Interpersonal Barriers to and Facilitators of Interprofessional Collaboration

Insights from Community Pharmacists' and General Practitioners' Positioning of Themselves and Each Other

Hilde Rakvaag

Thesis for the degree of Philosophiae Doctor (PhD)
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Scientific environment

This PhD was undertaken at the Research Group in Social Pharmacy, Department of Global Public Health and Primary Care, University of Bergen. While conducting this project, I was a member of the National PhD School of Pharmacy.

Main supervisor:
Associate Professor Reidun Lisbet Skeide Kjome, Research Group in Social Pharmacy, Department of Global Public Health and Primary Care, University of Bergen.

Co-supervisor:
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One day I received a message from my friend, Professor Elisabeth Flo-Groeneboom, encouraging me to apply for a position as a PhD candidate, with Associate Professor Reidun Lisbet Skeide Kjome as main supervisor. The theme of the PhD project would be collaboration between pharmacists and physicians. At the time, I was in my ninth year of working as a community pharmacist, had first-hand experience from communicating with physicians and could see the systemic challenges impeding good collaboration. This was a topic I wanted to explore, and since I knew Reidun from before, and that she was a lovely person, I decided to apply for the position. I have never regretted this decision, although there have been bumps along the way. I have had doubts about whether I would manage to complete this PhD, but I finally did so, and for this there are many people who must be thanked:

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try out interprofessional collaboration in practice, with great success. I am really grateful to have had you as my supervisor.

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Without all of you, I would have never made it.

Bergen, November 2023

Hilde Rakvaag

Abstract in English

Interprofessional collaboration between community pharmacists (CPs) and general practitioners (GPs) is shown to improve patient outcomes, and is important at a time when patients treated in primary care have increasingly complex medication lists. However, CP-GP collaboration is currently limited. Previous research has found that interpersonal aspects are particularly important for CP-GP collaboration. This thesis explores interpersonal barriers to and facilitators of CP-GP collaboration by identifying how CPs and GPs position themselves and each other.

The thesis builds on three studies with the following research aims: 1) to explore the interpersonal aspects of the collaboration between community pharmacists and general practitioners; 2) to identify how community pharmacists position themselves, and how they are positioned by general practitioners, and to assess how well these positions correspond, how the positions align with a proactive position for the pharmacists, and how the positions could impact collaboration; and 3) to identify how general practitioners position themselves, and how they are positioned by community pharmacists in relation to power dynamics, and to assess how the identified positions could impact collaboration.

Study I was a metasynthesis, in which we synthesised findings from 11 international qualitative studies about CP-GP collaboration. We applied the method of meta-ethnography, and the theoretical framework of positioning theory supported our analyses. We found that CPs and GPs who told stories about limited collaboration had differing storylines about the cooperation between them, whereas CPs and GPs who told stories about successful collaboration had more coinciding storylines. A proactive approach from the CPs towards the GPs, involving the delivery of concrete clinical advice for which the pharmacists acknowledge responsibility, was identified as a facilitator of collaboration.

Studies II and III were focus group studies, based on one empirical dataset. The data was drawn from six focus groups with ten Norwegian physicians and 12 Norwegian pharmacists. The data was analysed using the systematic text condensation (STC) method, and the analyses were supported by the theoretical framework of positioning theory. In study II, we found that the CPs positioned themselves as the "last line of defence", "bridge-builders", "outsiders – with responsibility, but with a lack of information and authority" and "practical problem solvers". The GPs positioned CPs as "a useful checkpoint", "non-clinicians" and "unknown". We identified both commonalities and differences in how the CPs positioned themselves, and how they were positioned by the GPs.

In study III, we found that the GPs assigned the following positions to themselves: "GPs are autonomous, responsible and in charge", "GPs are healthcare quality gatekeepers", "GPs are threatened", "GPs' time is precious" and "GPs are not infallible". The CPs assigned the following positions to the GPs: "GPs are skilled, but busy", "GPs are at the top of the hierarchy", "GPs are cooperative and open to input", "GPs are not very helpful or cooperative" and "GPs must be looked after and controlled". The presence of medical dominance was apparent.

