distributive justice and who take professional pride in solving tasks single-handedly may limit their or other healthcare providers' contribution to collective work processes and distributed leadership in integrated care. Similarly, the different attitudes GPs bring to patient involvement may affect the collective processes or the forms of

distributed leadership that emerge. The study also identified that ethical work is continuous and demanding for the GPs.

The third and last theme is that GPs experience ethical pluralism when involved in the collective provision of healthcare services. GPs sometimes consider hospitalized patients overtreated and receiving medical interventions and treatment with the potential to cause them harm. Conversely, when patients are cared for in the municipality, GPs sometimes claim that patients should receive more healthcare or additional home care nursing services to help them live as best as possible in their homes.

6 Discussion

The aim of this PhD thesis was to explore if and how distributed leadership can contribute to integrated care for elderly patients with multimorbidity. The PhD thesis accomplishes this by exploring distributed leadership in an integrated care setting in a Norwegian municipality. The three articles together contribute to improving our understanding of the complex collective work processes in integrated care. The first article explores the leadership actions GPs take toward other healthcare professionals and whether these actions can be understood as distributed leadership contributing to the achievement of integrated care. The second article explores patients' experience of collective work processes in the provision of integrated care. The third article explores GPs' experience and ethical work when transitioning from face-to-face meetings with patients to collective work processes in integrated care. In the following discussion, I adopt a broader perspective as I examine the overarching results of the thesis.

The idea of distributing leadership in healthcare builds on assumptions that participation from everyone in a respectful, collaborative environment will increase the creativity, innovation, and efficiency in the provision of healthcare services. Most of the research on distributed leadership in healthcare has focused on hospitals, primarily leadership in teams, or across hospital departments that involve team members with similar professional backgrounds (Maritsa et al., 2022). Leadership as a social group process involving different healthcare professions and patients has received less attention from researchers.

6.1 Overarching theme and connections between the articles in this thesis

Researchers and policymakers argue that the roles and work of healthcare professionals need to adapt to the needs of patients with chronic diseases and multimorbidity. Traditionally, GP-patient consultations focused on a patient's immediate symptoms. GPs who diagnose and treat acute and transient diseases only occasionally depended on other healthcare professionals. Today, healthcare services are not limited to managing patients with disease but aim to create services that can prevent disease development in at-risk individuals and to avoid exacerbations in patients with disease.

Distributed leadership comes with a vision of healthcare workers who share knowledge, skills, and responsibility to improve healthcare service delivery. Where there is a culture of reciprocal trust and collaboration, the result can be a more inclusive and supportive environment that stimulates the involvement of patients and healthcare providers. In this way, distributed leadership becomes everyone's responsibility. While a particular responsibility may rest on traditional leaders who should delegate and involve those not usually included in leadership, distributed leadership requires everyone to take the initiative and step outside their comfort zones. In real life, individuals holding central positions in organizations need to take responsibility for modeling distributed leadership and ensuring that their colleagues can contribute to leadership. Senior organizational leadership must also ensure that digital communication tools, electronic healthcare records and other resources necessary for implementing distributed leadership are available. The success of distributed leadership will also require modification of work practices. Organizations must introduce the correct tools and create spaces where people feel comfortable interacting and sharing their knowledge, power, and responsibility. Achieving this may require organizations to prioritize the needs of the organization or the user over the interests of professional groups or departments.

A central question that arises from this PhD thesis is how the collective work patterns identified can be understood and interpreted from a perspective of distributed leadership. Viewing distributed leadership as emerging from the interaction of people, the available tools in use and the situation, and as spanning healthcare organizations, workers and patients, the following discussion focuses on the interactions at the intersection between organizations. The debate concerns the ability of healthcare providers and patients to contribute to the work processes and take action across organizations. Where physical, social, and psychological divides separate areas of responsibilities and work in organizations, the individuals working at the interface of organizations play an essential role in making sure that organizations connect well and function effectively (Leifer & Delbecq, 1978). Literature suggests that succeeding as a professional in such roles requires practice and a deep understanding of context (Whitchurch, 2015). Taken together, the three articles in this PhD project sharpen our insight into how the tools, individuals and the situation interact when leadership spans organizations in integrated care.

Tools

The results of the PhD thesis show that communication between healthcare workers and patients is assisted by tools for digital communication, telephone, and occasionally physical meetings.

When GPs communicate across organizational borders, interview findings show that they prefer digital communication with home care nurses to be clear and precise, not general and diffuse. One explanation may be high turnover among home care nurses; another may be that the forms of communication GPs have with healthcare workers complicate relationship building and stimulate the rule-based use of digital communication tools. Establishing preplanned or institutionalized work practices can clarify the division of labor among healthcare workers that

limits work duplication. From this, it is extrapolated that the rules established for digital communication ensure minimal friction and conflict among healthcare providers in the municipality.

However, the rules that contribute to the division of labor and a harmonious working climate observed in the municipality limit the fluidity of knowledge, skills, power, and responsibility across organizational borders. The results show that it is primarily through meetings that GPs develop a mutual understanding with home care nurses, enabling them to collaborate on solving the most intractable problems.

Similarly, the findings from Article 2, which explore patients' experience with receiving healthcare services, show limitations to the digital communication between patients and healthcare professionals in the municipality. Digital communication between GPs and patients was enabled by the e-health solutions offered via the national health portal helsenorge.no. The web portal is a free and secure website where patients can log in to book appointments, communicate with their GP, and access their healthcare visits and medical records. Findings show that patients can experience digital communication as one-way from their GPs. Patients also find it hard to contact their GP, particularly for subacute or acute needs. Occasionally, home-dwelling elderly patients reach across organizations and influence. Patients interact with both GPs and home care nurses personally, but only occasionally do they do so collectively. Sometimes patients ask their home care nurses to forward their requests to GPs. Elderly multimorbid patients can also depend on their next-of-kin to arrange and attend meetings with healthcare providers.

The normative rules governing the institutionalized practices frequently identified in digital communication among healthcare workers imply that healthcare workers use professional language for communication. This shapes the content of digital communication and limits the flexibility of

the distributed practice emerging in the municipality. While further development of digital tools may strengthen patients' participation, the achievement of spontaneous collaboration in digital communication may require communication to be real-time and not asynchronous as in the municipality today. Regarding potential solutions to patients' problems in accessing healthcare service providers and influencing the collective of healthcare workers servicing them, some patients noted that it would be beneficial for a healthcare coordinator to facilitate their interaction with their healthcare providers.

Findings from the third article of the PhD thesis indicate that digital communication among healthcare personnel follows informal and formal rules of cooperation and abides more by universal ethics than by pragmatic clinical ethics when communication is exclusively digital, and the patient does not participate. Therefore, the exclusion of patients from digital communication between healthcare personnel is a topic of debate from the perspective of distributed leadership and clinical ethics.

Relationships and interaction among healthcare workers and patients

Related to the debate over tools and practices for communication and interaction, findings from the thesis show that the healthcare professionals who surround the patient benefit from developing closer and stronger relationships among themselves and with the patient. The findings from Article 2 show that patients appreciated having a regular GP and would prefer to have regular home care nurses. Similarly, Article 1 shows that GPs' participation in collaborative meetings with home care nurses and patients helps build relationships and generate a shared experience and understanding of the situation.

Acknowledging that GPs participating in the study had busy work schedules and many obligations, the results of the PhD thesis show that there are few if any meeting points between GPs and other healthcare personnel working in the municipality. This limits the interaction and relationship building among healthcare workers. As discussed earlier, the digital tools used in collective work processes in the municipality do not compensate for the lack of physical interaction as they have been adapted to the work environment and are used in standardized ways for routinized tasks. Consequently, findings from the PhD thesis show that healthcare providers need to find ways to enhance their relationship building if distributed leadership is to make a stronger contribution to integrated care from a patient perspective.

If distributed leadership is reduced to the agency of healthcare workers and devoid of human interactions and the patient's social context, distributed leadership can result in organizational goals and utilitarian ethics favoring the greater good at the expense of pragmatic ethics and the needs of the individual patient. Consequently, there is a potential for collective processes to drown out the voice of the individual patient and create a situation where distributed leadership does not facilitate patient influence or participation. Other researchers have found that distributed leadership helps to streamline service provision in healthcare organizations (Salmon et al., 2020). To address the potential of distributed leadership to prioritize organizational integration over a patient experience of integrated care, digital tools should be made more responsive to the needs of both users and organizations. In the municipality where this PhD thesis work was conducted, this should be a topic of reflection for healthcare organizations considering the implementation of digital tools and work practices that contribute to integrated care.

In an influential study on distributed leadership and change agency in a primary health context in Canada, social capital was identified as an

important factor (Chreim et al., 2010). The study explored the dynamic of collective and distributed leadership in a change context involving collaboration across healthcare organizations. They found that establishing a "winning coalition" among complementary experts was paramount to the success of change. In general, social capital can be understood as the combinations of organizational conditions, social actors, and informal values and norms that enable people to work together for shared purposes in groups and organizations (Fukuyama, 1996).

Similarly, a UK study on cross-functional leadership collaboration that explored the potential influence of shared leadership on integrated care systems found that clinicians in hybrid leadership roles need to communicate effectively to defuse conflict and establish a cooperative attitude (Aufegger et al., 2020). This will ensure that everyone feels comfortable responding to and engaging in dialogue. Other researchers have also noted the importance of relationships, communication, and trust in distributed leadership (Brigham et al., 2012).

According to the literature, organizations aiming to create the spaces needed to stimulate interaction across people and organizations in distributed leadership can take a variety of approaches. Miller et al. (2007) have reported on a leadership intervention to improve clinical multidisciplinary teamwork in the delivery of diabetes care across primary and secondary healthcare sectors. This intervention was part of a Shared Leadership for Change initiative under the leadership award portfolio of the UK Health Foundation. The research identified that teams in such settings require protected time to reflect on their work and share their experiences. According to Miller et al., protected time for reflection can be achieved by creating spaces where people feel comfortable sharing ideas and taking risks, delegating responsibility, and empowering others to lead. Similarly, the study by Fitzgerald et al. (2013) identified that the working mechanisms and effects

of professional/managerial hybrids depend on the ability of these individuals to extend their roles to suit the organizational context and assist lateral facilitation. The study also argued that teams depend on competent personnel and are vulnerable if key personnel depart from the team. Dedicated and tailored support to improve team function and efficiency is needed for shared leadership to succeed (Miller, 2007). In the same vein, Chreim et al. (2010) concluded that the involvement of a dedicated facilitator may sometimes be beneficial.

Context and situation

Distributed leadership is deeply contextual and situational; this can contribute to shaping rules, individuals and tools (Bolden, 2011). Therefore, the distributed practices or collective work patterns in leadership stretching across healthcare organizations and workers must represent and include the context.

This can be achieved by introducing tools or establishing work practices that create opportunities for interaction and relationship building among healthcare workers and users. This can strengthen the collective's responsiveness to the situation and to the needs of individual users.

In a UK study, Brigham et al. (2012) explore how health visitors' work was shaped by their situation and the social-cultural context (e.g., situated practice). The study originated from a national policy context where health visitors were expected to adopt a new lead role in coordinating comprehensive healthcare services specifically adapted to the needs of children and their families (Brigham et al., 2012). The study found that when health visitors feel disconnected and unseen, the quality of relationships, trust, and the ability to influence suffers. Moreover, in another study, the success of a community-driven mental health initiative was attributed to a self-selected group with local knowledge, cultural understanding, professional expertise, and sufficient negotiating power (McEvoy et al., 2017). The study revealed that dialogic engagement,

which fosters shared objectives and learning, was a key component in collaborating with the municipality. (McEvoy et al., 2017).

A complete understanding of the factors promoting and limiting the fluidity of leadership across healthcare professions and organizations remains elusive. However, from a perspective of distributed leadership as a social group process, the identification of institutionalized distributed practices in Article 1 raises questions about how to make GPs and other healthcare personnel more committed and more attuned to each patient's situation and context. In line with the literature showing that healthcare providers should offer tailored services to their patients (Davis et al., 2005), Article 2 shows that patient participation must be enhanced if distributed leadership is to contribute to a patient's experience of integrated care. Concerning research that suggests the ability to influence suffers when health visitors feel disconnected and disregarded (Brigham et al., 2012), results from Article 1 show that the two GPs who had tried inventive and rule-breaking ways of working had not been well-received by collaborating healthcare workers in the municipality. This finding suggests resistance to change due to a lack of resources, individual interests, or other agendas at work in the provision of healthcare services. Related to this, Article 2, which investigates patients' experience of receiving integrated care, concluded that patients also hold leadership beliefs that include certain expectations about which roles and responsibilities the various healthcare providers in the municipality should take, and who should be in charge, when and where. From a distributed leadership perspective, the leadership beliefs held by patients may make it harder for healthcare workers to be innovative in healthcare services provision. Likewise, the third article identifies that GPs participating in the collective provision of integrated care hold themselves responsible for securing patient autonomy, minimizing patient harm, and achieving distributive justice. Consequently, findings from the thesis show that the leadership beliefs of patients and GPs' attitudes, shaped by their education, training, and professional work

culture, affect the ways in which collective work practices unfold in integrated care. The data collected for the PhD thesis suggest that the collective work practices in the municipality had developed organically and had been shaped and adapted to the tasks of healthcare workers under the loose guidance of top-down leadership. For example, GPs had obligations to acquire digital tools for communication and respond to digital requests in a timely manner.

The goal of healthcare is to achieve the triple aim with a reduction in costs of healthcare per capita, improvement in population health, and improving the healthcare experience of patients (Berwick et al., 2008). While research on integrated care is no longer in its infancy, integrated care initiatives still have challenges to overcome to reach their ambitious goals of contributing to achieving the triple aim. Present development with increasing prevalence of non-communicable chronic disease and demographic shifts is expected to continue in the future. In parallel, healthcare providers' and patients' expectations of the healthcare services they provide and receive likely increase. Considering the research aims and results of this PhD thesis, the next section discusses how distributed leadership may contribute to integrated care.

6.2 How can distributed leadership contribute to integrated care?

Findings show that the patients who participated in and contributed to this PhD thesis experienced the healthcare services they received as being of high quality. This is consistent with international evaluations that rank the Norwegian healthcare system among the best in the world (OECD, 2023a). However, this should not exclude discussions on how to improve healthcare service provision and integrated care in Norway.

In the following, I begin with a discussion of the relationship between distributed leadership and the need for continuity and coordination in

integrated care. I will then turn to the potential role of distributed leadership in contributing to a comprehensive service offering in integrated care. Lastly, the potential of distributed leadership in capturing the context and fostering flexible mindsets to assist healthcare workers in solving the most complex problems in integrated care is explained.

6.2.1 Can distributed leadership contribute to continuity in integrated care?

Discussions on continuity in integrated care pertain to informational, managerial, and relational continuity (Jeffers & Baker, 2016). While many factors influence the achievement of these three types of continuity, factors like access, coordination and resource constraints are frequently considered the main bottlenecks.

Ideally, distributed leadership includes easy-to-access healthcare professionals who can be contact points for the service users who need assistance. Healthcare professionals should always be available to step up and maintain continuity of services. This will also make healthcare organizations more resilient and capable of providing high-quality services independently of changes in the organization's internal or external environment. In terms of clinical outcomes, improving continuity can be key in managing the challenges in communication, medication management, and electronic healthcare records during patient transitions in integrated care settings (Macinko et al., 2003). For service users, distributing the responsibility for providing help and assistance among a wider group of healthcare professionals ideally leads to the right expertise being available to patients when needed and an improved user experience of the healthcare services.

There is scarce evidence on whether access has a beneficial effect on continuity (Cowie et al., 2009; Levene et al., 2018). Nevertheless, access is arguably one of the main factors promoting continuity, and initiatives holding objectives of continuity in healthcare service provision should focus on improving access (Tarrant et al., 2010). Many studies have shown that continuity is beneficial for both patients and healthcare personnel and that patients with long-term chronic conditions value continuous relationships with their GPs (Cowie et al., 2009). Among elderly patients with dementia, evaluations of a UK integrated care initiative concluded that the development and implementation of new models of integrated care services is possible (Raleigh et al., 2014). The project focused on achieving a more integrated approach to care for people with dementia and their families by bringing together health, social care, and voluntary sectors. The initiative was found to increase patients' and families' access to dementia support services and to improve the collaboration between the health and social care partners participating in the project (Raleigh et al., 2014). Counterintuitive to the concept of continuity, some patients participating in the PhD study specified that they preferred not to be patients and wished to limit their contacts with GPs and other healthcare providers. The findings from the PhD thesis also show that patients find it difficult to access the healthcare system when needed most and that GPs should commit more strongly and be more responsive to patients with subacute and acute needs.

Findings from the PhD thesis show what GPs do when contributing more effectively to distributed leadership in integrated care. Considering access and continuity in service provision, the PhD thesis identifies that GPs act in patient transitions during hospital discharge and can take responsibility for making the patient's voice heard in the wider healthcare system. This is most clearly observed in situations where GPs follow up with patients after hospital discharge, communicate with home care nurses over patient cases, or occasionally contact hospitals concerning revolving-door patients. The study identifies that when GPs represent

patients and their situation in the wider organizational setting, their information is acquired from consulting with patients, using the telephone to follow up with patients, and communicating with home care nurses digitally and occasionally in meetings. Consequently, both the institutionalized practices and spontaneous collaboration of distributed leadership identified in the first article can contribute to continuity in services provision in different situations. While solutions for digital communication are efficient and readily available, the thesis shows that patients' access can be improved, and that the method of communication does not always meet the needs of healthcare professionals in complex patient cases. Beyond the weaknesses of institutionalized practices in representing the needs and context of the patients, there may also exist mismatches between patient needs and expectations and between the resources and competence of healthcare providers.

When GPs occasionally meet with other healthcare professionals, patients, and their next-of-kin, this contributes to relational continuity within the group participating in care provision. As described earlier, the findings also show that GPs consider healthcare service provision to improve after meetings. Findings suggest that the services provided after meetings are more attuned to the user's needs. However, it is unclear whether these situations represent instances where healthcare providers adapt existing skills and resources to better align with the user's needs or if they are examples of local bottom-up innovation experienced as better healthcare by patients.

To achieve informational continuity, findings from the first and third articles show that GPs sometimes include patients and families to achieve patient involvement, autonomy and ensure that the whole picture of information is communicated. GPs and home care nurses communicate central bits of information digitally to facilitate informational continuity. The thesis also identifies room for improvement in informational continuity. As discussed above, patients

are rarely involved in digital communication with healthcare providers; they are sometimes unaware of healthcare providers' communicating about their health; and digital communication is frequently experienced as exclusively from healthcare professionals to patients. Findings from the second article show that GPs or other healthcare professionals only occasionally encourage or teach patients how to contact and collaborate digitally with healthcare professionals. While the second article describes how elderly patients with multimorbidity may have highly individual needs that require a tailored approach for the provision of healthcare to be experienced as integrated, the first and third articles illustrate how organizational rules, leadership beliefs and clinical ethics limit such individual consideration from a perspective of distributed leadership.

In terms of access, patients naturally prefer to be healthy and manage themselves independently of the healthcare providers. Like patients, healthcare providers see a threshold for offering their services and assisting patients. Patient autonomy and self-management offer benefits that contribute to patients' health. This study has found that patients prefer healthcare providers that are responsive and that offer on-demand access to continuity and follow-up when healthy. In similar ways, the system of healthcare providers is geared to ad hoc problem-solving. In debates over integrated care, there are frequent arguments that preventive care must be more viable than expensive hospitalizations for acute exacerbations of chronic diseases (Purdy, 2010; Starfield et al., 2005). While findings from the research contribute to discussion over how distributed leadership can improve and strengthen continuity, it also touches upon debates over preventive measures and what patients can do to improve their health (Dineen-Griffin et al., 2019). Elderly multimorbid patients participating in the PhD study said that they experience diminished physical capacity and wanted to use their limited stamina spending time with family and friends. When considering treatment and lifestyle interventions in preventive care, a central goal

should be to implement measures that are sustainable over time for users with reduced stamina and energy.

For multimorbid patients, the experience of integrated care depends on their ability to influence and contribute to the collective provision of the healthcare services they receive. Given the focus on implementing e-health solutions in healthcare, the lack of participation and influence of patients in digital communication with healthcare professionals is a central finding from the PhD thesis. The extent to which GPs adopt and stimulate patient participation will be important, as lack of access to collective processes limits the influence of patients and their experience of service provision as responsive and adapted to their particular needs. Information asymmetry is not new to the health services. However, patients' ability to acquire knowledge and become participants in their care is increasing (Pandey et al., 2013; Powell et al., 2003). Despite the opportunities that have emerged from the rapid adoption of digital e-health tools by patients and healthcare providers, evaluations and research indicate that digital tools cannot replace traditional forms of healthcare delivery or be the only way to provide healthcare services. Though the patient group in this study may have lower than average e-health literacy, many of the elderly multimorbid research participants said they used digital tools for non-medical purposes.

The use of digital communication tools may depend on each patient's motivation, the time and resources required to access and participate in digital processes. The "digital inverse care law" states that the use of digital solutions is lowest among the patients most in need of care and support (Davies et al., 2021). In the same vein, a review of home monitoring of COVID-19 patients concluded that telephone was more inclusive than other types of follow-up (Vindrola-Padros et al., 2021).

This research aligns with literature suggesting that digital patient-healthcare communication cannot fully reflect each patient's context and

situation. Research suggests that the digital tools used in healthcare should be grounded in the users' context. There is convincing evidence that the local geographical context and organizational structures can affect the implementation of digital tools (Hemmings et al., 2020). Researchers have also observed that digital innovations that are not rapidly used and that have an uptake among all users will inevitably cause health disparities. The elderly with multimorbidity are especially vulnerable (Vaportzis et al., 2017), as are patients with lower socioeconomic status and health disabilities (Watts, 2020).

Given the essential role of context in many conceptualizations of distributed leadership (Gronn, 2002; Spillane, 2005), findings from the PhD thesis highlight a risk when healthcare personnel are insufficiently involved in the patient's situation. In these cases, the PhD thesis has shown that distributed leadership may depend on formalized work processes that lack the ability to represent individual patient needs and context. This finding corresponds to the conclusions of studies on the importance of digital tools being grounded in users' local context and environment (Hemmings et al., 2020).

To end the debate over the role of distributed leadership in continuity in integrated care, this PhD thesis shows the degree to which relational, informational, and managerial continuity depends on whether the tools used and the people involved in patient care are accessible and able to communicate the patient's needs and context. Central questions arising from this PhD thesis concern the role of patients, patient participation in integrated care, and whether integrated care initiatives should focus on the aims of organizations or of patients.

6.2.2 Can distributed leadership contribute to coordination in integrated care?

Discussions of continuity are interwoven with debates over coordination in integrated care and the importance of patients having the right services available when needed. In other words, how can healthcare systems implement distributed leadership to coordinate information, trust, responsibility, and power across various healthcare providers in ways that benefit patients, healthcare workers, and organizations?

In the short run, successful implementation of distributed leadership could come with improvements in relationships and trust likely to improve immediate operational efficiency in integrated care. In the long run, distributed leadership will enhance healthcare workers' ability to understand how their tasks align with those of their collaborative partners. In sum, this will contribute to healthcare workers gaining insights into each other's roles and responsibilities and improving their coordination.

The results from this PhD thesis show that GPs often find themselves as hubs of communication and as coordinators of patients' medical services. The second article, which focuses on the patients' experience, shows that the patients also see the GPs as a hub and as coordinators of the system.

As coordinators of the collective, GPs strive to collect and disseminate information. However, this adds to the workload for GPs who treat elderly recipients of healthcare services and follow-up by specialists inside and outside hospitals. Being the communication hub in a complex system is difficult for GPs, especially when communication is two-way and when there is a need to hold parallel conversations with patients, family members, home care nurses and specialist healthcare providers. Communicating the whole picture within such systems may be especially

challenging for GPs when healthcare workers belonging to different professions participate without being exposed to or challenged by the perspectives of other healthcare workers.

Findings also show that GPs contribute to coordination in integrated care both in institutionalized practices and in their spontaneous collaboration (Braut et al., 2022). Both patterns of collective work have advantages and disadvantages. Where institutionalized practices provide limited flexibility, GPs consider digital communication efficient. Spontaneous collaboration provides more flexibility and better dissemination of information and can sometimes encourage GPs to step up and take a more leading role. The information shared by the patient and healthcare professionals in the course of their spontaneous collaboration enables the GP to establish a more comprehensive understanding of the patient's situation. In addition, a better climate of cooperation and a shared agreement on values and objectives are likely to develop after meetings. This contributes to the ability to adapt the services provided to the local context. In the same way, the third article shows that the frameworks of clinical ethics used by GPs can depend on the GPs' work setting. Institutionalized practices can be guided and governed by informal and formal rules, described as the macro-context of medical culture and organizational structures. Article 1 shows that when GPs collaborate spontaneously with other healthcare workers, the focus of healthcare workers can shift to the micro-context and create a patient experience of integrated care. Furthermore, when collectives of healthcare workers and patients meet in real life, they may take a more pragmatic approach to ethics, one that considers the needs and context of each patient.

In collective work practices and theories of distributed leadership, work can be described as additive or aggregated. In the institutionalized practices identified here, collective work was clearly additive. While collective work may appear more integrated and aggregated in the configuration of spontaneous collaboration, Article 2 described

collective work as more dependent than interdependent (and not fully aggregated). Nor did the PhD thesis identify the configuration of a "shared role space" (Thorpe et al., 2011) among healthcare workers. This implies that the collective synthesis achieved by the distributed practices emerging from the interactions among healthcare workers and patients in the municipality likely focuses on a shared and mutual understanding of the patient case, not on task-sharing or shifting.

The findings point to a need to discuss the primary bottlenecks to effective distribution of leadership in the municipality where this PhD research was conducted. It is plausible that the digital tools and physical meeting spaces that already exist in the municipality are sufficiently developed but underutilized by healthcare workers. Achieving distributed leadership in integrated care may require addressing organizational structures, cultural differences, and different psychological mindsets among healthcare workers and organizations rather than focusing on improving digital tools and work practices.

In leadership and organizational literature, this refers to the development of organizational silos. This phenomenon is characteristic of settings where information sharing across organizations is challenging, and organizations face difficulties in agreeing on mutual goals and sharing a common vision (King & Shaw, 2022; McCartney, 2016). However, organizational silos may also be attributable to differences in geographic location and resource availability. As the three articles are based on interviews with GPs and patients, not on interviews with other healthcare workers, this limits the contribution of the data to the analysis of potential organizational silos in the municipality where the PhD thesis was conducted. However, the presence of organizational silos is evident in situations that involve communication. GPs sometimes describe difficulties in obtaining information concerning recently discharged patients, and patients lack access to digital communication among healthcare workers. However, findings from the PhD thesis also uncover

more profound cultural and value divides between GPs and the organizations they collaborate with. Where such cultural and value differences are more ingrained in the structures between professions and the mindset of those who work there, or within subcultures of professions, the literature uses the term "professional tribalism."

GPs describe two forms of conflicts or professional tribalism. First, there is sometimes a perceived disagreement over who should be patient's primary medical decision-maker. Second**,** there are differences of opinion about how intensive the medical efforts around the patient should be.

In terms of professional power, GPs' autonomy consists of sociological, clinical, and economic components (Lewis & Marjoribanks, 2003; Marjoribanks & Lewis, 2003). Article 2 clearly shows that patients possess leadership beliefs that attribute certain tasks to GPs and other tasks to other healthcare workers. It can be challenging for GPs to be assigned a coordinating role while also being expected to serve as the regular physician for the patient. In a resource-constrained organizational system, such role assignments may channel work to GPs. This can build the professional status of GPs if nothing else is communicated to patients or other healthcare workers.

This PhD thesis finds little evidence of GPs consciously reflecting on or being involved in discussions of their role and professional power. The study did not identify GPs trying to influence or change patients' understanding of healthcare professionals' roles in providing integrated care. If GPs are to contribute to the best possible way of working with other healthcare workers in integrated care, they cannot be elevated over and isolated from other collaborating partners. This may risk a situation where GPs hold a monopoly of knowledge and become supervisors of the work of others. In the municipality where this PhD thesis was

conducted, GPs were separated by professional role and organizational siloing caused by the organization of the healthcare system.

Regarding clinical autonomy, a component of GPs' professional autonomy, GPs see themselves as the coordinators and medical decision-makers in integrated care. While GPs often depend on assessments made in specialist healthcare, especially in the immediate follow-up of patients after hospital discharge, GPs occasionally overrule the decisions made by hospital physicians. According to Article 2, the GPs base this view on years of treating patients and confidence in their belief that they know what is best for them.

Concerning disagreement about treatment intensity, Article 1 and Article 3 show that GPs sometimes consider hospitalized patients to be overtreated and that emergency room visits and admissions pose unnecessary risk for the patients. Some of the arguments relate to the GP's experience with and knowledge of a patient's health and medical history, and arguments that GPs possess tacit knowledge of which and how much medical treatment the patient will tolerate and benefit from.

This is consistent with claims in the literature that physicians in primary healthcare see themselves as "experts in holistic care." In a systematic meta-ethnography of organizational culture in primary care, several of the 16 articles noted that GPs in the UK and New Zealand considered themselves specialists in holistic care (Grant et al., 2014).

Besides culture and the development of GPs' understanding of their role, recent campaigns in primary care provide convincing evidence that there are different views and perceptions among professions. In later years, there have been several campaigns and closer attention to preventing over-investigation and over-medicalization (McCartney, 2016). Another example is the international Choosing Wisely Campaign (Cassel & Guest, 2012), that recommends addressing the potential benefits and

harms of medical tests, treatments and procedures. The campaign recommends encouraging conversations about medical treatments and polypharmacy in the elderly, sometimes called the "deprescribing movement" (Iyer et al., 2008). In the literature, "silo medicine" has been discussed as a cause of polypharmacy and linked to a lack of clarity concerning responsibility and poor communication between healthcare professionals (Oldenburg et al., 2022).

Whether GPs represent anti-profession or anti-science is not established in this PhD thesis. However, the findings signal cultural differences across professional silos in healthcare, with GPs seemingly following what the World Organization of Family Doctors conceptualizes as "action taken to protect individuals (persons/patients) from medical interventions that are likely to cause more harm than good" (Martins et al., 2018).

Concerning financial autonomy, business logic causes GPs to be less involved in the work around the neediest patients. It is clear from Article 2 that patients find it difficult to contact the GPs when they most need to, that these patients often depend on assistance from the nearest emergency room and have needs that often require admission to specialized hospital wards. The study shows that GPs have other work that requires not being interrupted by the patients with the most pressing needs. Norwegian GPs follow incentives to have the highest possible earnings (Halvorsen et al., 2012).

While the semi-structured interviews conducted with GPs do not explore the interests of GPs, some of the findings from the PhD thesis and literature concerning professional interests (Gosden et al., 1996; Sørensen & Grytten, 2003) require us to discuss if there is a culture of “business as usual” among GPs. GPs and other healthcare providers have multiple interests and goals, and achieving continuity may therefore be hard to prioritize. For healthcare providers responsible for providing

various services and meeting multiple objectives, specialization in high-quality provision of single services must be difficult.

From the perspective of distributed leadership, these findings show that there is not always agreement on the collective's goals for the patients. With the DAC frameworks as a starting point, it is shown that there is a lack of agreement on common objectives such as direction and that the collective is not well aligned. When GPs reverse decisions from the specialist healthcare service without conferring with the appropriate organ specialists, this might be due to communication barriers where GPs do not easily reach the relevant specialist, whether it is the GP's own professional opinion and arrogance, or whether the GPs implement and support the patient's autonomous decisions. From a distributed leadership perspective, it is problematic that there are no more meeting places between GP and other physicians, potentially including other healthcare workers and patients, to clarify the factors that contribute to the divide among the various subcultures of physicians.

If GPs want to contribute to distributed leadership, they cannot organizationally separate themselves from other healthcare workers. GPs should instead strive for closer and better digital communication and hold more meetings with collaborating partners, which should also contribute to beneficial collaboration. Concerning the divisions and tribalism among healthcare workers, GPs must be open to new perspectives and to interests other than their own. Financial incentives were introduced as part of the GP scheme established in Norway in 2001. The financial reimbursement will stimulate efficiency among GPs and limit waiting times, a known impediment to access in the past. However, the literature suggests that the optimal blend of funding mechanisms for integrated primary healthcare has not yet been identified (Hanson et al., 2022).

Well-coordinated healthcare organizations may rely on clear structures, a shared vision, and the flexibility that enables the organization to adapt to changes in its environment and the challenges facing its service users. This PhD thesis sees a need for healthcare providers to improve the methods they use to coordinate their expertise and their professional practices and services to the lived experience and context of patients. Hospital doctors have weaker relationships with patients and lack contextual knowledge. Conversely, GPs lack the expertise of specialist physicians. Ideally, a well-coordinated and communicating system of healthcare workers in the municipalities and hospitals will be sensitive to the context of patients and capable of adapting to the user.

Furthermore, healthcare providers specializing in a single field may experience difficulties managing patients' comorbidities. A lack of understanding of these comorbidities and context will make it harder for any healthcare provider to deliver integrated care that is patient-centered and holistic. According to literature, methods of learning that bring medical professions together can provide real-world experience that can help cultivate a holistic understanding, foster collaboration, and enhance patient care and healthcare outcomes (Gilbert et al., 2010). However, bringing in all relevant healthcare providers in every instance of patient-provider interaction or providing patients with regular medical specialists will be resource-intensive and logistically demanding.

More radical suggestions discuss whether the development of new professional roles is necessary to enhance coordination, to defuse potential conflict and establish a cooperative attitude in healthcare. One option is the introduction of hybrid roles with such responsibilities explicitly assigned to them (Aufegger et al., 2020). The potential for new roles or functions like patient coordinators or border spanners is a natural topic for continuing discussion (De Carvalho et al., 2017; Hoeft et al., 2018).

Networks of providers is another possible solution to the challenges related to the points of contact between patients and healthcare providers. It might be possible to link medical centers to create networks of providers associated with specialist healthcare providers serving a geographical catchment area for specific services. Quality criteria and monitoring, financial incentives for participating practices, and accreditations linked to healthcare and academic institutions can be established within such networks. Another possibility is to use local assessment of social determinants of health and community health needs to inform decision-making on how best to allocate healthcare resources. The digital tools already in use may be dynamic and enable the coordinated delivery of advanced services tailored to the specific requirements of communities or users.

From a broader perspective, the education and workflow of GPs and specialist care physicians have not yet been adapted to the everyday life and problems of the users of primary healthcare services. In Norway, as in other developed countries, coverage and access to healthcare personnel is relatively high. However, there is a lack of recruitment of GPs to the primary healthcare service (Gronseth et al., 2020). Some suggest that there is a need to promote prestige and develop professions that have an affinity and knowledge of health in their local communities (Frenk et al., 2010). An alternative option may be enhancing patient participation to improve the patient-centeredness of healthcare provision. However, there may be concerns about "data poverty," where patients in most need of healthcare services fail to benefit from improved access and participation.

The findings indicate resource constraints and the rationing of services by both GPs and home care nurses in the municipality. Digital solutions are used to communicate and solve problems. Having GPs as hubs between patients and specialists can lighten the burden of specialist healthcare providers, a scarce resource in this healthcare system. Holding

physical meetings is time-consuming and depends on multiple healthcare workers finding time to schedule meetings.

6.2.3 Can distributed leadership contribute to comprehensiveness in integrated care?

In integrated care, comprehensiveness refers to the scope and selection of healthcare services available to users. Debates over comprehensiveness in integrated care supplements those on continuity and coordination above. On the one hand, there are various conceptualizations of comprehensiveness in integrated care and differences in the degree to which social determinants of health and social care services are included (de Saxe Zerden et al., 2020; Kodner & Spreeuwenberg, 2002). On the other hand, providing advanced health or social care services in multiple locations can be inefficient due to the cost of equipment and the need for human expertise. Evaluations on the potential of person-centered care, where the patient's answer to the question "What matters to you?" is essential, have concluded that achieving person-centered care will require a "redesign of legislation, organizations, funding, information systems, education and research" (Berntsen et al., 2022).

Traditionally, a large body of research has demonstrated that comprehensive sets of essential community-based healthcare services can lower the mortality rate (Macinko et al., 2003). Concerning comprehensiveness, more recent evaluations have found patients experience flawed communication between specialist care and generalist providers, in advanced care planning and the management of patients with complex health needs (Osborn et al., 2015; Osborn et al., 2014). Nevertheless, evaluations recommend reinforcing primary care and avoiding gravitation to specialist healthcare services, potentially with the use of a referral system regulating access to specialist healthcare services (Seyed-Nezhad et al., 2021; Van Lerberghe, 2008). Some of the

challenges associated with patients' difficulties accessing comprehensive healthcare services can be managed by introducing multi-skilled primary healthcare teams in the municipality. Such teams have also been introduced in Norwegian municipalities where teams provide bundles of health and social care services to users with coexisting psychiatric and substance abuse disorders (Brekke et al., 2021; Trane et al., 2022), and palliative care teams ensure that end-of-life patients can receive advanced care in their homes (Fasting et al., 2022; Kaasa et al., 2007). The teams operating the advanced services in the municipality sometimes take on a more coordinating role, offering more flexible and comprehensive healthcare services to enrolled patients, raising questions of how GPs can be included in and contribute to the service offering (Fasting et al., 2022).