Our findings suggest that the main interpersonal barriers towards CP-GP collaboration are GPs' lack of knowledge and awareness of CPs and their competences, responsibilities and potential contributions to a collaboration, as well as power differentials due to medical dominance. Further potential facilitators of CP-GP collaboration are a proactive approach by the CPs towards the GPs, and the CPs' acknowledgment of responsibility for their clinical advice. In studies II and III, we identified a coinciding storyline of interdependency between CPs and GPs, which represents a "window of opportunity" for CP-GP collaboration in the Norwegian context. This thesis suggests that creating opportunities for the two professions to build shared storylines is important to facilitate collaboration.

Abstract in Norwegian

Tverrprofesjonelt samarbeid mellom apotekfarmasøyter og allmennleger er vist å ha en positiv effekt på pasienters helse, og blir stadig viktigere i en tid hvor pasienter i primærhelsetjenesten blir behandlet med mer og mer komplekse legemiddelregimer. Til tross for dette er samarbeidet mellom apotekfarmasøyter og allmennleger begrenset. Tidligere forskning har funnet at mellommenneskelige aspekter er av særlig betydning for dette samarbeidet. Denne avhandlingen utforsker mellommenneskelige barrierer mot og fremmere for å bedre samarbeidsforholdet mellom apotekfarmasøyter og allmennleger gjennom å identifisere hvordan disse posisjonerer seg selv og hverandre.

Avhandlingen bygger på tre studier med følgende formål: 1) å utforske mellommenneskelige aspekter ved samarbeidet mellom apotekfarmasøyter og allmennleger; 2) å identifisere hvordan apotekfarmasøyter posisjonerer seg selv, og hvordan de blir posisjonert av allmennleger. I tillegg å vurdere i hvor stor grad posisjonene samsvarer, om posisjonene er forenlige med en proaktiv posisjon for farmasøytene, og hvordan posisjonene kan tenkes å påvirke samarbeidet; og 3) å identifisere hvordan allmennleger posisjonerer seg selv, og hvordan de blir posisjonert av apotekfarmasøyter relatert til makt og maktubalanse, samt å vurdere hvordan posisjonene kan tenkes å påvirke samarbeidet dem imellom.

Studie I var en metasyntese hvor vi syntetiserte funn fra 11 internasjonale kvalitative studier om samarbeid mellom apotekfarmasøyter og allmennleger. Vi benyttet metaetnografi som syntesemetode, og posisjoneringsteori ble brukt som teoretisk rammeverk for å støtte analysene. Vi fant at farmasøyter og leger som fortalte historier om et begrenset samarbeid hadde ulike *storylines* om samhandlingen dem imellom, mens farmasøyter og leger som fortalte historier om et bedre samarbeid hadde mer sammenfallende *storylines*. En proaktiv tilnærming fra farmasøytene overfor legene, bestående av konkrete kliniske anbefalinger som farmasøytene erkjenner ansvar for, ble identifisert som en fremmer av samarbeid.

Studie II og III var fokusgruppestudier, basert på ett sett med empiriske data. Dataene ble samlet inn i seks fokusgrupper bestående av ti norske leger og 12 norske farmasøyter. Dataene ble analysert ved bruk av systematisk tekstkondensering (STC), og posisjoneringsteori ble benyttet som teoretisk rammeverk. I studie II fant vi at apotekfarmasøytene posisjonerte seg selv som "siste skanse", "brobyggere", "outsidere – med ansvar, men med mangel på informasjon og autoritet" og "praktiske problemløsere". Allmennlegene posisjonerte apotekfarmasøytene som "et nyttig sjekkpunkt", "ikke-klinikere" og "ukjente". Vi identifiserte både likheter og forskjeller i hvordan farmasøytene posisjonerte seg selv og hvordan de ble posisjonert av legene.

I studie III fant vi at allmennlegene tildelte følgende posisjoner til seg selv: "allmennleger er autonome, ansvarlige, og dem som bestemmer", "allmennleger er portvakter for god kvalitet i helsetjenesten", "allmennleger er truet", "allmennlegers tid er dyrebar" og "allmennleger er ikke ufeilbarlige". Apotekfarmasøytene tildelte følgende posisjoner til allmennlegene: "allmennleger er dyktige, men travle", "allmennleger er på toppen av hierarkiet", "allmennleger er samarbeidsvillige og åpne for innspill", "allmennleger er ikke veldig hjelpsomme eller samarbeidsvillige" og "allmennleger må kvalitetsikres". Det var en tydelig tilstedeværelse av medisinsk dominans.

Våre funn tyder på at allmennlegers manglende bevissthet omkring apotekfarmasøyter og deres kompetanse, ansvarsområder og potensielle bidrag til et samarbeid, samt en maktubalanse i form av medisinsk dominans, er viktige barrierer mot samarbeidet dem imellom. En proaktiv tilnærming fra farmasøytene overfor legene, samt at farmasøytene erkjenner ansvar for sine faglige anbefalinger, ser ut til å kunne fremme samarbeid. I studie II og III identifiserte vi en felles *storyline* om gjensidig avhengighet mellom farmasøytene og legene, noe som representerer et mulighetsrom for samarbeid i en norsk kontekst. Funnene i denne avhandlingen tyder på at det å skape anledninger hvor de to profesjonene kan danne felles *storylines* er viktig med tanke på å legge til rette for samarbeid.

Abbreviations

CASP	Critical Appraisal Skills Programme
CP	Community pharmacist
CWR	Collaborative Working Relationship
DRP	Drug related problem
GP	General practitioner
HMR	Home Medicines Review
IPE	Interprofessional education
IPL	Interprofessional learning
NOU	Official Norwegian Reports (*Norges offentlige utredninger*)
STC	Systematic text condensation
TVEPS	Centre for Interprofessional Workplace Learning *(Senter for tverrprofesjonell samarbeidslæring)*
WHO	World Health Organization

List of Publications

Paper I Rakvaag, H; Søreide, GE and Kjome, RLS. (2020). Positioning each other: a metasynthesis of pharmacist-physician collaboration. *Professions and Professionalism*, 10(1), e3326.

Paper II Rakvaag, H; Søreide, GE; Meland, E and Kjome, RL. (2020). Complementing or conflicting? How pharmacists and physicians position the community pharmacist. *Pharmacy Practice*, 18(3), 2078.

Paper III Rakvaag, H; Kjome, RLS and Søreide, GE. (2023). Power dynamics and interprofessional collaboration: How do community pharmacists position general practitioners, and how do general practitioners position themselves? *Journal of Interprofessional Care*, 1-8.

Contents

1. Introduction

1.1 Collaboration between pharmacists and physicians – why?

The World Health Organization (WHO) defines collaborative practice in healthcare as occurring when "multiple health workers from different professional backgrounds provide comprehensive services by working with patients, their families, carers and communities to deliver the highest quality of care across settings" (World Health Organization, 2010). Interprofessional collaboration is perceived as an important strategy to strengthen healthcare systems, reduce healthcare costs, and improve health outcomes. Strengthening interprofessional competence and collaboration among healthcare workers is considered to be a rising need, in order to tackle the increased chronic disease burden due to an ageing population (National Center for Interprofessional Practice and Education, 2023; World Health Organization, 2010).

In an ageing population, more patients develop multimorbidity (the coexistence of two or more chronic conditions) (Salive, 2013). One consequence of this is an increase in the use of medicines. Polypharmacy (the concurrent use of multiple medicines) is increasingly common, and patients are treated with more complex medicine regimes. This increases the risk of drug-related problems (DRPs), and creates challenges related to patient safety (Roughead et al., 2011). The "WHO Global Patient Safety Challenge" is a WHO campaign that identifies different patient safety burdens that pose a significant risk to health. Their third Patient Safety Challenge had the theme of medication safety (Donaldson et al., 2017). While medicines are an important aspect of healthcare, they can also cause serious harm if used incorrectly. Medication errors and their consequences can lead to increased morbidity and mortality for patients, as well as significant costs for society. At a global level, the costs associated with medication errors have previously been estimated at US$ 42 billion annually (Donaldson et al., 2017).

In Norway, it has been estimated that 5-10 per cent of emergency admissions to hospitals' internal medical wards are due to DRPs, and that almost half of these could have been avoided (Meld.St. 28 (2014-2015)). Medication errors are estimated to cause as many as 490,000 extra bed-days at Norwegian hospitals, and around 1,000 deaths annually (Hauge, 2017).

The primary healthcare service in Norway is under increasing pressure after the introduction of a new political reform in 2012, which aimed to transfer more responsibility for patient treatment from the hospitals to the primary healthcare service (St.meld. 47 (2008-2009)). More patients are now being treated at the primary healthcare level, and many of these patients have multimorbidity and complex medication lists. This requires an increase in primary healthcare personnel's competence and the attention paid to patients' medication use.