Regarding patients' complex needs and the mix of skills needed from GPs offering healthcare services, studies have demonstrated that healthcare personnel experience both unanswered questions after consulting patients (Del Fiol et al., 2014) and being overqualified for many of their assigned tasks (Frenk et al., 2010; Shipman & Sinsky, 2013). In line with this, research findings indicate that many hospitalizations for exacerbations of common medical conditions among patients with chronic disease or multimorbidity can be prevented through the optimal care and management of primary care teams (Auraaen et al., 2018).

According to an OECD report, improving the ability of primary care teams to keep patients out of hospital can help avoid wasting resources (Purdey & Huntley, 2013; Sanderson & Dixon, 2000). Based on the recognition that expenditures for ambulatory care increase less for countries with a system of gatekeeping GPs, the OECD report discusses the concept of ambulatory care-sensitive conditions. The report suggests that some medical conditions are especially amenable to management by a more comprehensive subset of services offered as outpatient care or in

primary care. Consequently, a more continuous and comprehensive service offering to disease-specific groups of patients can reduce the use of emergency care services and hospitalizations from diabetes (Gibson et al., 2013; van den Berg et al., 2016) and emergency care visits in the case of chronic obstructive pulmonary disease (Lin et al., 2015).

Findings from this PhD thesis show that traditional ambitions of managing patients with multiple and complex needs within the lowest possible level of the healthcare system can represent unrealistic aspirations in the municipality where the PhD thesis was conducted.

The findings show that patients can experience the healthcare service offered by GPs and home care nurses in the municipality as lacking. This is most evident in cases where patients have advanced, subacute, or acute needs or want to achieve holistic goals, including everyday activities in their homes and local environment.

While the provision of healthcare services in hospitals is free, and outpatient and GP consultations are free for patients after reaching the limit of full reimbursement (NOK 3040 per 2023), access and provision of care services in the home is based on the needs of the user and more strictly regulated by the municipalities. If Norwegian healthcare reforms are designed to keep patients at home as long as possible (NMHCS, 2015, 2017), the decision of rationing home care nursing and care services more strictly than other medical services can be discussed.

Naturally, questions over the role of GPs and how they, as first-line providers of healthcare services, can contribute to collective work practices or distributed leadership follow. Although many patients depended on the services provided by their GPs, findings also show that patients sometimes experienced the services as inadequate and as failing to solve their problems. Many patients who participated in this research depended on follow-up from hospitals and specialist physicians. GPs were also unavailable for patients in the afternoon and on weekends.

Comprehensiveness will require healthcare systems and primary care to develop a wide range of expertise and to be able to adapt their skills and services to meet the needs of different patients. It will also require healthcare systems to have the resources to support various services and treatments. When healthcare professionals in the first-line services do not have the expertise, specialist healthcare providers will need to be involved. Whether succeeding with bottom-up innovation and applying scientific knowledge in a local context will require cultural change is a topic for further exploration and development. More radical suggestions involve transforming healthcare professional education curricula and introducing new healthcare professions more rooted in patients' local contexts (De Carvalho et al., 2017; Jakab et al., 2018). In Norway, advanced geriatric nurses are being introduced into the primary healthcare setting (Henni et al., 2018). These specialized nurses bring a holistic perspective to each patient, conducting systematic clinical examinations and assessments. In addition, advanced geriatric nurses act as coordinators and lend professional support to their colleagues (Frenk et al., 2010; Henni et al., 2018).

Concerning comprehensiveness and the need for adapting healthcare services to the local context and the patient's situation, looking to other countries experience from involving other professions in health services provision is natural. In some countries, pharmacists can extend prescriptions without the doctor's approval regardless of the circumstances, and in some countries for temporary periods like the COVID-19 pandemic (Mossialos et al., 2015). In England, clinical pharmacists are available. Some health professionals may have the potential to become health coordinators after receiving the needed training. As an example, paramedics can be the first point of contact in the emergency room; internationally there are many ideas about new and changing roles of health workers (Frenk et al., 2010; Henni et al., 2018). The education of new professions may be focused on patients' non-medical and holistic needs, supplementing the offers of other healthcare

workers. In recent years in Norway, it has been possible to seek the services of a physiotherapist without a referral. The establishment of low threshold contact points for mental health support and lifestyle change are other recent supplements in the Norwegian healthcare system. In terms of the role of social determinants of health and disease, social prescribing can involve personnel who can encourage and link patients with the right balance of local resources and support networks.

6.2.4 Can distributed leadership contribute to solving complex problems in integrated care?

The PhD thesis shows that distributed leadership contributes to integrated care. Institutionalized practices, the most frequently observed configuration of distributed leadership, are used to solve challenges that can be approached in the same way. However, in the literature and in healthcare organizations, distributed leadership has been presented as more than organizational standardization and a way of leveraging the expertise needed to improve innovation, quality, and patient and staff satisfaction in healthcare provision (Beirne, 2017; Martin et al., 2015).

Consequently, a central question in the research on distributed leadership in integrated care is how it can enable healthcare workers to solve challenges in integrated care that require a more advanced and creative multi-professional approach. The following discussion returns to the potential role of distributed leadership in settings where the provision of integrated care requires ongoing collective efforts in solving and resolving wicked problems.

While the DAC framework used in Article 2 considers leadership to locate in the individual it still considers leadership a situation where social and cognitive processes culminate in plural leadership (Dachler & Hosking, 1995; Drath et al., 2008). In contrast, distributed leadership, as theorized by Gronn (2002) and employed in Article 1, is a relational

concept constantly shaped by interaction among informal and formal leaders (Gronn, 2002; Spillane, 2005).

When discussing the ways in which distributed leadership may enable the collective of healthcare workers to capture the context of patients and cultivate flexible mindsets, the central challenge emerging from this PhD thesis was to explore and identify what happens when collectives of healthcare workers change or develop new collective work patterns.

This debate is consistent with the more classic approaches to social practices in leadership (Giddens, 1984; Hosking, 1988). Collective practices can be considered a product of interaction between individuals that cannot be traced directly back to the action of individuals alone (Latour, 2007). The production and reproduction of practices results in the sedimentation of practices and social order. From a social science perspective, holism requires the consideration of social structures in shaping social practices (Giddens, 1984). Social structures are not immune to individual influence; individuals construct and negotiate social structures, shaping them over time and vice versa (Latour, 2007). When exploring leadership as a social process, avoiding a rigid methodologic approach and combining ontologies and methodologies can improve our understanding of how individuals relate to each other and may construct and reconstruct their identities in relationship (Crevani & Endrissat, 2016; Pullen & Vachhani, 2013; Ropo & Salovaara, 2019). In practice, there is room for individuals to shape and evolve the social practices that have been established.

Conceptualizing distributed leadership as spanning organizational borders, the PhD thesis identified an abundance of institutionalized work practices and fewer examples of spontaneous collaboration. Bearing in mind the centrality of situation (Gronn, 2002; Spillane, 2005), and "shared minds" (Gronn, 2002) or "leadership beliefs" (Drath et al., 2008), in theories of leadership as a collective social process, the central

question is whether the configurations of distributed leadership observed relate to the context and "shared minds" of the social situation.

Evidently, the findings of this thesis shows that shifts in configurations of distributed leadership are associated with shifts in the ability of healthcare workers to capture the context and shifts in the ethical framework employed by healthcare workers.

The findings show that the healthcare professionals vary their distance from the patient depending on capacity and the patient's problem. Given the opportunity, healthcare workers try digital solutions that provide more accessible contact but do not always provide proximity to the patient or facilitate the patients' involvement. When the patient's context is institutionalized, it centers on medical information shared among healthcare workers using professional language in digital communication. Patients and healthcare workers communicate but rarely meet physically as a collective. However, Article 1 shows that GPs experience that meeting with patients and healthcare workers improves and contributes to a mutual understanding of the situation. GPs who participate in physical meetings outside their offices deepen their understanding of the patient's situation through exposure to the intricate arrangement of variables that make up the healthcare context (Dopson et al., 2008).

The practice and use of clinical ethics and ethical frameworks are representative of mindsets in this research setting. The findings show that healthcare workers apply different ethical frameworks, and that the ethical framework chosen can depend on GPs' collaborative setting. GPs who consult their patients face-to-face are more likely to practice pragmatic clinical ethics. In contrast, healthcare workers gravitate to a universal clinical ethic in their collective work practices. Consequently, the digital tools and physical meeting space used in collective work processes, their ability to capture and represent the context, and the

psychological mindset employed are linked in distributed leadership in integrated care.

This finding may support the use of integral theories and multi-methodologic approaches to incorporate holism into the discussion of distributed leadership. Research shows that context and cognitive variability are related (Weizenbaum et al., 2020); there are also theories of distributed cognition (Hutchins, 2000) and collective personality (LePine et al., 2011). However, in the following section, the role of context and psychological mindsets in distributed leadership in integrated care will be discussed separately.

Leadership research has a difficult history with context, starting with traits theory and considering leadership as merely inborn (Lord et al., 2017). Later theories of contingency (Fiedler, 1978) and situational leadership (Vroom & Yetton, 1973) have emerged. Beyond the recognition that many of history's greatest leaders would not have been great leaders under different circumstances, research has not yet demonstrated any style of leadership to be superior to any other. Research have shown that context is central to which people are perceived as leaders and to leadership efficiency (Lord & Dinh, 2014).

There is now an abundance of literature on the role of context in leadership (Oc, 2018). In the setting of shared leadership, meta-analyses have demonstrated how increasing task complexity strengthens the relationship between shared leadership and team effectiveness (D'Innocenzo et al., 2016; Wang et al., 2014). Likewise, studies show that physical or social distance can render leadership ineffective (Antonakis & Atwater, 2017; Napier & Ferris, 1993). Several studies have shown that the effect of different leadership styles is blurred where there is distance between leaders and followers (Oc, 2018). This may be of particular importance considering recent and future growth in the reliance on digital communication tools in healthcare.

While there are few studies of effects of temporal developments like asynchronous collaboration in leadership, research has demonstrated negative correlations between time pressure, stress and different measures of leadership performance (Oc, 2018).

Conceptualizing healthcare context as the arrangement of all intervening variables that make up the environment in healthcare (Dopson et al., 2008), the thesis's broad approach suggests that leadership effectiveness will vary across contexts. This implies that leadership disconnected from context is less effective in healthcare.

The relationship between context and leadership has only been examined to a limited extent within health (Porter & McLaughlin, 2006). However, research suggests that management or leadership must change when the context changes in health (Bate et al., 2007). From the findings discussed in this thesis, it is natural to ask whether healthcare workers in general, and especially the GPs who are central in this thesis, should be receptive to developing techniques that are more sensitive to the contextual factors in healthcare. The GPs participating in the study reported having a better understanding of their patients' situation and achieving better collaboration with other healthcare workers after holding meetings. Social capital and local knowledge, or practical wisdom are essential for healthcare workers to redirect interventions instead of mindlessly implementing actions from the top down (Dixon-Woods, 2014). Ways of improving the GPs and other healthcare workers' sensitivity or responsiveness to the patient context in integrated care are not discussed in depth. However, given the perspective of distributed leadership and assumptions that higher-placed leaders do not necessarily know better (Bolden, 2007; Bolden & Gosling, 2006), it seems appropriate to move to digital solutions or other work methods that enable everyone to contribute to the dynamic complexity in patients' contexts.

From discussions over context in integrated care I turn to discussions on the role of psychological mindsets in distributed leadership in integrated care. In Article 1, I use Gronns' "conjoint agency" or "shared mind" in distributed leadership (Gronn, 2002). Similarly, collectively held leadership beliefs, as conceptualized by the DAC framework in Article 2 (Drath et al., 2008), relate to psychological mindsets. In this debate, I also consider the various ethical frameworks that guide GPs in their work to be analogous to their psychological mindsets. Overall, findings show that various "conjoint agency," "leadership beliefs," and ethical frameworks influence the configurations of distributed leadership observed. Article 1 identifies that macro-contextual norms and medical culture influence GPs' contribution to the collective work patterns that emerge. Article 2 identifies that patients hold preconceived beliefs about who should enact leadership. Lastly, Article 3 reveals that the ethical framework, or psychological mindset, GPs abide by in integrated care is influenced by the situation and by the participants in the social group process.

Concerning the numerous ethical frameworks and guidelines, other researchers have acknowledged the need to research multi-professional perspectives on ethics (Koskinen et al., 2022). In distributed leadership, this is relevant as clinical ethics permeates all decision-making in clinical medicine (Carrese & Sugarman, 2006). Findings show that healthcare professionals control which ethical framework to apply, negotiate or adjust to their work process. This finding is not unexpected as core sets of assumptions and values make up the dominant logic and underlies most organizational procedures (Goldstein et al., 2010). In positive psychology, research has demonstrated that an ethical mindset can shape groups' actions and behaviors (Issa & Pick, 2010). To influence the mindsets of individuals and organizations there is a need to understand what the mindset is and how it operates (French II, 2016).

While the PhD thesis explores the lived experience of patients and healthcare workers, it does not explore healthcare workers' or patients' ethical perspectives or psychological mindsets. The management literature describes how systems of thinking can affect and influence how organizational systems emerge and express themselves (Kegan & Lahey, 2016), and similarly, how a developmental framework can be used to assess the strengths and developmental needs of individuals, teams, and organizations (Cook-Greuter, 2004). Situations where norms and rules hold individuals and organizations back in the less mature other-dependent stages and limit the evolution of the social practice that make up leadership can limit bottom-up innovation in organizations (Kegan & Lahey, 2016; Laske, 2006). Leadership development requires the questioning of leadership beliefs and the development of new practices. This can be constrained by established ways of working, or what is described as the mental maps or organizational cognition (Kegan, 1998; Weick & Bougon, 1986). This may require the breakdown of leadership beliefs and testing of new practices and organizations to create a culture that develops or supplements existing webs of beliefs (Drath et al., 2008). The role of psychological mindset in collective processes in distributed leadership in healthcare is under-researched. Research on distributed leadership has suggested that the establishment of new ways of working across professions will require cultural changes that are hard to acquire in the healthcare organization (Beirne, 2017; Currie & Lockett, 2011).

Concerning the need for cultural and psychological synthesis, or mutual understanding, in distributed leadership, one study identified the lack of role and goal clarity, and time pressures due to dual roles, as barriers to distributed leadership in healthcare (Aufegger et al., 2020). Studies highlight leadership competencies and institutional support as necessary macro-organizational conditions (Markle-Reid et al., 2017). Others have noted that distributed leadership in complex organizational environments require a unifying leader to direct network partners and to facilitate concertive actions and conjoint agency (Gutberg et al., 2021),

recommending that inter-organizational networks provide sufficient resources to support individual leaders in cocreating and spreading a vision that enables distributed leadership across personnel and organizations (Gutberg et al., 2021). In integrated care initiatives of a larger scale, using governance structures to ensure input from all stakeholders in decision-making, and reinforce shared accountability in the collaborations, is one viable option (Looman et al., 2021). Similarly, at the organizational meso-levels, trusted project managers can be engaged to bridge healthcare workers and organizations to catalyze the collaboration in the spread of organizational development projects (Looman et al., 2021). Refining this, a study has identified that the reach and scope of top-down approaches to organizational development is limited if this takes the form of ad hoc coaching, as staff engagement events provided by external consultants, or is too focused on levels of senior management (Bussu & Marshall, 2020).

The ability of bottom-up innovation and comprehensiveness in integrated care

Findings show that inventive provision of care and bottom-up innovation is rare in the municipality under investigation. This makes it natural to discuss whether the culture or the value-frameworks of the healthcare organizations allows for bottom-up innovation by healthcare workers. Concerning the operational and clinical setting, and what health workers and patients do, it is natural to question how healthcare workers can become more creative and innovative within risky environments where professional standards govern how work should be done. Research suggests that the inclusion of the healthcare workforce in education and hands-on collaboration within healthcare services can be beneficial (Strasser et al., 2018). Research has also discussed whether healthcare education prepares the healthcare workforce to apply standardized skills in complex settings, and provide healthcare workers with the right

clinical courage needed for future learning and bottom-up innovation (Mylopoulos et al., 2016; Neve & Hanks, 2016).

Article 1 highlights two important aspects of the role of distributed leadership in top-down and bottom-up initiatives in integrated care. First, given the potential for distributed leadership to contribute to bottom-up initiatives, findings show that the digitally written word has a powerful influence on the scope of possibilities and the future course of the patient's journey. GPs are influenced by the discharge notes of recently hospitalized patients. Similarly, GPs instruct home care nurses by digitally communicating patients' future management plan. These top-down instructions are likely to compromise the autonomy of the individual healthcare worker, lead to risk aversion, and limit bottom-up innovation. Second, some of the findings point to creative and inventive use of the digital tools and work practices not being well received by other healthcare providers. This indicate that implementing distributed leadership in ways that contribute to top-down processes (e.g., institutionalized practices) may restrict the contribution of distributed leadership in fostering the swift and individualized measures that patients in integrated care need (bottom-up initiatives) (Harvey et al., 2018; Shaw et al., 2011).

The study also shows that the GPs' attitudes concerning collaboration may contribute to gatekeeping and to the silo mentality among healthcare organizations. While the further development of e-health solutions used for communication is likely to assist the task, a culture change from gatekeepers to care coordinators may be harder to achieve among GPs and specialist healthcare workers. Disruptive actions were observed when the collective of healthcare providers confronted a shared challenge that they could not solve by their established method. Disruptive patterns can be cultivated where conflicts are addressed constructively, innovation is encouraged, and collaboration is fostered.

Beyond reimbursement incentives and regulations, inviting employees to take courses and gain supplemental education are other valid options that can influence and change attitudes and culture in the long run. For example, on-the-job training and research can change a culture and create more responsive healthcare services. A longer-term strategy could focus on leadership initiatives or improve collaboration through study participation, stimulating further education or organizational research. At the same time, broad support is needed at various levels of healthcare services to accomplish the change of culture required to establish new ways of working. There may be a need for improved stewardship capacity to facilitate collaboration among the levels of the healthcare service.

In a wider perspective, Norway's healthcare services are good (OECD, 2023a). However, as there are scarce resources and unmet needs, improvements or developments in healthcare are always sought for and welcomed. This signals that in local communities with diverse patient populations, the provision of comprehensive, holistic, and patient-centered services of high-quality will demand inventiveness from healthcare professionals who must find ways of adapting established best practices to the unique needs of patients and the local context. At best, bottom-up innovation is suggested to improve the user experience, the work environment and efficiency of healthcare services provision (Wodchis et al., 2015). There are indications that bottom-up innovations will require stewardship or the opportunity to influence and build relationships with the relevant agents (Fellows & Edwards, 2016).

Regarding the role of place and context and the potential of bottom-up initiatives in distributed leadership in the municipality setting, Bussu and Marshall (2020) studied distributed leadership as a component of organizational development in a London borough. The study found that some professionals developed spaces that facilitated ongoing dialogue and mutual support among the professionals on the ground (Bussu &

Marshall, 2020). The suggested practical implication from the study were that bottom-up initiatives have greater potential to influence working routines as they enable staff to adopt more collaborative and coordinated ways of working (Bussu & Marshall, 2020).

Brigham et al.'s (2012) investigation of the contributions of midwives, and public health nurses in the pragmatic implementation of distributed leadership in a primary care setting, identified and emphasized the need for local and contextual knowledge. The study concludes that services need to be tailored to local needs when different viewpoints and approaches can be utilized to overcome complex problems.

Although these concepts can be abstract, the actions of healthcare professionals in the municipality where this study was carried out are not. This PhD thesis work is a pragmatic explanation of what healthcare workers do and experience when confronted with everyday tasks and challenges in the provision of integrated care. Nevertheless, the findings relate to the more abstract theoretical concepts of distributed leadership, previous literature on distributed leadership and the lived experience of the healthcare workers participating in the study.

Healthcare workers can contribute to distributed leadership by participating in rule-based institutionalized practices or in spontaneous collaboration that captures the context and adapts their psychological mindsets. Creative and innovative spontaneous collaboration requires overlapping layers of context sensitivity, a flexible mindset, and the digital tools and meeting spaces that support distributed leadership practices.

6.3 Main contributions and implications

The results from this thesis are specific to the municipality setting and the primary healthcare setting where the PhD research was conducted. However, the findings may have broader applicability to the theoretical

development of theories on distributed leadership and to wider healthcare settings.

Theoretical contribution

One of the most significant advantages of using a conceptual framework to study distributed leadership in integrated care is the opportunity for a more general and objective analysis that contributes to a deeper understanding of the complex phenomenon of distributed leadership. Since interviews study the lived experiences of healthcare workers and patients participating in integrated care, a conceptual approach that adds breadth and distance can contribute to objectivity and holism, making the findings more relevant and transferable to settings with similar organizational features.

The main theoretical contribution of the thesis findings show that the tools in use, the experience of the context and the psychological mindsets of healthcare workers and patient are interrelated and dependent on the observed configurations of distributed leadership. From the findings presented here, the following tentative definition of distributed leadership in integrated care is suggested:

> Distributed leadership is the adaptable fusion of nonhuman and human work tools, cognitions, and the situation to achieve goals that cannot be obtained without the integration of all the elements.

Distributed leadership comes with variations in concertive actions and conjoint agency, where the participants of the collective fit the work tools to the cognitions, context, and situations of the participants.

This definition implies that distributed leadership in integrated care is about how healthcare workers and patients modify their work tools with the cognitive capacity of the collective and the context of patients. It also suggests that distributed leadership is most relevant in situations where

complex tasks cannot be solved by less complex work practices or by an individual alone. However, this definition of distributed leadership does not necessarily dismiss the relevance of distributed leadership in settings where the tasks are simpler, or the outcomes less synergistic. Distributed leadership can work within and across organizations with traditional governance and leadership models.

Practical contribution

Although recent white papers have discussed how to recruit, retain, and use healthcare personnel in inventive ways to meet the challenges facing the Norwegian healthcare system (NMHCS, 2023), major changes in the provision of health and care services do not seem to be imminent. From a social constructivist perspective, considering leadership a social group process, identifying, and developing the factors that influence the collective work processes in integrated care will be crucial if they are to change or improve the provision of health and care services.

With healthcare systems increasingly depending on digital tools to improve care delivery, a central question is how to integrate the use of digital tools with the capacity of healthcare workers to produce sets of healthcare services that are adapted to individual patient needs and provide a patient experience of integrated care. This thesis shows a lack of correspondence between the objectives of Norway's recent healthcare reforms, as outlined in white papers (NMHCS, 2015, 2017), and how healthcare services are provided in the municipality. If patients are to live as long as possible in their own homes and receive individualized healthcare services, discussion from a distributed leadership perspective naturally approaches the question of how to provide more advanced healthcare services in the environment where the patient lives. Findings from the study show that it is a challenge for healthcare organizations to move resources and expertise across organizational borders where needed. Where findings give the impression that GPs govern a wide and

comprehensive set of services, they lack the expertise this group of patients frequently require. In contrast, some home care nursing services are more advanced and specialized but experienced by patients as lacking in comprehensiveness. Furthermore, the findings show that resource limitations and needs testing are likely more prevalent for the provision of home care nursing services in the municipality than healthcare services in hospitals.

The findings show that healthcare personnel and competence were not always available when patients need them. In the municipality, there is an obvious need to locate the correct skills and expertise when needed to reduce the need for hospital admission of elderly patients with multimorbidity. While this project does not offer definitive answers, patients and healthcare workers noted that patients were living with complex and sometimes serious medical conditions that were hard to manage out of hospital.

Providing insight into the lived experience of healthcare workers and patients, the findings show that healthcare workers struggle to capture the full context of the patient cases when relying on the digital solutions in use and communication with other healthcare providers. Consequently, the study shows that the proximity, relationships, and connectedness between healthcare workers and patients can be developed in the municipality. Innovating methods of communication, relationship and trust building among healthcare personnel and patients can improve distributed leadership and more seamlessly integrated care in the municipality.

Shared electronic healthcare records may contribute to improvement in information sharing. However, shared electronic healthcare records may serve as top-down instructions limiting the autonomy and flexibility of healthcare personnel in service provision. For shared electronic healthcare records, the challenge will be to support a holistic picture and transmit the tacit, non-digitized information that results from continuous

relationships between healthcare workers and patients. In the municipality where the PhD research was conducted, meetings may be crucial for patients to describe their situation and experience; in the absence of meetings they must depend on healthcare personnel representing their situation in integrated care.

The rule-based institutionalized practices we identified can result in standardization and in work practices that lack professional discretion. The literature on extraordinary large organizations, or hyper-organizations discusses whether those engaged in distributed leadership take part in hyper-management and have lost touch with the everyday work of the profession (Bromley & Meyer, 2021). The results can be increased risk-taking in innovation and erosion of accountability, where the rhetoric creates unrealistic expectations about what hyper-management can achieve.

The study shows that differences and disagreements between the ethical practice of GPs and other healthcare personnel in the municipality are likely to be manageable. However, the research findings align with research that questions the need to develop multi-professional ethical competence (Koskinen et al., 2022). In the municipality, closer integration and dialogue among healthcare personnel may help to resolve some of the tensions that results from opposing actions and objectives of healthcare workers. Identifying institutionalized practices and harmonizing the ethical frameworks and shared mental models that guide the healthcare professionals in the municipality, may be essential to achieve bottom-up innovation and healthcare services experienced as integrated care by patients.

To improve the ability of healthcare workers to understand the nuances of the patient's context and situation, the patient's voice should be better represented in healthcare workers' collective work processes. While patients were able to communicate face-to-face with their GP and home

care nurses they were sometimes excluded from or unaware of dialogue and collaboration among healthcare professionals. Implementing ways of communication that enable all involved parties to represent their views may be essential to communicate the patient's situation. Meetings between the patient and his or her healthcare provider may be more efficient and effective in complex cases that cannot be solved using digital communication tools.

According to Yin (2009), an essential aspect of case studies is to reflect on the implications of the findings and to provide recommendations for policy in ways that go beyond the narrow scope of the study. The findings of the thesis contribute both to discussion over healthcare service provision in the municipality setting in Norway and to the general discussion over the way forward for the Norwegian healthcare system.

6.4 Methodological limitations

This PhD thesis builds on the analysis of qualitative data collected by semi-structured interviews to explore the content of social processes in integrated care. This section discusses the most important methodologic limitations.

Distributed leadership is less explored in healthcare than in other sectors. Together with a lack of extensive theoretical development of distributed leadership, this has encouraged an exploratory perspective in the thesis. The explorative perspective gives rich data but reduces our possibility to generalize the research findings to other research settings.

There are difficulties with access to healthcare data. We experienced this in the recruitment of GPs and patients. This thesis is limited to interviews with 20 GPs and their patients from the same municipality. Several informants from other contexts could have improved the design of the research project.

This use of multiple methods is considered a strength in healthcare research (Doyle et al., 2009). Distributed leadership in integrated care might also be investigated with a survey design. It might, for example, be possible to design a survey to investigate the character and volume of digital and spatial communication and leadership initiatives of various groups of healthcare professionals working together in different municipalities. Obtaining survey data from the elderly multimorbid patients receiving healthcare services may be difficult.

Convenience recruitment was essential to ensure that the informants had experience with integrated healthcare. However, the risks of convenience recruitment can be that the group of participants is not representative of the entire population. Using GPs, their personnel, and nurses working in the local municipality acute ward to recruit patients to participate in the study risks overrepresentation of patients who have a particular interest in integrated care themselves, who are examples of successful or complex care integration, or who belong to a demographic group not representative of the population receiving integrated care.

The collection of a greater variety of data would have been easier to accomplish if the PhD project had followed a formal implementation of distributed leadership in healthcare. Distributed leadership is not a leadership concept in Norwegian healthcare. The methodology and data collection could have been supplemented with quantitative surveys or secondary data.

Regarding interviews, elements of response bias must be expected as healthcare personnel and patients were aware of the other's inclusion in the study. The decision to limit the inclusion of patients to one patient per GP, to use two interviewers, and to discuss the findings with fellow researchers and supervisors was intended to reduce interview bias. The project included both the patients and their GPs. This research design reduces recall bias among the participants.

The interpretation and analysis phase of research data carries a risk of subjectivity bias. Article 3, which explores the ethical work of GPs, is particularly susceptible to interpretation bias due to my experience as a GP. By choosing rigorous qualitative methods for analysis, receiving feedback from supervisors, and participating in and presenting preliminary results at academic congresses, I limited the subjectivity of the interpretation and analysis of the collected data.

The results of qualitative research are difficult to generalize and extrapolate to other settings. In particular, the study's contextualization in the Norwegian healthcare setting, one of the most highly rated healthcare systems in one of the world's wealthiest countries, must raise questions about the relevance of the study findings in other settings (Bryman, 2004). I have provided rich descriptions of the research setting, participants, and methods in this thesis. Where there are elements of organizational isomorphism or other contextual similarities between a given environment and the Norwegian healthcare setting, the findings from the PhD thesis can be used wisely to inform other researchers and practitioners.

In studies of complex social phenomena, researchers with a tendency to search for the answers they expect to find will develop blind spots. Approaching distributed leadership as a phenomenon lacking a clear theoretical definition allows me, as a researcher, some freedom that requires me to be more mindful of some specific types of bias. Again, the involvement of supervisors and participation in academic conferences likely reduced the subjectivity bias in my understanding of distributed leadership.

Using interviews to explore the actions and experiences of healthcare workers and patients may have drawn me to focus on the relationship part of distributed leadership, potentially overlooking what participants

did not do and how power and resource distribution may influence the collective work practices identified. The PhD thesis's focus on organizational decision-making and resource prioritization was limited, and it is impossible to fully explore the organizational resource situation or the incentives of organizations and GPs from the data collected. This can be a methodological limitation caused by the study design and the holistic perspective of the PhD thesis.

Data collection in the PhD thesis work consisted of semi-structured interviews asking broad questions about participants' recollections of recent events and experiences within the healthcare system. This approach invites a conceptual and sociological approach to answering the research questions of the thesis. Recall and response bias, including social desirability bias, are obvious risks. Using observational studies in research on distributed leadership could have been an alternative choice if the intention was to reduce recall and response bias. However, this choice would be resource demanding due to the need for multiple meetings among patients and GPs.

Distributed leadership in this thesis is an analytical concept that is unfamiliar to the participants. If the project had been conducted in the UK where distributed leadership has been formally introduced and implemented in some healthcare settings, health professionals could have had their own opinions about the leadership model. Different actions can potentially contribute to distributed leadership. The decision to employ an emic perspective and ask what participants do without exposing research participants to the analyst and etic terms of distributed leadership was intentional. The decision was based on the hope of avoiding confusion and minimizing the influence of preconceived opinions on leadership that interview participants may hold. However, the decision to explore the lived experience of the research participants through their own language may lead to insider bias where I, as the researcher, uncritically adopt the language of patients and healthcare

workers. This risk overlooking the power dynamics among patients and healthcare workers who may all rely on medical language to describe their needs and activities when participating in collective work processes in integrated care. By asking interview questions directly addressing general leadership, we might have uncovered other aspects of the patient experience with distributed leadership. Taking a strongly descriptive approach focusing on the actions of the research participant and the collective work patterns that emerge, the PhD thesis work may lack normativity thereby limiting its potential to improve the situation of a vulnerable group of patients. Overemphasizing the importance of description and neutral observation in research can lead to a neglect of ethical considerations, inherent values, power dynamics and the contextual understanding of the phenomenon researched. This may also limit the research findings' relevance and transferability to other research fields and sectors where distributed leadership is of interest.

6.5 Concluding remarks and future directions

The premise that those who experience the situation should be positioned to solve the given task is essential in both distributed leadership theories and recent Norwegian healthcare reforms (NMHCS, 2009, 2019). Such aims of individual initiatives and bottom-up approaches to healthcare provision signal that healthcare workers should take leadership initiative and identify creative and innovative ways to solve the tasks they face and consider involving patients more actively in this work. Similarly, changes to the role of patients and their rights in recent decades imply a shift toward involving patients in shaping the healthcare services they receive. In integrated care, patient participation has been recognized as essential to improving the quality of healthcare services (Kvæl et al., 2018), treatment outcomes (Hall et al., 2010) and improving user satisfaction with the healthcare services offered (Dyrstad et al., 2015).

Like those in other countries, Norway's healthcare system exploits the benefits of digitalization in healthcare provision (NMHCS, 2023).

The findings of the first article identified that the collective work patterns GPs participated in contributed primarily to the distributed leadership configuration of institutionalized practices where work appears preplanned, and rule based. Only occasionally did the first article identify GPs' contribution to leadership as a social process where the patient situations, healthcare personnel and resources emerge as an interconnected living system. The findings from the study identified that the institutionalized practices identified were shaped by macro-contextual factors of organizational structures and medical culture, potentially benefitting healthcare workers' way of working and organizational objectives more than the needs of individual patients. Where the distributed leadership practice of spontaneous collaboration was identified, study findings showed that GPs and healthcare personnel established relationships and were more attentive to the local context of individual patients. The findings suggest that when the capacity of the digital tools in use is limited or when there is rationing of healthcare personnel, distributed leadership falls into institutionalized and preplanned configurations constrained by the shared agency of the macro-context.

The first article suggests that future practice and research should focus on GPs and other healthcare workers' understanding of integrated care because vigorous attention to continuity and cooperation among healthcare workers can make integrated care appear as top-down initiatives and organizational standardization. For researchers and healthcare organizations searching for ways of delivering healthcare services that are experienced as integrated care and as responsive to individual needs, findings from Article 1 show a need to explore how healthcare workers and patients can agree on a more contextualized "conjoint agency" disconnected from the wider mission or purpose of

healthcare organizations. There may be room for different forms of integrated care, and organizational objectives are not necessarily incompatible with a patient experience of integrated care. However, healthcare workers' understanding of integration and the tools and practices introduced to obtain integrated care will likely influence and shape healthcare services provision.

Article 2 explores the experience of patients receiving integrated care in the municipality. To better meet patients' individual needs, GPs and other healthcare personnel should provide more flexible and holistic healthcare services that empower patients and promote their involvement in collective processes in integrated care, especially when it is difficult for those patients to participate. Furthermore, findings show that GPs and other healthcare workers in the municipality should commit more to assisting patients in solving their problems closer to their own homes. The second article finds that patients hold leadership beliefs concerning where, how and by whom healthcare services should be provided. The identified leadership beliefs and how to explore or influence them in practice are the most important future research opportunities arising from Article 2.

Article 3, which was partly motivated by the findings of Article 1, identifies that participation in collective work practices can influence the ethical framework and standards by which GPs conduct themselves when contributing to integrated care. Findings show that GPs focus on fulfilling the duty of non-maleficence, achieving patient autonomy, and securing a fair distribution of scarce healthcare resources when participating in distributed leadership in integrated care. Future research opportunities include the development of tools to assist the challenging task of patient autonomy in the collective provision of healthcare service and the identification of ways of exploring and reconciling potential divergent ethical norms or perspectives across healthcare professions and organizations.

The thesis consists of three articles that provide different perspectives on how distributed leadership unfolds in integrated care and contribute to an improved understanding of distributed leadership in integrated care. As discussed above, the findings show that changes in the ability to capture the context and shifts in the ethical frameworks employed by healthcare workers are associated with shifts in distributed leadership configurations.

Equating the leadership beliefs of patients and the different ethical frameworks of healthcare workers to psychological mindsets, the analysis in this thesis concludes that the digital tools and physical meeting spaces used in collective work processes, their ability to capture and represent the context, and the psychological mindset employed in distributed leadership are interrelated in integrated care.

Achieving the synergistic effects of distributed leadership in integrated care will require researchers to identify methods that can fuse the tools, resources and psychological mindsets used with the situation without group composition or professional belongings undermining the distributed leadership practices that emerge.

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Appendix: Recruitment materials (Translated from Norwegian)

Recruitment material for patients:

REQUEST FOR PARTICIPATION IN RESEARCH PROJECTS

LEADERSHIP AND TECHNOLOGY FOR AN INTEGRATED HEALTHCARE SERVICE

A STUDY ON LEADERSHIP, TECHNOLOGY, AND CAREER CHOICES IN HEALTHCARE

We would like to invite you to participate in a research project conducted at the University of Stavanger (UiS) in collaboration with Helse Stavanger in the 2019 – 2023 period. The data collection will take place from Autumn 2019 to Spring 2020.

The combination of an ageing population, higher incidence of chronic diseases and more treatment options has meant that older patients receive more and longer-lasting health services than before. The challenges that arise in collaboration and coordination of health services is something that patients and employees in the health service are aware of. In the autumn of 2019, three PhD students at UiS and Helse Stavanger will carry out the research project "Leadership and technology for an integrated health service". The project will be carried out in the primary health service and focus on leadership, use of modern communication technology and nurses' career choices within the home care services. The project plans to interview patients, their community nurses, and GPs.

WHAT DOES THE PROJECT ENTAIL?