In Norway, all residents with a Norwegian social security number have the right to be registered with a fixed general practitioner (GP). GPs are responsible for the treatment and follow-up of their patients. Since 2013, GPs have also been responsible for performing medication reviews for patients who take four medications or more, whenever this is regarded as necessary (*Forskrift om fastlegeordning i kommunene*, 2012, section 25). In recent years, however, Norwegian GPs have experienced a heavy and increasing workload, and GPs have expressed concern for patient safety and for the recruitment of new GPs (Svedahl et al., 2019). The situation in Norway today is that many patients do not have access to a fixed GP, due to recruitment issues (Brækhus & Kalveland, 2022).

In the Norwegian White Paper on Medicinal Products (Meld.St. 28 (2014-2015)), pharmacists are highlighted as a professional group with cutting-edge expertise on medicines, who should be used more effectively than is currently the case. This could help to ensure safe and high-quality medicine use for patients, and better utilisation of primary care resources. A recent report (Oslo Economics, 2022) estimates that if community pharmacists (CPs) could perform 20 per cent of the medication reviews that GPs are currently performing, 30,000 more patients would

have access to a fixed GP. The report also states that this type of pharmacist contribution would be of economic benefit, as well as in terms of increasing patient safety and relieving GPs of some of their workload. Another report (Oslo Economics, 2020), which has mapped the collaboration between CPs and GPs in Norway, concludes that CPs have professional expertise that should be better used to ensure high-quality use of medicines. However, this will require collaboration with the GPs, which is currently limited.

While the benefits of pharmacist-physician collaboration in Norwegian hospital settings have been established in several studies (Gjerde et al., 2016; Johansen et al., 2016), there is a gap in the research base from Norwegian primary care settings, where CPs and GPs have traditionally worked in isolation from each other. In certain other countries, such as the UK, Australia, New Zealand and the USA, pharmacist-physician collaboration in the primary care setting has come further. Research from these settings indicates good results, with positive patient outcomes, increased medication safety and a reduction of the GP workload resulting from pharmacist-physician collaboration (Bowers et al., 2018; Carson & Kairuz, 2018; Claire et al., 2022; Hampson & Ruane, 2019; Hwang et al., 2017; Jokanovic et al., 2016; Norton et al., 2020; Peterson et al., 2020).

In the UK, pharmacists have been integrated into general practices since 2015. Since 2019, Primary Care Networks of GPs have received reimbursement from the NHS for the cost of having pharmacists work in their network. The pharmacists support staff in medication-related queries, resolve minor ailments and perform tasks such as medication reviews and long-term condition management (British Medical Association, 2023). Evaluations from the UK show promising results, with data suggesting that pharmacists have a positive impact on health outcomes related to polypharmacy and long-term conditions. GPs and patients are mainly positive, with GPs valuing the medication expertise of the pharmacists, and patients appreciating the increased accessibility of care and the enhanced quality of the care received (Claire et al., 2022; Hampson & Ruane, 2019; Karampatakis et al., 2021).

In Australia, pharmacists and GPs engage in formalised collaboration in the Home Medicines Review (HMR) service, whereby pharmacists conduct home visits and medicine reviews after the patient has been referred to this service by a GP (Pharmacy Programmes Administrator, 2022). A study from Australia showed that pharmacists revealed several drug-related problems during these HMRs, and that there were considerable discrepancies between GPs' referral letters and the pharmacists' findings (Carson & Kairuz, 2018).

In the USA, primary care pharmacists provide clinical services in collaboration with physicians through an arrangement called a "Collaborative Practice Agreement" (CPA). This is a formal agreement by which a licensed provider makes a diagnosis, supervises patient care, and refers patients to a pharmacist, under a protocol that allows the pharmacist to perform specific patient care functions (Centers for Disease Control and Prevention, 2013). Studies from the USA have shown that collaboration between pharmacists and physicians in the primary care setting was associated with improved patient outcomes and reduced healthcare costs (Bowers et al., 2018; Kerelos & Gangoo-Dookhan, 2023; Norton et al., 2020).

1.2 Collaboration between pharmacists and physicians – how?

Previous research has identified various factors that influence the collaboration between pharmacists and physicians in primary care settings (Amin & McKeirnan, 2022; Bidwell & Thompson, 2015; Bradley et al., 2012; Bradley et al., 2008; Dey et al., 2011; Duncan et al., 2020; Gregory & Austin, 2016; Loffler et al., 2017; Mercer et al., 2020; Rathbone et al., 2016; Rieck, 2014; Rubio-Valera et al., 2012; Turner et al., 2019; Van et al., 2012; Van et al., 2013; Van et al., 2011; Weissenborn et al., 2017; Wustmann et al., 2013; Zillich et al., 2004).

In a systematic review, Bollen et al. (2018) aimed to identify factors that influence the interprofessional collaboration between CPs and GPs. The review was based on 36 studies of CP-GP collaboration, and the authors concluded that major collaboration challenges were a perceived imbalance in hierarchy and power between CPs and GPs, and a lack of understanding of each other's skills and knowledge. Factors that were found to enhance collaboration included an environment that enabled effective communication, close proximity between CPs and GPs, and understanding each other's capabilities and roles. All of the factors influencing CP-GP collaboration identified in Bollen et al.'s review are listed in Box 1.

Box 1. Factors influencing CP-GP collaboration (Bollen et al., 2018):

- Historical experience (with collaboration)
- Attitudes
- Role specification
- Feelings
- Hierarchy, power
- Trust and respect
- Communication
- Shared goals (confidence in outcomes)
- Capabilities
- Different perspectives
- CPs' contributions
- Environment
- Time
- Remuneration
- Access
- Management support
- Education, training

Several models have been developed to systematise and conceptualise the various influential factors of pharmacist-physician collaboration in primary care settings (Bardet et al., 2015; Bradley et al., 2012; Mcdonough & Doucette, 2001; Rathbone et al., 2016; Van et al., 2012; Van et al., 2013). The earliest and most widely cited model of pharmacist-physician collaboration is the "Collaborative Working Relationship" (CWR) model (Mcdonough & Doucette, 2001) (Figure 1). The CWR model was developed on the basis of previous theoretical models of interpersonal, business and healthcare relationships (primarily relating to nurses and physicians). The model presents four progressive stages of the pharmacist-physician relationship, with stage zero representing minimal exchange between the professions, and stage four representing a mutual commitment to the collaborative working relationship by both professions.

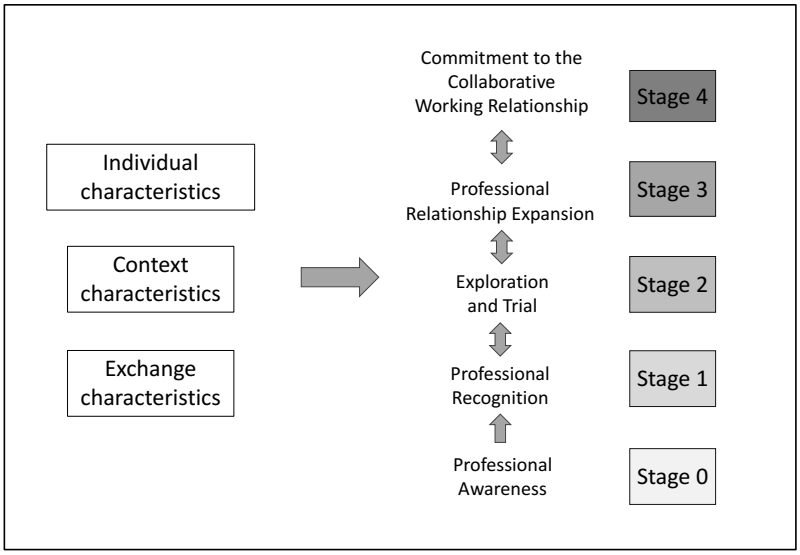

Figure 1: A reproduction of McDonough and Doucette's (2001) CWR model.

The CWR model also presents three categories of characteristics that affect the development of a collaborative relationship between pharmacists and physicians: the individual, context and exchange characteristics. The individual characteristics encompass the practitioners' personal variables such as age, education and professional background. The context characteristics encompass the practitioners' practice environment such as location, systems and organisational structure. The exchange characteristics comprise the nature and extent of social exchanges occurring between the practitioners, and include elements such as communication, power, conflict resolution and expectations of each other's competences. Each of these characteristics may play a role in the development of a collaborative working relationship by positively or negatively influencing the stage of development (Mcdonough & Doucette, 2001).