Everyone participating in the study will be interviewed at the start of the study. The interview is estimated to last approximately 1 hour. We will also conduct a shorter interview when the study ends. Audio recordings will be used during interviews.

POSSIBLE ADVANTAGES AND DISADVANTAGES

By participating in the research project, you, as a patient, can contribute to increasing knowledge about leadership, interaction and the use of health technology to achieve a more integrated health service.

Participating in the study means you must set aside time for an interview on two occasions while the project is in progress. There is no risk associated with participating in the project, but interviews that concern health conditions may be perceived as intimate and sensitive for some.

VOLUNTARY PARTICIPATION AND THE POSSIBILITY TO WITHDRAW ONE'S CONSENT

Participation in the project is voluntary. If you wish to participate, sign the declaration of consent on the last page. You may withdraw your consent at any time and without giving any reason. This will not affect your further treatment. If you withdraw from the project, you can request that the collected information be deleted unless the information has already been included in analyses or used in scientific publications. Suppose you later wish to withdraw or have any questions about the project. In that case, you can contact project leader Professor Marianne Storm by phone 51834158 or email marianne.storm@uis.no.

WHAT HAPPENS TO YOUR INFORMATION?

The information registered about you may only be used as described in the purpose of the project. You have the right to access what information is registered about you and the right to have any errors in the information registered corrected. You have the right to access information about the security measures taken to protect when processing the data.

All information will be processed without your name, national identity number, or other recognizable details. A code links you to your information through a list of names. Only the project group consisting of Professor Aslaug Mikkelsen, Professor Marianne Storm and PhD candidate Guro Hognestad Haaland, Hilde Marie H. Fjellså and Harald Braut have access to this list.

The information about you will be anonymized and deleted five years after the end of the research project.

ECONOMY

The project group belongs to the University of Stavanger and Helse Stavanger, where research on coordination and patient safety in health services has been a central research topic for several years. The project is funded through research grants from the Ministry of Education and Research and the Stavanger Regional Health Authority. Commercial actors are not affiliated with the project.

APPROVAL

The Regional Committee for Medical and Health Research Ethics has assessed the project and has granted prior approval [Insert case no. at REK (20xx/yyyy]

Under the new Personal Data Act, the data controller at the University of Stavanger and project leader, Professor Marianne Storm, have an independent responsibility to ensure that the processing of your information has a legal basis. This project has a legal basis in Article 6 (1a) and Article 9 (2a) of the General Data Protection Regulation and your consent.

You have the right to complain to the Data Inspectorate about the processing of your information.

CONTACT INFORMATION

If you have any questions about the project, you can contact Professor Marianne Storm by phone 51 83 41 58 or email marianne.storm@uis.no.

The data protection officer at your institution is available via personvernombud@uis.no.

I AGREE TO PARTICIPATE IN THE PROJECT AND TO MY PERSONAL INFORMATION AND MATERIAL BEING USED AS DESCRIBED

I have received information about the study and am willing to participate.

Place and date

Participant's signature

Participant's name in printed letters

Recruitment material for GPs:

REQUEST FOR PARTICIPATION IN RESEARCH PROJECT

LEADERSHIP AND TECHNOLOGY FOR AN INTEGRATED HEALTH SERVICE

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WHAT DOES THE PROJECT ENTAIL?

Everyone participating in the study will be interviewed at the start of the study. The interview is estimated to last approximately 1 hour. We will also conduct a shorter interview when the study ends. Audio recordings will be used during interviews.

We ask you to provide information about the study to one or more patients on your GP list based on the following criteria:

- Older than 65 years
- Are multi-morbid with two or more diagnoses (WHO, 2015)
- Do not have comorbidities that impair the ability to participate (i.e., cognitive impairment or psychotic conditions)
- Have been hospitalized in the last 12 months
- Have been granted and receive home care nursing services
- Using four or more regular medications

If you wish to participate in the study, we ask that you present the research project to relevant patients at your next office contact so that one of these can be included in the study.

POSSIBLE ADVANTAGES AND DISADVANTAGES

By participating in the research project, you, as a doctor, can contribute to increasing knowledge about leadership, collaboration in health care, and the use of health technology to achieve a more integrated health service.

POSSIBLE ADVANTAGES AND DISADVANTAGES

By participating in the research project, you, as a doctor, can contribute to increasing knowledge about leadership, collaboration in health care, and the use of health technology to achieve a more integrated health service.

Participating in the study means you must set aside time for an interview on two occasions while the project is in progress. There is no risk associated with participating in the project.

VOLUNTARY PARTICIPATION AND THE POSSIBILITY TO WITHDRAW ONE'S CONSENT

Participation in the project is voluntary. If you wish to participate, sign the declaration of consent on the last page. You may withdraw your consent at any time and without giving any reason. If you withdraw from the project, you can request that the collected information be deleted unless the information has already been included in analyses or used in scientific publications. Suppose you later wish to withdraw or have any questions about the project. In that case, you can contact project leader Professor Marianne Storm by phone 51834158 or email marianne.storm@uis.no.

WHAT HAPPENS TO YOUR INFORMATION?

The information registered about you may only be used as described in the purpose of the project. You have the right to access what information is registered about you and the right to have any errors in the information registered corrected. You have the right to access information about the security measures taken to protect when processing the data.

All information will be processed without your name, national identity number, or other recognizable information. A code links you to your information through a list of names. Only the project group consisting of Professor Aslaug Mikkelsen, Professor Marianne Storm and PhD candidate Guro Hognestad Haaland, Hilde Marie H. Fjellså and Harald Braut have access to this list.

The information about you will be anonymized and deleted five years after the end of the research project.

ECONOMY

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You have the right to complain to the Data Inspectorate about the processing of your information.

CONTACT INFORMATION

If you have any questions about the project, you can contact Professor Marianne Storm by phone 51 83 41 58 or email marianne.storm@uis.no.

The data protection officer at your institution is available via personvernombud@uis.no.

I AGREE TO PARTICIPATE IN THE PROJECT AND TO MY PERSONAL INFORMATION AND MATERIAL BEING USED AS DESCRIBED

I have received information about the study and am willing to participate.

Place and date	Participant's signature
	Participant's name in printed letters

PART TWO

Article I - III

Article I:

Braut, H., Øygarden, O., Storm, M., & Mikkelsen, A. (2022). General practitioners' perceptions of distributed leadership in providing integrated care for elderly chronic multi-morbid patients: A qualitative study. *BMC Health Services Research*, *22*(1), 1-12.

Article II:

Braut, H., Storm, M., & Mikkelsen, A. (2023). A qualitative study on distributed leadership in integrated care: exploring the experiences of elderly multimorbid patients with GP collaboration. *Journal of Multidisciplinary Healthcare*, 3167-3177.

Article III:

Braut, H., Storm, M., & Mikkelsen, A. (2023). GPs' experience of ethical work in integrated care for older adults with multimorbidity. Manuscript submitted to *Scandinavian Journal of Caring Sciences*.

Article I

BMC Health Services Research

RESEARCH

Open Access

General practitioners' perceptions of distributed leadership in providing integrated care for elderly chronic multi-morbid patients: a qualitative study

Harald Braut[1*], Olaug Øygarden[2], Marianne Storm[3,4] and Aslaug Mikkelsen[1]

Abstract

Background: Distributed Leadership (DL) has been suggested as being helpful when different health care professionals and patients need to work together across professional and organizational boundaries to provide integrated care (IC). This study explores whether General Practitioners (GPs) adopt leadership actions that transcend organizational boundaries to provide IC for patients and discusses whether the GPs' leadership actions in collaboration with patients and health care professionals contribute to DL.

Methods: We interviewed GPs ($n = 20$) of elderly multimorbid patients in a municipality in Norway. A qualitative interpretive case design and Gioia methodology was applied to the collection and analysis of data from semi-structured interviews.

Results: GPs are involved in three processes when contributing to IC for elderly multimorbidity patients; the process of creating an integrated patient experience, the workflow process and the process of maneuvering organizational structures and medical culture. GPs take part in processes comparable to configurations of DL described in the literature. Patient micro-context and health care macro-context are related to observed configurations of DL.

Conclusion: Initiating or moving between different configurations of DL in IC requires awareness of patient context and the health care macro-context, of ways of working, capacity of digital tools and use of health care personnel.

Keywords: Distributed leadership, Shared leadership, Integrated care, Multimorbidity, Home care

Background

The aging population and the growing numbers of frail elders living at home has made the provision of integrated health care services a challenge in high-income countries [1, 2]. Research has shown that collective forms of leadership that extend across people and organizations can help align and coordinate health and care service networks with the needs of complex patients [3, 4]. The aim of this study is therefore to investigate the leadership actions General Practitioners (GPs) adopt to collaborate with patients and other health care professionals to provide integrated care (IC) for complex patients, and whether this form of leadership can be understood to be "leadership across the system".

IC can be defined in different ways [5, 6]. We will, however and for the purpose of this study, define IC as "initiatives that seek to improve outcomes for those with (complex) chronic health problems and needs by overcoming issues of fragmentation through linkage or

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coordination of services of different providers along the continuum of care" [7].

IC requires leadership across sectors and institutions, all with different funding streams and information and communication systems, which can create barriers [3, 8]. A review of IC frameworks found that concepts of leadership and governance are addressed by the majority of frameworks [9]. Research into whether and how such leadership plays out in everyday practice is, however, limited [4]. What are the underlying complexities of effective implementation and what are the causes of the outcomes observed, beyond the statement that "leadership matters" [10]?

Leadership is commonly defined as "a process whereby an individual influences a group of individuals to achieve a common goal [11]". The focus in Distributed Leadership (DL) is, however, on processes in which two or more people (not necessarily all members of an organization) display leadership [12, 13]. DL therefore describes the capacity of an organization and individuals to share responsibility and competence in a given situation and within the environment in which they operate. DL is based on the view that different types of expertise are an advantage in the management of complex tasks, which cannot all be dealt with by one health care professional alone.

In this study DL is understood as a holistic, social process and group attribute [12]. Leadership is applied where the required expertise and motivation is located, this form of leadership being less affected by organizational roles and structures. The health care sector has been described as a "special arena" for DL [14], in which it is suggested professional and institutional interests play a more significant role [15].

Pure DL is characterized by the presence of both concertive action and conjoint agency [15–17]. Concertive action is found in situations where there is (1) spontaneous collaboration between stakeholders who each contribute their expertise to the solving of a problem, (2) a "shared role space" that emerges, in which two or more people share a mutual understanding, a trust and a dependency on each other, and (3) an institutionalization of the leadership practices that result from the learning acquired from (1) and (2) [18]. Conjoint agency means that a "shared mind" has been developed, and that leadership practice directions align.

This study contributes to the literature on IC by investigating whether and how GPs adopt leadership actions that transcend organizational boundaries when providing IC to elderly patients with multimorbidity. We examine the structures and the tools used in interactions between GPs and other health care professionals, between for example hospital specialists, physiotherapists, home care nurses and municipality emergency room staff. We also examine whether the GP's way of working with health care professionals and the GP's actions contribute to DL in the treatment and care process. The research questions of this paper are, based on this, therefore; What type of leadership actions do GPs adopt in the collaboration with other health care professionals and the patient in order to provide IC? Do these leadership actions contribute to DL? and Can the collaboration between GPs, patients and other professionals be characterized as DL?

Methods

Setting

This study is part of the research project Leadership and Technology for Integrated Health Care Services conducted in a Norwegian municipality of approximately 80,000 residents.

In the municipality, patients receive primary health care from a variety of GPs during office-hours (Monday to Friday) and acute and essential treatment from the local emergency room open 24 hours a day. Patients are diagnosed and managed in GP practices or the local emergency room and referred to the local inter-municipal acute ward or the nearby regional university hospital when required. Home care services are organized into district units staffed by nurses and aides, who provide personal care, nursing, medical services, and terminal care.

Home care nurses and GPs communicate via digitally provided text correspondence, telephone, or meetings in office hours, and nurses and GPs receive copies of electronic health care records from the emergency room and of discharge notes after hospitalization. GPs can communicate digitally and via phone with specialist doctors at the hospital.

The Norwegian Coordination Reform of 2012 [19, 20] and the National Health and Hospital Plan 2020–2023 [21, 22] reflects challenges that are common to health care systems in Western countries with aging populations [3, 23]. The reforms recognizes that the number of elderly people is increasing, and aims to create a more cohesive and coordinated health care service [19, 20], adapted to patients level of health literacy, and with patients as active participants in their own health and treatment [21, 22]. The Norwegian Coordination Reform primarily introduced economic incentives and legal measures to transfer tasks from specialist health care to the municipalities, to strengthen preventive care in the municipalities, and to streamline specialist health care services to secure the best possible use of health care resources [19, 20].

Concerning the potential role of DL in IC in the Norwegian setting, analysis of Norwegian reform initiatives

have emphasized that a "mediating structure" is lacking in the Norwegian health care system where primary and secondary health care services are physically separated, have different professional cultures and belong to different administrative levels [24]. Recently, health care communities have been introduced to ensure GP and user representation at all organizational levels, and to support overarching goals of creating the patients' health care service within a sustainable health care system [25]. Patients should, in this system, be listened to, should be enabled to take active part in health and treatment, and resources should be equally distributed between patients based on the common values of fairness, equality and human dignity [22].

Design, recruitment, participants and ethics

We apply the Gioia methodology, a systematic approach that allows researchers to study dynamic phenomena and processes with "qualitative rigor", to this interpretive case study [26]. As the Gioia methodology follows an interpretive logic where social reality is viewed as socially constructed and made meaningful by our understanding of events, the research group considered the methodology to be well-suited to the study of DL as a group-level social process.

The Gioia methodology is inductive, and primarily involves reporting the voices of knowledgeable informants (data) in tandem with the voice of researchers (theory) [26]. This can generate data-to-theory connections, and improved understanding of the processes under study in ways that "give meaning to both people living that experience and social scientific theorizing" [27].

In practice, the methodology is a three-step analytical procedure where the first step of coding is informant-centric and consists of revealing first orders codes, which are derived from the words, phrases and lived experience of individual participants [28, 29] and grouped together into first order concepts. The second stage, which is researcher-centric, consist of combining the identified first order concepts into second-order themes that relate to existing theory and research [26]. The third and last stage of the analytical procedure is to refine the second-order themes and identify the overarching aggregate dimensions emerging from the second order themes [26].

Being informant-centric the Gioia-methodology is well suited to assist researchers in grounded theory development. However, as commonly observed in research literature, our professional backgrounds and familiarity with previous research on DL and IC disposes us to apply the Gioia methodology in more "abductive" than "inductive" ways [30]. The background of the project group members are complementary and multidisciplinary, members possessing work and academic experience from human resources, leadership, medicine, and nursing.

The administrative leader of the Division of health and social care services in the municipality was contacted to gain permission to conduct the study in the municipality. Formal contracts of cooperation were entered into with the municipality for the duration of the research project period (2019–2020). The chief medical officer in the municipality was contacted to gain access to the GPs in the municipality.

A total of twenty GPs were recruited. A sample size of 15–30 participants is judged sufficient in qualitative research and data saturation was reached after about 15 interviews [31, 32]. GPs were approached directly ($n = 24$) by phone, at their practice or introduced to the research project via a professional meeting were the majority of the 70 GPs in the municipality attended. Twelve of these GPs identified patients from their practices who were recruited in tandem with the GP. As it was acknowledged that patients were frequently referred to the inter-municipal acute ward from the local emergency room, we approached the leader of the inter-municipal acute ward who established contact with two nurses who recruited 8 patients from the acute ward. We approached the GPs of these patients after the patient had consented to participate in the study. We approached 24 patients, 20 ultimately participating in the project. When both the patient and his or her GP consented to participate in the study, administrative personnel from the municipality health care services helped identify and recruit the home care nurse most familiar with the patient.

The patients, their GPs and home care nurses were connected to each other as a result of working in groups of three in the municipality. This means that this represents a purposive sampling of participants. We recruited patients who were at least 65 years of age, had been diagnosed with two or more medical conditions [33], received treatment with at least four medications, were enrolled with home care services and had been hospitalized within the last 12 months. Patients suffering from severe dementia or other medical conditions that made recruitment or participation difficult were excluded.

The research project was exempt from formal review by the Regional Committee for Medical and Health Research Ethics in Norway (ref. no. 2019/1138) as the research project was considered health service research that did not intend to generate new knowledge about health and disease. The research project was registered and conducted in accordance with the protocol of the Norwegian Centre for Research Data (ref. no. 228630). Written leaflets and oral information were provided to the municipality acute ward, GPs and nurses, to ensure that all recruited patients understood the research related

information. All participants were informed that they could access the data collected and that they could withdraw from the study. Informed participation consents were obtained from GPs, and informed consents and disclosures of confidentiality were obtained from their patients, all being obtained prior to the GP interviews. All informants were assigned a study number to secure confidentiality. One of the 20 patients who approved disclosure of confidentiality before the GP and home care nurse interviews, later withdrew their consent of disclosure, but did not withdraw their participation. The data was therefore adjusted accordingly.

Data collection

Semi-structured interviews with GPs were conducted by two PhD students (HMH, HB). The two are cumulatively experienced in nurse and GP work. The interview guide primarily used open ended questions to explore (i) the cooperation between GP and patient, (ii) the role of other health care professionals in managing the patient, (iii) the course of the patient's last hospitalization and discharge and (iv) the expected future needs of the patient. The interview guide was influenced by the multidisciplinary background of the research team. The team held meetings during the project period to evaluate ongoing interviews and insights gained.

Semi-structured interviews were conducted with twenty recruited GPs (45% male) aged between 27 and 65 years (M = 43.5 years, average 45.1 years). Recruited GPs primarily provided their services from group practices (N = 19) and had 800–1600 enlisted patients (M = 1200, average 1165). Three GPs were locum tenens. Interviews generally lasted 1 h (32 min – 1 hour 22 min) and were carried out between October 2019 and January 2020. Interviews were conducted face-to-face with the GP in his or her practice. One GP interview was, however, conducted at the GP's home office. All interviews were audio recorded.

Data analysis

Interviews were transcribed verbatim, de-identified and imported into the social research software Nvivo (version 12) for data analysis.

Data analysis was performed by the first author (HB) under the supervision of one of the co-authors (OØ) who is experienced in the selected methodology. Initial analysis was performed by the first author (HB). This consisted of coding each interview separately, first order codes being revealed from interview objects, words and phrases [28, 29]. Interviews were reread a number of times and meetings were held between HB, AM, MS, and OO to discuss and agree on emerging findings. Codes that were in essence similar were categorized into the same first order concept (Table 1). We also began uncovering and mapping connections between them whilst carrying out first-order coding. This first stage of coding is informant-centric. There was therefore no pre-defined coding tree. A broad and open approach was, however, applied to leadership and to the questioning of what actions GPs take to get things done when interacting with patients and other health care professionals. The theoretical groupings that emerge from this process represent second-order themes (Table 1) that, in contrast to first-order concepts, are researcher-centric [26]. Identification of aggregate dimensions from second order themes (Table 1) enables the development of a theoretical framework that builds on the findings of our data structure (Fig. 1).

Results

We, from our data, identified 23 first order concepts and seven second order concepts (Table 1). We subsequently identified that GPs provide IC for elderly multimorbid patients through three processes. These are (A:) the process of creating an integrated patient experience, (B:) the workflow process and (C:) the process of maneuvering organizational structures and medical culture (Fig. 1).

These three processes are presented in the following with findings from our emerging data structure presented in Fig. 1, translated verbatim extracts that show how we arrived at our findings being presented in Table 1 and the appendix (Table A1).

A: process of creating an integrated patient experience

The 2nd order theme "Process of creating an integrated patient experience" captures the context-near 1st order concepts that the GPs are involved in and use, to acquire an understanding of the current situation, to adjust interventions to individual holistic patient needs and create continuity for the patient.

We see, in our data, that GPs primarily participate actively in critical situations or changes where there is a great deal of activity around the patient, e.g. shortly before and after patient hospitalization. Digital communication is in place. GPs are, however, viewed as possessing the "complete picture" and the most up-to-date information, especially where information is old, not digitalized, or tacit (Fig. 1).

The 1st order concept "GPs establish plan for future direction" (Fig. 1) shows GPs investing effort in communicating clearly to ensure "all know". GPs often consider that their assessment and digital correspondence represents the true medical situation, and also the management plan for the foreseeable future.

Table 1 Exemplary quotations and the 1st order concepts, 2nd order themes and aggregate dimension identified from data analysis

Aggregate dimension: Process of creating an integrated patient experience	**2nd order themes**
1st order concepts with exemplary quotations and actions	
GPs interpret situation based on discharge notes - It's not always as easy as this. Sometimes I need to call and ask them to send (…) an unfinished discharge note so that I can understand what's been done.	**GPs cooperate with hospitals**
GPs exclude other organizations (hospital) to solve problem in local community - There is not much more they can do, there are no more investigations to carry out. So, it is (medical condition) management supervised by me.	**GPs cooperate with hospitals**
GPs seldom advise hospitals except for complex and frequently hospitalized patients - Then, I write that if they cannot do anything with it now, I think it will be ok and that he can leave and go home and be called on later for follow-up.	**GPs cooperate with hospitals**
GPs decouple in highly specialized and periphery topics - Dialogue is often from them to me. (…) I don't have much to contribute when hospitalized. Then, responsibility of treatment is transferred to the hospital.	**GPs cooperate with hospitals**
GPs lack information and is not able to get complete picture in office-visits - I only see him in the office setting. (…) So, it is obvious that he may have needs that I don't see, and that doesn't come up during our conversations.	**GPs work for holistic focus**
GPs biased towards taking control of medical matters - I messaged home care nurses, informing them that now we will do it this way, and that they can provide the medicine (…) until it comes from the pharmacy.	**GPs work for holistic focus**
GPs establish plan for future direction - They don't know what to do. So, that is why they contacted me now. We have established a plan now, and then we will have to see if it goes well (…).	**GPs create continuity**
GPs and patients in follow-up translate discharge notes to context - We summarize and read what's been done at the hospital, and they can ask questions if there are any from the patient's perspective.	**GPs create continuity**
GPs act as information hubs - Home care nurses are my extended arm to the patient, and (…) alert me if anything is needed. Thus, it is my responsibility to be a patient coordinator.	**GPs create continuity**
GPs cooperate better when they have a professional relationship with home care nurses - For this patient I know the people who provide him services, therefore it is easier to communicate and agree on things.	**GPs create continuity**
GPs experience common understanding in closer working relations - (…) I don't need to use the telephone much in communication with home care nurses as they understand the patient's complexity and needs.	**GPs create continuity**
Aggregate dimension: Process of workflow	**2nd order themes**
1st order concepts with exemplary quotations and actions	
GPs control and follow-up cooperation (due to limited trust) - Then, I guess I secure my work more (…) and, if highly important, ask them for a response and make a reminder for myself.	**GPs build internal coherence**
GPs trust other health care professionals (home care nurses) - Because they see her/him often, they have a greater ability to assess how s/he is doing than me who doesn't see her/him that often.	**GPs build internal coherence**
GPs pleased with ways of working (suits resource use, business model and logistics?) - Yes, because I know what's going on up there, and if s/he needs help with anything, I may be able to contribute, If I get to know we can find solutions.	**Reactive and uniform ways of work**
GPs work in stepwise manner - No, there is no need (for meetings). We talk sometimes (telephone) at the beginning, when things need to be clarified, otherwise everything has been digital.	**Reactive and uniform ways of work**
GPs experience deteriorating cooperation when breaching established ways of working - It may be that home care nurses are involved with other GPs who take less responsibility than I do, but I think it's wrong that I should have an even bigger workload because I try to do a good job.	**Reactive and uniform ways of work**
Aggregate dimension: Process of maneuvering organizational structures and culture	**2nd order themes**
1st order concepts with exemplary quotations and actions	
GPs ask for home care services, which cannot be ordered - When (…) discharged from the hospital I experienced her/him as being still very worn out, so I sent a digital message asking them to adjust the care services.	**GPs maneuver organizations**
GPs delegate some tasks to home care nurses - S/he had a permanent urinary catheter and I advised it to be changed. So, they have changed it every other month or so.	**GPs maneuver organizations**

Table 1 (continued)

GPs use other organizations (hospitals) to help initiate services in the local community - I hope s/he can have a higher level of care. I hope the hospital have taken care of that now. Because it's much harder for me to get it done.	**GPs maneuver organizations**
GPs causes home care nurses to withdraw from cooperation when proactive or controlling - I have the impression that if I'm not that proactive, the home care nurses will be more attentive, but it would be nice to have some communication back and have a dialogue (when I'm proactive).	**GPs maneuver organizations**
GPs support and see patient autonomy as central - Thus, we don't do much other than take care of him/her, sort of. But we try to make him/her accountable for his/her own health.	**GPs maneuver medical culture**
GPs support patient self-management - No, patients are their own coordinators as long as they are "reasonably well functioning".	**GPs maneuver medical culture**
GPs see themselves as main point of contact and responsibility - I think it is nice that everything is in one place and that responsibility is held by as few as possible.	**GPs maneuver medical culture**

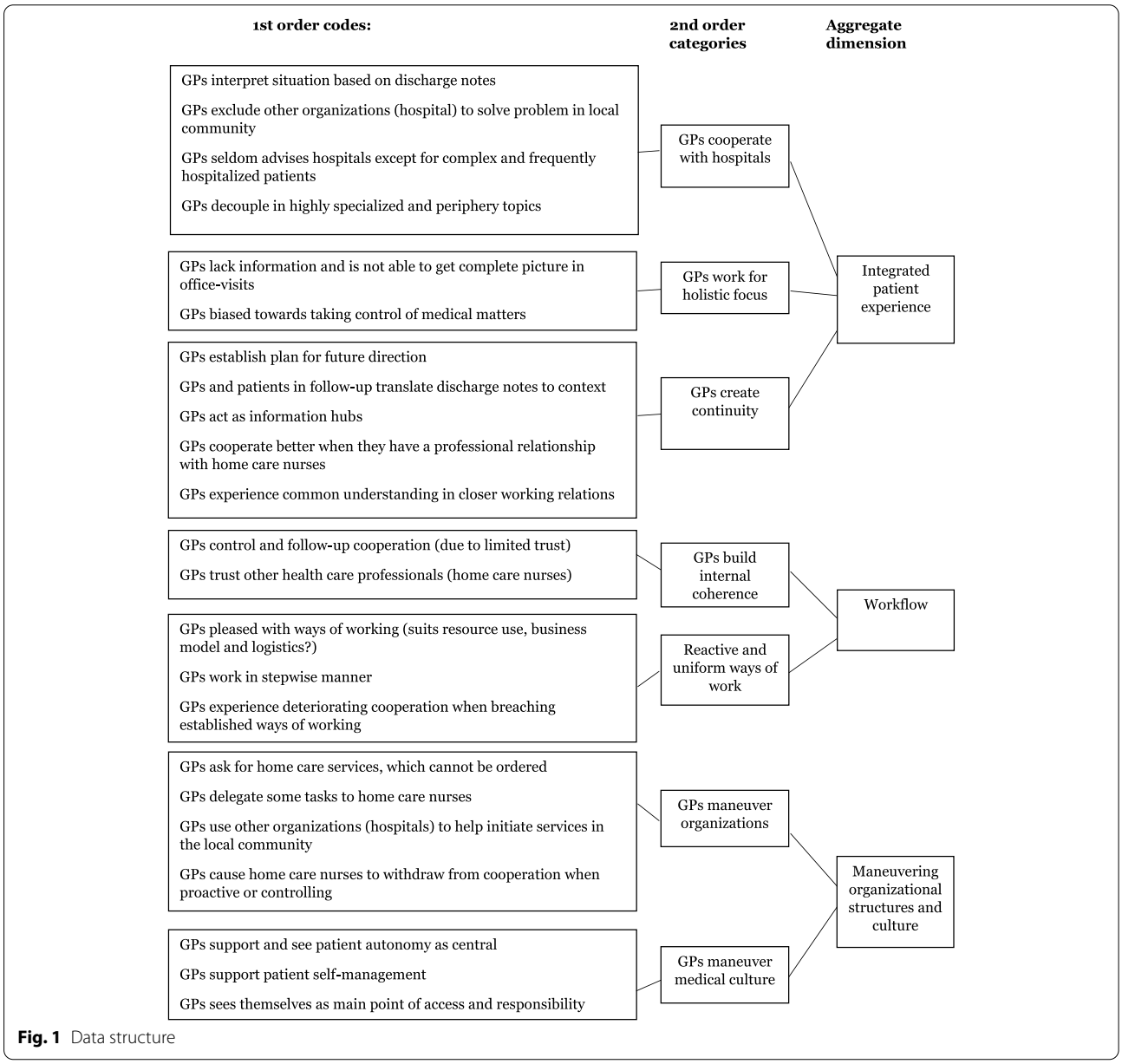

Fig. 1 Data structure

Maybe I need to be more careful, to be even better at writing health care records, so everyone can understand what I write.

GPs express that they, through receiving and transferring information, act as a central information hub for the patient. They see themselves, in situations where opinions and views of different medical specialists diverge, as being responsible for prioritizing and setting directions for treatment in clinical day-to-day practice. GPs apply a pragmatic approach. They, when decisions are to be made and tasks are to be carried out within their own core area of competence, balance their knowledge of the patient's history, their own professional experience, and the views of other health care professionals (e.g. hospital specialists). GPs often, however, leave decisions and tasks to the specialist where treatment and follow-up involve highly specialized decisions or equipment. GPs commonly, when needed, communicate digitally or by telephone with specialists for advice.

Hospital discharge notes exert an influence on GPs and patients. The GP and the patient try however, during follow-up, to adapt their course of action to the patient's history and most likely future, within the possibilities and limits set in the hospital discharge note.

The 1st order concept "GPs cooperate better when they have a professional relationship with home care nurses" shows that closer relationships and a better understanding develops between GPs and the patient's network of nurses, where they hold meetings or correspond frequently. GPs experience that digital cooperation can improve after physical meetings.

The 2nd order theme of "GPs work for holistic focus" and an understanding of the patient's situation, shows that GPs sometimes miss information in complex cases, and are sometimes biased towards the medical aspects in patient care (Fig. 1). Some GPs worry that all the needs of patients cannot be uncovered during practice visits, and that they can only be uncovered in the environment in which the patient lives and experiences their life. A limited number of GPs were concerned that structured digital text-correspondence offers fewer opportunities for "talk" that can uncover tacit problems.

Yes. I think we had more meetings before, if someone were troubled, to try and set a direction for treatment and follow-up.

Though GPs have a pragmatic approach and sometimes reverse decisions made in specialist health care, the 2nd order theme "GPs cooperate with hospitals" represents the consistent finding that the opinions and directions of specialist care providers are a central element in the GPs understanding of the patient's situation and future pathway. The first order concept "GPs interpret situation based on discharge notes" shows that GPs hold strong opinions on the quality of discharge notes, missing discharge notes also commonly resulting in reactive behaviors such as calling hospitals or other actors in the health care system.

GPs conversely, however, play a less central role in the hospital treatment of a patient than the hospital plays in GP treatment. We observe that GPs only occasionally set the direction when patients are hospitalized, and that this is often when the patient case is complex or where the patient has been frequently hospitalized in the recent past.

B: process of workflow - contributing to internal coherence of services and working in a stepwise manner

Interviews identified the securing of internal coherence in health care service provision to be a central element of a GP's job. The interviews also identified that most GPs use a reactive and stepwise approach to solving ongoing and emerging problems. These two 2nd order themes together make up the second order aggregate dimension "Process of workflow".

GPs express trust in other health care professions, but want to monitor and be informed about ongoing situations and work processes, to make sure they are implemented and to follow up quality. GPs rely on digital tools in this, unless the complexity of the situation requires telephone calls or physical meetings. Increased trust in and task sharing (patient follow-up, drug tapering) with the home care nurse were occasionally observed. This was, however, limited to situations in which the GPs had in-depth knowledge, and where the nurse had a thorough knowledge of the patient's life and situation. Some GPs had limited trust in the digital system and created control mechanisms to ensure that important tasks had been executed by home care nurses.

In a way I feel I get more control, but at the same time you cannot always trust that what you write down will be done.

The 2nd order theme "reactive and uniform ways of work" streamlines workflows and ensures that the work is carried out efficiently. The 1st order concept "GP works in stepwise manner" captures that day-to-day work cooperation and correspondence primarily consist of digital text messages between GPs and home care nurses. The next steps that are to be taken by the message sender or recipient are communicated and discussed in these messages. Higher levels of communication are, however, required when things become more complicated. Digital correspondence is commonly limited to changes in drug treatment or more elementary clinical measures. GPs

say that they use the telephone and initiate meetings in more complex cases. Home visits are only carried out occasionally in response to semi-acute problems. GP participation in proactive activities or planning commonly occurs in an "proactive on reactive" pattern. An event triggers a system action, after repeated visits to hospital or the local emergency care room.

GPs consider the digital system to be a flexible way of updating colleagues, of discussing and managing drug lists, of "staying in the loop" and monitoring the patient's situation. This is covered by the 1st order concept "GPs pleased with ways of working".

As GP answers digital requests in batches, digital communication is not in real-time. This results in a potentially high number of short and fluid partnerships between a GP and different home care nurses. This requires communication to be rigid and structured, so that everyone can understand it. Digital communication is primarily text based. The lack of flexibility of this communication form may therefore lead to a monotonous communication.

A central finding of the second identified aggregate dimension "Process of workflow", is that most GPs ultimately use the digital communication system in a similar rigid and monotonous way, the way that they work being characterized by a "step-wise" and "proactive on reactive" approach.

C: process of maneuvering organizational structures and medical culture - positioning the GP role in relation to patients and the health care system

Much of the hardship experienced by GPs when trying to set direction outside and beyond their own organization, is captured by the aggregate dimension that describes GPs maneuvering organizational structures and medical culture. GPs are efficient when setting the direction of medical aspects across organizations. Examples include changes in medication and clinical measurements. GPs are, however, not as efficient in less medical issues such as initiating physiotherapy at home, short term stays in nursing homes or other tasks that are less strongly linked to the GP role. One GP said that it was easier when hospitals administered the admission of patients to nursing homes on discharge from hospital. This implies that hospitals have greater access to nursing homes than GPs. GPs sometimes, furthermore, use their medical authority to hospitalize patients, to help overcome organizational hindrances so that patients receive health care services from the municipality after hospital discharge.

The GP can, in other situations, be positioned at the opposite side of the spectrum of power. One GP had experienced home care nurses withdrawing from digital cooperation when the GP intervened actively, exercised too much leadership or was too controlling. We therefore conclude from the 1st order concept "GP causes home care nurses to withdraw from cooperation when proactive or controlling", that GPs must be careful and follow established rules of cooperation to avoid other stakeholders withdrawing from task implementation.

Finally, findings revealed that medical culture affects GPs' perspective on IC. The GPs interviewed frequently raised the importance of patient autonomy, and expressed their support for patient self-management. We frequently observed GPs seeing themselves as the main point of contact, the "first responder" and the coordinator of the overall medical services received by a patient. This, taken with GPs commonly expressed aim that patients are handled "in the municipality", leads us to conclude that GPs in this cohort see themselves as gatekeepers to the wider health care system. This is captured in the 1st order concept "GPs see themselves as main point of contact and responsibility".

> *I think it is nice that everything is in one place and that responsibility is held by as few as possible.*

To summarize, results from interviews show that GPs play a central role in a patient's health care team and that GPs, through primarily focusing on the patient and the micro-context, consider that IC is provided when patients experience cooperation, holism and continuity in service provision (Fig. 2a). The 2nd order aggregate dimensions identified by our analysis, demonstrate the challenges that confront GPs who aim to exercise leadership across organizations (Fig. 2). These challenges arise from the creation of an integrated patient experience in cooperation with different health care professionals (Fig. 2a), from constraints resulting from the step-wise uniform way of working (Fig. 2b) and the requirement that the GP acts in accordance with the macro-context, which consists of organizational structures and the prevailing medical culture (Fig. 2c).

Discussion

By exploring what type of leadership actions GPs adopt in collaboration with patients and other health care professionals to provide IC, we identify that the collaboration between GPs, patients and other health care professionals in this municipality can be characterized as DL.