In Bradley et al.'s (2012) "Conceptual model of GP-pharmacist collaboration", the authors derived their model from interviews with GPs and CPs in the UK. The

professionals participating in the interviews were involved in service provision that required some form of collaboration. Bradley et al.'s model contains several key components of CP-GP collaboration, and the authors specifically highlight the importance of the components of communication, trust, professional respect and "knowing" each other.

In a study by Rathbone et al. (2016), the authors aimed to propose a model of interprofessional collaboration within the context of identifying and improving medication non-adherence in primary care. The model was derived from focus groups with CPs and GPs. The factors of communication, co-location, shared perspectives and trust are central elements in this model.

Several studies have aimed to determine the relative strengths of the various factors influencing pharmacist-physician collaboration in primary care settings. In a study by Zillich et al. (2004), the CWR model was tested in a primary care setting to determine which types of characteristics had the strongest influence on pharmacist-physician collaboration. The study found that the exchange characteristics (i.e. communication, power, conflict resolution and expectations of each other's competence) were the most influential relationship drivers.

In two studies by Van et al., the authors presented and tested two theoretical models of factors influencing CP-GP collaborative behaviour from the CP's perspective (Van et al., 2012) and from the GP's perspective (Van et al., 2013). The two models consisted of the same three categories of determinants: interactional, practitioner and environmental determinants. In the GP study, the authors found the interactional and practitioner determinants to be the strongest predictors of collaboration. In the CP study, the interactional determinants were found to be the strongest predictors of collaboration, and were in turn influenced by the practitioner determinants. The interactional determinants encompassed the elements of communication, trust, mutual respect and willingness to work together, whereas the practitioner determinants encompassed recognition of roles and expectations of each other.

In a study by Bardet et al. (2015), the authors reviewed previous theoretical models of collaboration between pharmacists and physicians in primary care, and presented a metamodel of physician-CP collaboration (Figure 2) derived from these models. In this metamodel, the elements of trust, interdependence, skills, interest in collaborative practice, role definition, communication, and perceptions and expectations about the other healthcare personnel were emphasised as key elements of collaboration. The elements of trust and interdependence were presented as the two core determinants of collaboration.

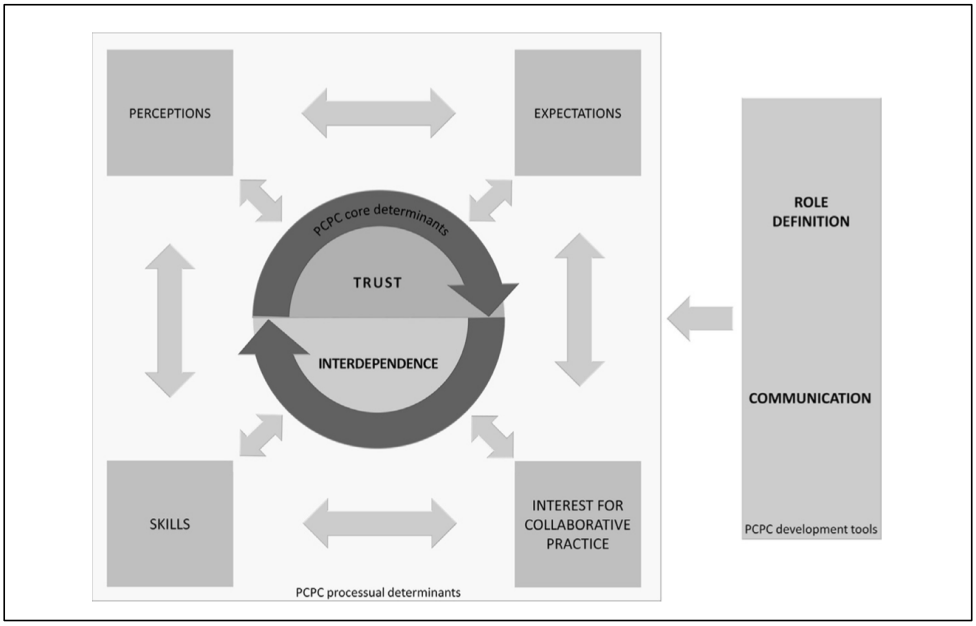

Figure 2: Bardet et al.'s (2015) meta-model of physician-community pharmacist collaboration (PCPC). The figure is reprinted with permission from the copyright holder.