Digitally facilitated correspondence between health care professionals in this municipality frequently bears similarities with the configuration of "institutionalized leadership practice" observed in DL [17]. Structured and formalized tasks and functions have, in this, resulted by design [17] or from "planful alignment" [34]. Our findings show that in this configuration, collective leadership

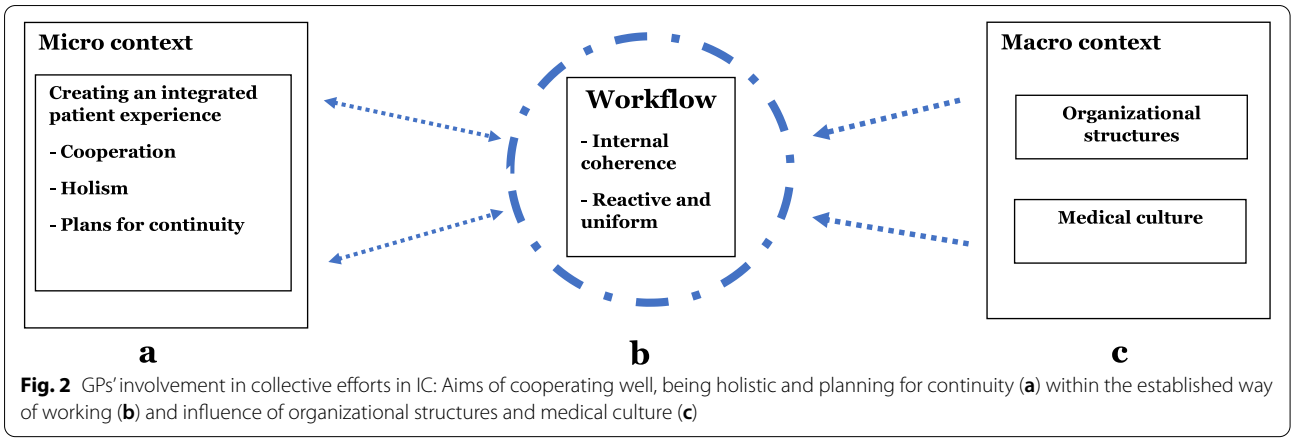

Fig. 2 GPs' involvement in collective efforts in IC: Aims of cooperating well, being holistic and planning for continuity (**a**) within the established way of working (**b**) and influence of organizational structures and medical culture (**c**)

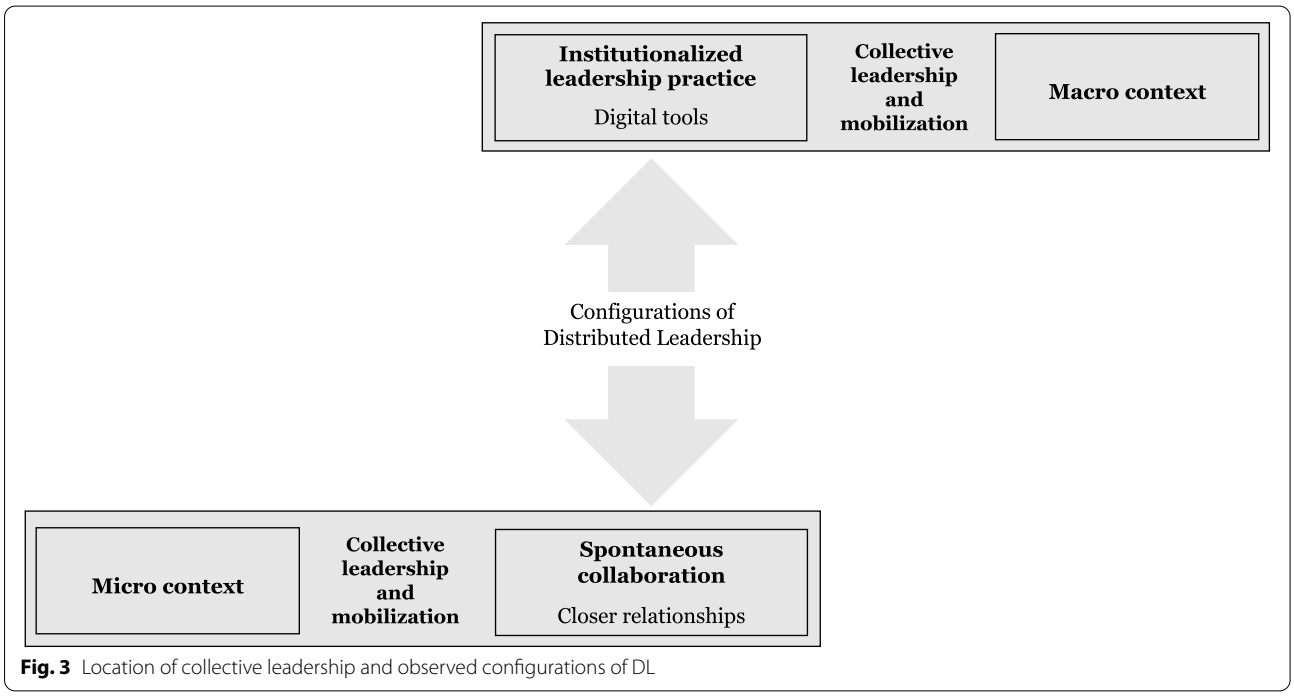

Fig. 3 Location of collective leadership and observed configurations of DL

commonly resides in collective initiatives and efforts mobilized from the digital solutions in use and the macro-contextual environment of organizational structures and medical culture (Fig. 3). GPs primarily accommodate and observe "the whole" from the digital space, balancing their roles as both leaders and followers. Leadership is, however, not easily observed, as many of the collective tasks in this configuration are of a managerial nature.

Literature on how DL is implemented or operates in health care is scarce [35] and only a few studies have explored DL in the primary care or municipality setting [36]. In accordance with the general literature on IC, the process of care integration in this municipality relies on effective digital tools for information sharing [37, 38]. However, findings from this study suggests that digital tools are not fully utilized but adapted to suit the established workflow and context (Fig. 2), facilitating GP participation in multiple parallel work groups which is essential in DL. Furthermore, findings indicate that rigid and structured digital communication minimize challenges related to role overlap and role ambiguity identified in a previous study on DL in a community mental health context in Canada [39].

Taken as a whole, findings from this study show that the leadership actions GPs adopt to collaborate with other

health care professionals in this municipality can be characterized as DL and contribute to IC. However, the digitally facilitated and institutionalized configuration of DL frequently identified in this municipality primarily contribute to service integration at the organizational level. It is worth noting that this finding is in line with findings from a recent study by Salmon et al. [40]. In this study DL was found to promote streamlined service provision and to facilitate service and system-level integration in an emerging network of integrated youth health care centers in a municipality setting in Canada [40].

GPs, when they occasionally take more action to affect the direction of collective efforts in the provision of IC, commit to closer relationships with other health care professionals, act out more interpersonal roles as figureheads in the solving of complex problems, and become enabled to both monitor and disseminate "the complete picture" of information in interaction with other health care professionals. Such situations can be equated to configurations of "spontaneous collaboration" in DL, groupings of individuals from different organizational levels pooling their expertise for the duration of the task and then disbanding [17]. Collective leadership resides, in this configuration, in the micro-contextual environment of the patient, collective efforts being mobilized to bring about home visits or in-office meetings, which are initiated by GPs, peers, or other health care professionals (Fig. 3). This configuration is, however, only observed occasionally, exists only within smaller work groups disconnected from the wider organizational context, move spontaneously only after being collectively initiated in a "proactive on reactive" way in response to a "crisis", and commonly apply only to a limited domain related to the problem which caused the call for collective efforts.

Findings complement previous studies on DL, showing that roles and responsibilities are fluid, temporary and influenced by the wider organizational context [41, 42], and that strong interpersonal relationships is a contextual factor that promotes DL [42]. Consistent with discussions on the macro-context in this study (Fig. 2c), previous studies have established that organizational factors, professional roles, and values influence the distribution of leadership in health care [15, 42–44].

Of the two identified configurations of DL, "spontaneous collaboration" intuitively seems to be better suited to the achievement of individual and complex IC goals. Our findings show, however, that there are many factors within the micro and macro-context that affects the form of collective leadership observed (Fig. 2). Applying efficient institutionalized ways of "planful alignment" one or more times before moving on to more effective but resource and human capital-intensive methods of "spontaneous collaboration", may serve to achieve quality goals and the limiting of the resources used in this health care system context where personnel scarcity is described as being the limiting factor [22]. However, DL as social process and construct depends on continuity and disappears if there is lack of follow-up, meeting points or information sharing between people (Fig. 2b). Findings from this study restates the importance of relationship building and context in DL [45].

If the aim of establishing DL is to improve patients experience of IC, GPs' and other health care professionals' understanding of what IC is must be uncovered as a strong GP focus on continuity and cooperation may primarily serve IC as a "top-down process" at organizational levels [46]. The macro-context may furthermore benefit organizational goals, but at the cost of multimorbid patients' needs for swift and individualized measures [5, 47].

Our findings suggest that when the capacity of digital tools is limited or there is rationing of health care personnel, then collective leadership actions fall into "institutionalized" and "preplanned" ways of working, constrained by the shared agency of the macro-context. It is expected, in the theoretical conceptualization of DL in health and social care, that synergies from DL arise when concertive actions and conjoint agency interact [15]. Theorizing opens for discussions on whether a strongly held "conjoint agency", larger groups or groups with limited resources are predisposed to establishing institutionalized and "preplanned" ways of working (Fig. 3). It also opens for a discussion of whether interactions between "concertive actions" and "conjoint agency" can have negative synergies that make DL rigid and inflexible. We are not aware of researchers discussing negative synergies in DL. We are also unaware of discussions of the need for health care professionals or patients to agree on a more contextualized "conjoint agency" disconnected from the wider mission or purpose of the health care organization in DL.

This study has some limitations. Seeing leadership as a social construct that emerges within groups, may limit the ability of the study to uncover what health care professionals do not do. This may also limit the examination of the role of individual characteristics, such as the professional power and personal interests of GPs. Recruited patients may have been those at "the top of the mind" of the GP or their secretary, those who are easy to approach due to upcoming scheduled appointments, those expected to participate constructively or very complex cases from the perspective of IC. Recruitment was limited to one patient per GP to reduce this bias. As the first author (HB) has experience from work as a GP in the municipality where the research project was carried out, there is a possibility of social desirability bias in GP interviews. Consulting the multidisciplinary research team during analysis is expected to have minimized this bias.

Conclusion

The results of this study shows that health care professionals who aim to facilitate DL in IC should focus on recognizing and unifying the multiple and shifting contexts experienced by patients, be relational with other health care professionals and master several ways of cooperating across organizational borders. In this municipality DL was predominantly observed as institutionalized practice and "planful alignment" contributing to organizational integration and coordination. Achieving "higher forms" of DL, in which collective leadership and efforts emerge as social processes and parts of living systems connected to a patient context, challenges current ways of working, and the application of digital tools, use of health care personnel and resource use.

Abbreviations

DL: Distributed leadership; IC: Integrated care; GPs: General practitioners.

Supplementary Information

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Additional file 1.

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Authors' contributions

HB contributed to the research project by developing the semi-structured interview guide, recruiting participants, collecting, and analysing data and writing the first draft of the manuscript. AM supervised the design of the research project and together with OØ and MS contributed to the development of the interview guide, interpretating the collected data and critically revising the manuscript. All authors read and approved the final manuscript.

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Availability of data and materials

The datasets generated from the current study are not publicly available due to reasons of confidentiality. Additional knowledge of the de-identified data is available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

The research project was conducted in accordance with the Helsinki Declaration and approved by the Norwegian Centre for Research Data (ref. no. 228630). The research project was exempt from formal review by the Regional Committee for Medical and Health Research Ethics in Norway (REK) as the research project was considered health service research that did not intend to generate new knowledge about health and disease (ref. no. 2019/1138). All research methods were performed in accordance with ethical guidelines and regulations. Permission to conduct the study was obtained from the Divisions of health and social care services in the municipality. All participants signed written informed consent and were informed that they at any point were free to redraw their participation. Disclosures of confidentiality was obtained from patients.

Consent for publication

Not applicable.

Competing interests

Not applicable.

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ORIGINAL RESEARCH

A Qualitative Study on Distributed Leadership in Integrated Care: Exploring the Experiences of Elderly Multimorbid Patients with GP Collaboration

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Objective: This study explores how the collaboration between elderly multimorbid patients and general practitioners contributes to the patient's experience of integrated care in the municipality. The research also investigates whether the municipality's integrative mechanisms creating integrated care can be understood as distributed leadership.

Method: In this qualitative study, we conducted a thematic analysis of semi-structured interviews with twenty elderly multimorbid patients living at home and their general practitioners.

Results: Analysis of patients' and general practitioners' experience of healthcare service characterized by collective efforts identified four themes: 1) an impression of collective processes as difficult for patients to access and influence; 2) that the fluidity and location of leadership is dependent on the individual patient and his or her health condition; 3) that collective implementation of healthcare services is separated in time, geography and between organizations; and 4) that patients experience individual healthcare workers as specialized and unable to support the medical and holistic goals of the collective. The Direction, Alignment, and Commitment or DAC framework, is used to investigate the capabilities of the collective.

Conclusion: To promote distributed leadership and create a patient experience of integrated care in the municipality, healthcare organizations must develop collective processes that enhance patient participation to a greater extent. General practitioners and other healthcare personnel should be encouraged to play a more central role in solving elderly multimorbid patients' healthcare needs in the municipality.

Keywords: distributed leadership, integrated care, multimorbidity, multidisciplinary healthcare, family practice, qualitative research

Introduction

The proportion of elderly patients living at home with chronic illnesses is increasing, and management of chronic health conditions is now a major focus in healthcare.[1] In Norway, as elsewhere in Europe, the healthcare government aspires to have these patients remain independent and live at home with the best possible quality of life. To achieve this, patients with chronic health conditions depend on a range of services from numerous primary and specialist healthcare professionals.[2]

We take a patient-centered perspective and define integrated care as a situation where

> I can plan my care with people who work together to understand me and my carer(s), allow me control, and bring together services to achieve the outcomes important to me.[3]

A patient-centered approach to integrated care in primary care requires that general practitioners (GPs) uncover individual patient needs so that a comprehensive set of healthcare services can be supplied in a coordinated and continuous way by healthcare providers who can monitor the patient's health status, respond to its deterioration, and support and empower the patient and his or her relatives.[4,5]

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According to the literature, demographic changes, longevity, and complexity create leadership challenges in service provision at different levels of healthcare.[6] At lower organizational levels and closer to the patient, distributed leadership has been suggested as one way of gathering "the collective around the table", so that individual patients can benefit the most from the available resources and expertise of the collective.[7]

There is no clear definition of distributed leadership.[8,9] However, most theories describe influence and responsibility as fluid among people who do not necessarily hold traditional leadership positions, focusing on the situation and collective practice, blurring leadership and managerial activities. Consequently, distributed leadership is more concerned with relationships, connectedness, and leadership practices than are traditional leadership theories[10,11] which tend to define leadership strictly as an interindividual process of influence between positional leaders and followers.[12] The idea of distributed leadership in integrated care fits well with recent healthcare reforms focusing on patient participation.[13,14]

It is essential to note that distributed leadership is not a physical entity, but an abstract concept and social phenomenon used to conceptualize leadership as a social process. As a social phenomenon, distributed leadership is hard to observe or measure objectively. However, as researchers, we can infer the existence of distributed leadership by exploring patterns of collaboration and the experience of research participants. The literature suggests that distributed leadership is a relevant concept in health and social care settings where multiple professionals with diverse expertise need to collaborate in service provision.[8,15] This article explores patients' experience of GP collaboration in the municipality to improve our understanding of distributed leadership in integrated care.

We consider distributed leadership a collective process among patients and general practitioners (GPs) that enables individuals to work together as a single unit and produce the results the collective of healthcare providers and patients want. We use the DAC framework to study distributed leadership as a social process and as the result that emerges due to the collective's direction, alignment, and commitment.[16] Here, direction refers to the widespread agreement in a collective on overarching goals, purpose, and mission; alignment to the organization and coordination of knowledge in a collective, and commitment to the willingness of members of a collective to subsume their interest and benefit within the collective interest and benefit.[16] Thus, successful DAC outcomes imply agreement on what the collective aims to achieve, that work is coordinated and integrated, and that members make the success of the collective a personal priority. If leadership can arise from anywhere in the organization, this ontological approach allows the researcher to focus on DAC practices, understood as "what has been done" by the collective, and to study DAC outcomes resulting from group leadership practices across "levels of analysis" and independently of whether DAC is created by individuals, a team, or an organization.[16]

We ask the following research questions: How is the collaboration between patients and GPs experienced by patients? And Does the collaboration between patients and GPs contribute to distributed leadership and enhance the patients' experience of integrated care?

Materials and Methods

Study Design

This qualitative study uses semi-structured interviews with elderly multimorbid patients and their GPs to explore patients' experience from collaborating with GPs providing integrated care in a primary care setting in Norway. A qualitative approach was chosen since the study was conducted to gain a deeper understanding of interaction and communication between patients and healthcare providers in complex social situations.

Study Setting and Participants

This study was undertaken in a semi-urban municipality in Norway where the majority of the population is enlisted with a regular GP who provides healthcare services during office hours (about 0800–1500) Monday through Friday. Patients who depend on home care nursing receive these services after application, and after the patient's needs have been reviewed by the municipality in which the patient lives. In this municipality, different healthcare providers digitally communicate their activities and concerns to each other. Patients receive treatment and medical procedures in different locations and only occasionally meet with more than one healthcare provider at a time. The local emergency room is

available 24 hours a day, seven days a week for emergency and semi-acute medical problems outside of GPs' business hours. When more advanced care and medical intervention are needed, patients can be referred to the local municipality acute ward or admitted to the nearby regional university hospital. The Norwegian healthcare system is semi-decentralized, and although the national government is responsible for hospitals and specialist out-patient care operated via regional health enterprises and local hospital trusts, the municipalities are responsible for providing primary healthcare, home care nursing services and preventive care.[17]

Our study was conducted after we contacted the district medical officer and the leader of the municipality's health and social care division. We informed GPs about the project directly through office visits, telephone, and at a meeting between GPs and municipal health authorities to recruit patients. In addition, we approached the director of the municipality acute ward, where two nurses identified patients for inclusion. Potential interview participants received oral and written information on the research project through contacts with their GPs or nurses during stays in the municipality acute ward. We recruited patients from the GPs offices or the municipality acute ward. Once we had recruited a patient, we recruited the patient's GP. This resulted in twenty dyads, or pairs of patients and GPs, who contributed to the study.

Patients were purposely sampled to ensure that all research participants had experienced provision of integrated care. To be eligible for the study, a patient had to have been hospitalized or referred to the local municipality acute ward within the last 12 months, granted home care nursing services from the local municipality and diagnosed with two or more diseases to fulfill the WHO criteria of multimorbidity,[18] treated with four or more medicines and above 65 years of age. Patients with healthcare conditions that impeded their participation (eg, severe hearing loss or moderate to severe dementia) were excluded from the study.

Data Collection

We recruited 20 patients and their GPs for individual interviews between October 2019 and January 2020. Two researchers who had worked as a GP and a nurse conducted interviews lasting 27–65 minutes. Interviewers and interviewees were not matched by their roles. All interviewers were audio-recorded and conducted with patients and GPs separately. Patient interviews were held in the patient's home or during stays in nursing homes and the local municipality acute ward. GPs were interviewed in their offices. The total dataset consisted of 40 interviews. The average age of patients was 82.5 years, and the majority were female (13). Ten participants were living alone. The average age of GPs was 45.1 years.

Patients' recollections and experiences of collaborating with their GP and home care nurses in day-to-day practice and during health deterioration were key themes of interviews.[19] Additionally, interviews focused on the patient's efforts, actions, and thoughts on how to regain health and live as well as possible. Similarly, GP interviews focused on GPs' experience from collaborating with other healthcare providers and the GPs' recollections of the patient's most recent hospitalization.

Data Analysis

All interviews were anonymized. All contextual identifiers, such as names of patients and healthcare institutions, were removed during transcription. After transcribing, the analysis consisted of open coding and thematic analysis.[20] Codes were identified based on units of analysis, consisting of sentences describing and illustrating the patient's experiences from his or her routine interactions with healthcare providers during critical events like hospitalizations and referrals to the municipality acute ward. After patient data were analyzed, GP interviews were analyzed to identify GPs' experiences or critical events identified in patient interviews. Interview findings and emerging themes were discussed in detail during meetings in the research group (HB, AM, MS).

Finally, an aggregate approach was taken to explore the relationship between themes and to identify patterns of DAC practices at the group level. This synthesis of themes allowed for exploration of the collective process involved in the provision of integrated care from the perspective of patients, however, with sensitivity to the wider collective represented by the experiences and voices of GPs with whom the patients were enrolled.[20]

Ethical Considerations

The study is part of a research project, "Leadership and Technology for Integrated Health Care Services", which was conducted following the Helsinki Declaration and discussed with the Norwegian Centre for Research Data (Project No. 228630). The research project was considered health service research without the intent of generating new knowledge of health and disease and exempted from formal review by the Regional Committee for Medical and Health Research Ethics (ref. no. 2019/1138). All participants provided written informed consent before participation in interviews. Participants informed consent included statements that their anonymized responses could be published. In addition, written patient consent for disclosure of the GP's confidentiality was obtained before GPs provided informed consent and participated in interviews.

Results

This study's results describe the experience of patients participating in collective processes with GPs. Four themes emerged from the interviews with patients: (i) the collective process is difficult to access and influence; (ii) the fluidity and location of leadership is dependent on the individual patient and his or her health condition; (iii) the collective implementation of healthcare services is commonly separated in time, geography and among organizations; and (iv) individual healthcare workers are specialized and unable to support all of the collective's medical and holistic goals.

Patients Experience the Collective Process as Difficult to Access and Influence

Healthcare personnel play a central role in elderly multimorbid patients' life, and the collective is bound by patient follow-up in GPs' offices, the interaction between patients and home care nurses in patients' homes and the digital correspondence between home care nurses and the GPs. GPs' and nurses' access to digital communication makes implementation and changes in medical treatment more efficient. However, interviews show that patients and GPs rarely participate together in collaborative meetings with other healthcare professionals. GP interviews also reveal that healthcare professionals typically share information or discuss concerns regarding a patient's situation in a professional language and style. Patients are often excluded from these communications.

> **P6**: I think digital solutions are good. At least when it comes to communicating with me. I can also write messages digitally (to them), but I have never done that.

> **GP of P6**: The majority of digital communication with home care nurses is good, I was about to say that it is "to the point". Depending on personnel, communication may be a bit loosely or too much. In such cases a meeting may be more appropriate.

The barriers to multidirectional influence that patients experience can result from the communication tools that they use, personnel changes when services are available around the clock, opening hours and schedules when personnel is regular and organizational fragmentation when the collective group expands. Due to their busy schedules, GPs explain that they are not usually involved in managing acutely sick patients. These patients are frequently managed by the acute care chain or hospitalized when their GP's office is closed.

> **P4**: That's the way it has been happening recently. I have been pressing the alarm button so that home care nurses come here and contact the ambulance services for me. That's the way it goes (…) No, they don't answer the phone in that office. I get help from my daughter to use the mobile and send SMS because they don't answer regular fixed phone calls down there.

> **GP of P4**: It happens that I hospitalize patients. However, quite a few times, they are hospitalized by the emergency care services. Sometimes the ambulance services come here to transport patients or bring patients when it is not that urgent.

Patients are frustrated when healthcare personnel are not regular. While some patients included in this study had established long-lasting relationships with their GP, some had difficulties achieving this with temporary GPs, as well as other healthcare personnel in hospitals and home care nursing services. Lacking relationships makes it hard to achieve continuity and to accommodate healthcare services to individual needs.

GPs prefer digital communication, even though they are aware that most elderly patients do not use them. Patients report that communication is commonly experienced as one way: from the GP to the patient. It is not always easy for

patients to contact their GPs. While GPs say that patients need to contact them for acute care, patients often lack the digital skills, or have functional impairments that make this difficult. They must also contend with designated times for phone calls and having to wait for care.

Patients who take action across organizational borders sometimes enlist their home care nurses to initiate contact with GPs or to refer them to the local emergency room. When the collective includes an increasing number of healthcare specialists, organizational fragmentation and borders make it difficult for patients to influence in multiple directions across the system. Both GPs and patients see GPs as the coordinator of larger collectives. However, some patients suggested the introduction of coordinators to remedy the exclusion of patients from professional discussions.

The Fluidity and Location of Leadership is Dependent on the Individual Patient and His or Her Health Condition

GPs and patients involve in routine tasks during stable health but set up more advanced adaptive functions when needed. The roles of individuals within the collective are not always fixed, however, patients hold opinions concerning who is to take leadership, where, and when. The patients frequently associate leadership with responsibility and physical meetings and delegate leadership responsibility to the individual healthcare provider they interact with when it happens.

> **P12**: No, I don't have any knowledge concerning what is best for me. It is the GP who suggests this or that solution, and I follow the advice and do not think more about it. I trust in their assessment.

Leadership is not easily transferred or decentralized; treatment and task ownership have become associated with one or more healthcare providers. This is most easily observed when new medical treatments are initiated, invasive procedures are performed, or the patient's medical history is complex. In complex patient cases, leadership can become tied to individual GPs, thereby hindering fluidity.

> **P5**: My GP is in the office only some days of the week. The other GPs in the office say it's too special and that they do not want to involve in my GP's plan. I'm not sure, but it's OK for me.

> **GP of P5**: I spend most of the time in my office, and he visits me about once a month. We spend about 20–25 minutes on conversations, perhaps investigations.

Furthermore, interviews show that patients can be too incapacitated to participate in the collective process when sick or hospitalized. Patients do not usually remember the details of their hospital stays and prefer followership in acute disease and sometimes also during stable health conditions when they lack the knowledge or energy to assert their agency in the collective process. After hospital discharge, some patients experience illness, fatigue and hardship initiating follow-up with GPs or other healthcare providers.

> **P7**: No, that's the problem. You can't do anything yourself. Need help for everything, just moving from one chair to another.

At other times, patients find it hard to "let go" and relinquish control to their healthcare providers. Several patients struggle to balance their own needs for control and trusting the system because they have experienced medical mistakes, some irreversible. Thus, patients express that they are obliged to pay attention and insist that they are the final authority on their health as long as they are "up and running". Patients say they avoid visiting GPs when healthy, and GPs state that patients should take care of their health and treatment as much as possible.

> **P19**: I just need to do as they say and trust them. I cannot be in complete control and keep fussing back and forth. I'm sure it's going to be OK.

The Collective Implementation of Healthcare Services is Commonly Separated in Time, Geography, and Among Healthcare Organizations

Individual patient leadership and collective actions are local and primarily played out at home, where patients take measures to solve their medical and non-medical problems. However, such measures are highly individualized and initiated only after discussion with or input from family or peers.

> **P4**: I was better after I arrived back home. Because after quitting medicines, appetite improved, and food stopped coming back up again.

According to the patients and GPs, home care nurses are responsible for collective continuity as they frequently meet and monitor patients, are available around the clock, and are better connected to GPs. Patients complain that asking for extra home care services is pointless as services are limited, needs-based and governed by organizational rules. Similarly, patients experience hospital stays as burdensome due to high efficiency and a lack of regular healthcare personnel. However, patients support the way of organizing hospitals and admit that home care nurses are fast responders and "great at medical matters". We interpret that the system conformity among patients relates to patient compliance and acknowledgment of some greater good resulting from this way of care provision.

Where hospitals are associated with acute and severe disease, GPs are associated with milder illnesses and debility. In stable health, home care nurses play a central role in patients' everyday lives, while GPs are the primary point of contact for patients in the healthcare system. Patients describe the services offered by GPs as less regulated and more flexible compared to other healthcare services, appreciates the GPs' ability to provide continuity and individual modification of medical measures, and prefer physical meetings with their GPs. Patients can be frustrated by short appointments and hard-to-reach GPs, who can become bottlenecks in this organizational system where patients depend on GPs both before and after specialist healthcare visits. Healthcare services that are continuous from the GPs point of view can be experienced as non-continues from a patient perspective.

> **P3**: I think that when I arrived back home that the GP could have … The office is just in my neighborhood. The GP could have come for a visit or telephoned me. The GP's office is on the corner over there. It's just 50 meters.

> **GP of P3**: S/he was in the hospital from (date) to (date), then in a rehabilitation stay in (name of town) before s/he came back home on the (date). Interviewer: Was there any contact with you for the period s/he stayed in the hospital or the nursing home? GP: No, I received a discharge report from the nursing home explaining what had been done, what had been discussed with the hospital, and what was considered the correct way forward.

Findings show that GPs cannot address or solve all health issues patients present with and that complex health problems frequently necessitate specialist referral or hospitalization. GP interviews confirm that the patient group is complex and that specialist healthcare providers often initiate more advanced treatment. GPs solve many of the patient's minor medical problems and assist home care nurses but are only occasionally involved in more advanced medical treatment of patients in the municipality. While management of common diseases traditionally is considered the responsibility of GPs, multimorbidity may require the involvement of multiple professions to ensure correct disease treatment, prevent side effects, and guarantee safe administration of the treatment.

> **P3**: This was addressed properly first when I was in the hospital because of (disease 1). It was at that time that they suggested the treatment for (disease 2), something they hadn't mentioned before.

> **GP of P3**: Now, s/he has been to the hospital and had (treatment of disease 2) in connection with the hospital admission for (disease 1) where (disease 2) was addressed. S/he went to a follow-up in the hospital in (month).

Patients Experience Individual Healthcare Workers as Specialized and Unable to Support the Medical and Holistic Goals Residing in the Collective

Findings show that the elderly, multimorbid patients participating in this study seem focused on accepting and managing their chronic health conditions as best as possible. Patients occasionally act more proactively, wanting more medical examinations to clarify the cause of long-standing symptoms or to rule out that nothing more can be done to improve their situation. In several interviews, patients say that they avoid hospitals and prefer to stay home and live the best life they can. However, interviews have revealed that the collectives of patients, GPs and other healthcare personnel are not equipped to achieve their aim of optimal functioning in everyday life. The quality of life, according to almost all patients participating in this study, depended on having family members to make things run smoothly. Patients depend on family members to assist with running the household, doing the shopping, and offering companionship.

P3: I have family who lives close by. In addition, I have relatives who work in healthcare. So, I have many helpers.

"Leadership of the Collective" – Identified DAC Practices

By applying an aggregate approach to the results of the thematic analysis of study findings, this study identifies three collective processes that create functional DAC outcomes in this municipality. First, in everyday life, the collective of patients and GPs focuses on everyday tasks. Here, a strong focus on medical treatment and assistance of the home care nursing services ensure quality in implementing healthcare services in the patient home. However, the holistic and non-medical aspect of healthcare services required to create a patient experience of integrated care needs to be improved. Concerning the more complex activities of daily living, patients depend on next-of-kin activities that are better aligned with and more sensitive to their needs.

Second, in the case of minor medical problems, the direction of the collective is instructed by GPs, who can be either controlling or open to influence from patients and other healthcare personnel. In such cases, where medical problems can be solved in the municipality, GPs rarely involve or commit strongly and depend on home care nurses to show commitment and do nursing tasks that GPs rarely do. Furthermore, patients, their next of kin, GPs and home care nurses may all contribute to aligning the collective in the case of minor medical problems in the municipality. Lastly, patients contribute less to direction and alignment in more severe and complex medical problems as the process involves advanced medical assessments and investigations in specialist healthcare. GPs in such situations play a role in alignment, primarily as medical and holistic "knowledge brokers". However, GPs lack the necessary tools or competence and depend on the expertise and advanced procedures of healthcare specialists' services or home care nurses to ensure organizational alignment and commitment to implementation when such collective processes span organizations.

Discussion

This study shows that when patients in this municipality view their healthcare services as coherent and connected, this is due to the efforts of healthcare professionals and help from the immediate family of patients. In general, patients express that they are satisfied with their service offerings. However, results from the study identified room for improvement in the collaboration between patients and GPs which is central in the provision of integrated care in this municipality.

First, the study shows that if patients' access to and influence over the collective is limited, the contribution from the collective process in achieving a patient experience of integrated care will also be limited. Findings from interviews show that patients are sometimes unaware of collaborations between GPs and other healthcare personnel and that patients generally struggle with accessing GPs offices and influencing the primarily digital collective processes. More often, patients are frustrated over weak relationships with healthcare professionals, specifically GPs, who are hard to reach when needed most and a lack of regular relationships with other healthcare personnel. Consequently, the collective direction-setting and subsequent DAC outcomes are not optimized as patients and healthcare professionals find themselves at odds when it comes to an individual patient's goals, aims, and possibilities. Additionally, study findings show that delivering more holistic healthcare services will require digital correspondence that does not narrow the focus to the selected topics healthcare professionals consider relevant to each other.[19] In reference to the literature on

distributed leadership, this finding is consistent with research suggesting that pluralized leadership has both collective and individual elements, and that collective leadership may need the support of both infrastructure and individual agency.[21–23]

In addition, the study shows that if GPs limit their efforts to direction setting or only function as coordinators or implementors of medical tasks and interventions in isolation from the rest of the collective, this will limit the contribution the collective process has in creating a patient experience of integrated care. In this study, where GPs focus on implementation and follow-up of medical investigations and treatments, and frequently depend on assessment by other specialist physicians and implementation by home care nurses, the result is a hybrid leadership practice that is more coordinated and aggregated than collaborative and holistic.[24] From the theoretical perspective of DAC outcomes, characterized by healthcare providers who are more dependent and independent than interdependent.[25] A stronger commitment to collaboration and implementation in hands-on work and a broader set of service offerings is required from GPs if patients in this municipality are to experience collective efforts that contribute to a patient-centered experience of integrated care. Findings correspond to previous research showing that the practice of distributed leadership depends on the competence and skills residing in and transferring within the collective;[26–28] that unleashing the full potential of distributed leadership may require organizational intervention in the form of both resources and support from senior leaders in organizations.[15,29]

Finally, this study identifies that organizational structures and service offerings affect the way in which patients experience and envision collective processes contributing to integrated care. As most identified collective practices run sequentially between healthcare providers in different organizations separated in time and geography, and other healthcare professionals are successively involved when tasks become too complex for the GPs as first-line responders, patients frequently experience healthcare services as units of services that are not interdependent.[25] Patients' experience of healthcare services is closely associated with the setting and their interaction with healthcare professionals.[30] If aiming for patients to experience organizational boundaries as floating and health workers as boundary spanners, this will require a more open and collective organizational system. From the perspective of patients, geographical distance[31] is the most readily apparent boundary to distributed leadership in this municipality. However, co-locating services would probably not remedy this, as moving to a less hierarchical, open, and collective system would require patients and peers to attend to new ways of working across professions. Previous research on distributed leadership suggests that such cultural changes will be hard to achieve in a healthcare organizational environment.[8,32] Considering these findings in the context of the study's ontological approach to distributed leadership, the DAC framework includes assumptions that DAC practices make up the leadership culture and that DAC practices are the result of underlying individually and collectively held beliefs about how to produce DAC.[16] In line with this, patients frequently state that they do not see themselves as part of a continuous process but distinguish stable health from illness, see the healthcare provider they meet as responsible for task implementation, and give away leadership when a lack of knowledge or health deterioration demands it. However, patients supervise and monitor healthcare providers' doings to their bodies if able. The list is not exhaustive but identifies underlying leadership beliefs that are suggested to affect the collective practices observed in this municipality.[16] Whether patients participate in distributed leadership or not, such underlying beliefs must be expected to affect the implementation of distributed leadership at clinical levels in integrated care.

Strengths and Limitations

A key strength of our study is the sample of participants, as interviews with both patients and GPs who have regular contact with each other provide a realistic understanding of patients' experience of integrated care. As some patients were relational and close to their GPs, sometimes entered the study through their GP's invitation, and were aware that GPs and other healthcare personnel participated in the larger research project that this study originates from, the risk of selection bias and response bias is emphasized. Using two interviewers and discussing study findings during meetings within the multidisciplinary research team helps to limit researcher and insider bias. As patients' experience of critical events was

chaotic, and patients and GPs only occasionally experienced critical events together in this municipality, we suggest observational case studies to investigate the subject of distributed leadership in integrated care from a patient perspective.

Conclusion and Implication

This study shows active collaboration among patients and GPs in this municipality that contributes to a patient experience of integrated care and that the collective processes identified can be understood as distributed leadership from the perspective of the DAC framework. To deliver healthcare services that are sensitive and responsive to the needs of individual patients, and that can support and empower patients, collective processes in this municipality need additional development to support patient involvement. When patients, for whatever reasons, cannot participate in digital communication, healthcare workers and organizations must commit to ways that enable patient participation in and influence over collective processes. The study clearly shows that GPs and other healthcare personnel should be stimulated and encouraged to play a more central role in solving patients' healthcare needs in the municipality. Together with the municipality and other healthcare personnel, GPs should aim to provide flexible healthcare services that are more holistic and better adjusted to the needs of the individual patient.

Abbreviation

GP, General practitioner.

Data Sharing Statement

Due to ethical and privacy restrictions, only limited extracts of the data can be provided upon reasonable request to the first author (HB).

Ethics Approval and Informed Consent

The study adhered to the principles outlined in the Helsinki Declaration and was discussed with the Norwegian Centre for Research Data (reference number 228630). As the study was classified as health service research and did not aim to produce new findings about health and disease, it was deemed exempt from formal review by the Regional Committee for Medical and Health Research Ethics in Norway (REK) (reference number 2019/1138). All research protocols were carried out in compliance with ethical guidelines and regulations. The study was authorized by the municipality's Health and Social Care Services Divisions, and all participants provided written informed consent. Participants were informed that they could withdraw from the study at any time. Disclosures of confidentiality were obtained from patients before data collection.

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

Dr Harald Braut has experience working as a GP. The authors report no other conflicts of interest in this work.

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Article III

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