The research referenced above suggests that *interpersonal* aspects are especially important drivers of collaborative relationships between pharmacists and physicians in primary care settings.

An Official Norwegian Report about the "pharmacies of the future" (NOU 2023: 2) has recently been published. Both this NOU and the latest White Paper on Medicinal Products (Meld.St. 28 (2014-2015)) state that successful collaboration between pharmacies and other parts of the healthcare sector is a prerequisite for proper treatment of patients and for correct and safe use of medicines, and that there is much underutilised pharmaceutical competence in Norwegian community pharmacies. The NOU mentions the necessity of CPs collaborating with prescribers. However, it is mainly the practical challenges related to this collaboration that are discussed, with a focus on new digital solutions for information exchange. The report has far less focus on the interpersonal aspects of CP-GP collaboration.

1.3 The scope of this thesis

This thesis focuses primarily on the *interpersonal* aspects related to the collaboration between CPs and GPs. In this thesis, we understand interpersonal aspects as those related to the exchange characteristics of the CWR model (see page 22). While several other aspects may also influence CP-GP collaboration, such as contextual aspects (i.e. remuneration, data systems and practice locations), and individual characteristics of the practitioners (i.e. level of education, gender, medical specialty and age), we chose the interpersonal aspects as our primary focus. This choice was made due to the previous identification of these aspects as especially important drivers of CP-GP collaboration (Bardet et al., 2015; Doucette et al., 2005; Zillich et al., 2004). This delimitation also served to narrow down the scope of the thesis, allowing us to explore the interpersonal aspects in more depth. However, it is neither possible, nor desirable, to create a sharp distinction between the interpersonal aspects and other aspects that can affect the collaborative relationship between CPs and GPs, as these are closely connected. This thesis will therefore also touch upon and discuss other aspects that affect collaboration.

Since it is plausible that different professional cultures in different countries could affect interpersonal relations between pharmacists and physicians, we wanted to explore the CP-GP collaborative relationship in a Norwegian context. Also, since

power differentials among pharmacists and physicians are identified as one of the factors that can have an impact on the CP-GP collaborative relationship (Bollen et al., 2018), Norway represents an interesting research setting for studying this relationship, since it is a country recognised as having a relatively egalitarian employment and work sector (Skarpenes & Sakslind, 2010).

1.4 Theoretical framework

A theoretical framework can provide access to distinctive positions and lines of thought to better explain and understand the phenomenon in question. Hence, theoretical frameworks can be seen as "tin-openers" that provide a sharper focus and a more specific interpretation of empirical data. This increases the possibility of coming up with novel insights and interpretations, compared to adopting a more descriptive approach (Malterud, 2016).

To sharpen our interpretative focus when analysing the data for the individual papers, and to inform our interpretation and understanding of the overall findings, this thesis draws on positioning theory (Harré & Langenhove, 1999). Positioning theory originates from the field of social psychology. The theory's main focus is on the assignment of various personal attributes, roles, characteristics, abilities, rights, duties or responsibilities to individuals or groups of people, which in turn enable or restrict certain actions for these people in society (Harré & Langenhove, 1999; Kayı-Aydar, 2019). Positioning theory provides an interesting "lens" when studying interprofessional collaboration, as it can inform us about the different professions' "scope of action" as perceived by themselves and by their collaborating professions.

Positioning theory has previously been used in pharmacy research to examine the positioning of pharmacists' roles in governmental documents (Hughes et al., 2017). In the aftermath of the publication of the three papers presented in this thesis, positioning theory was also used in a pharmacy research study to investigate the interprofessional collaboration between GPs and CPs in connection with correct use of antibiotics (Bergsholm et al., 2023). The authors state in their paper that they

"follow up" on the studies presented in our Paper I (Rakvaag, Søreide, & Kjome, 2020) and Paper II (Rakvaag, Søreide, Meland, et al., 2020).

More detailed descriptions of positioning theory are given in Paper I (page 3), Paper II (pages 1-2) and Paper III (Rakvaag et al., 2023) (page 2).

2. Research aims

The overarching aim of this thesis is to investigate the interprofessional collaborative relationship between community pharmacists and general practitioners.

We aim to answer the following research questions:

- How do community pharmacists and general practitioners position themselves and each other?
- What are the identified interpersonal barriers to and facilitators of community pharmacist-general practitioner collaboration?

Three studies are part of this thesis. They have the following research aims:

> ***Study I:*** *To explore the interpersonal aspects of the collaboration between community pharmacists and general practitioners.*
>
> ***Study II:*** *1) To identify how community pharmacists position themselves, and how they are positioned by general practitioners. 2) To assess how well these positions correspond, how the positions align with a proactive position for the pharmacists, and how the positions could impact collaboration.*
>
> ***Study III:*** *1) To identify how general practitioners position themselves, and how they are positioned by community pharmacists in relation to power dynamics. 2) To assess how the identified positions could impact collaboration.*

3. Methods

This thesis is based on three papers, reporting from studies using two different research designs. Paper I reports from a metasynthesis, while Papers II+III report from focus group studies based on one empirical dataset. A methodological overview of the papers is presented in Table 1.

Table 1. Methodological overview of the papers included in this thesis

Paper	Design	Material/population	Data analysis
I	Metasynthesis	11 qualitative studies	Meta-ethnography
			Positioning theory framework
II+III	Focus group study	12 pharmacists	Systematic text condensation
		10 physicians	Positioning theory framework

In this research project, we started out with a metasynthesis of international studies of CP-GP collaboration (Paper I) to explore the research field and identify aspects to investigate further in a Norwegian context (Papers II+III). We created the research aims for Papers II+III based on the findings from Paper I.

3.1 Study I: Metasynthesis

3.1.1 Research design

A metasynthesis is a systematic review based on the integration of findings from primary qualitative studies. It is a suitable approach to gain new insight based on the interpretation of previous research (Malterud, 2017a; Thorne et al., 2004). This methodological approach was considered suitable for our first study, where our aim

was to explore existing research of collaboration between CPs and GPs to gain new insight into the research field, and to help shape the aims and interview guides for studies II and III.

A metasynthesis can be performed using a variety of different methods (Barnett-Page & Thomas, 2009), of which meta-ethnography (Noblit & Hare, 1988) is one. The qualitative synthesis methods can be broadly divided into two main categories, based on their underlying epistemology, the idealist (configurative) methods of synthesis and the realist (aggregative) methods of synthesis (Barnett-Page & Thomas, 2009). One could also think of this as a continuum, where the different methods range from the most idealist-oriented to the most realist-oriented. The idealist and realist epistemology hold substantially different positions regarding the construction of knowledge. While the most idealist-oriented believe that there is no shared reality, only different human constructions, the most realist-oriented believe that there is a reality that exists regardless of human constructions, and that this reality can be observed directly (Barnett-Page & Thomas, 2009). In between, there are different nuances of these two opposing positions. Meta-ethnography is oriented towards the idealist side of this spectrum, but is not among the most idealist-oriented methods.

When deciding on which type of method to use, one needs to question what the goal of the synthesis is; who is going to use the results and for what purposes? If the goal is to deliver clear conclusions that can be used by stakeholders to inform policy and practice, a realist-oriented approach might be the best approach. If the goal is to "go beyond" the original data to gain a fresh interpretation of the phenomena under review, in order to develop a deeper insight that could be used to inform further research, then an idealist-oriented approach might be best suited (Barnett-Page & Thomas, 2009; Gough & Thomas, 2016).

After considering the different synthesis methods available, meta-ethnography was chosen as a suitable method. This choice was based on several factors. The purpose of our study, to gain new insight and inform future research, made it

appropriate to choose a method from the idealist category, such as meta-ethnography (Barnett-Page & Thomas, 2009; Campbell et al., 2011; Malterud, 2017a). Meta-ethnography is also regarded as a suitable synthesis method for novice qualitative researchers, due to its relatively explicit, structured and stepwise approach (Barnett-Page & Thomas, 2009; Malterud, 2017a). In addition, meta-ethnography is one of the most widely used metasynthesis methods, and there are several worked examples where meta-ethnography has been applied, discussed and evaluated (Britten et al., 2002; Campbell et al., 2011; Pound et al., 2005). An explicit approach and worked examples were valuable to us, since this was the first time we performed a metasynthesis.

In the original presentation of meta-ethnography from 1988, Noblit and Hare describe the procedure in seven steps (Noblit & Hare, 1988). Although the method has been used increasingly within healthcare research during recent years, Atkins et al. (2008) state that many aspects of these seven steps still remain ill-defined. With this in mind, Atkins et al. have discussed the methodological and practical challenges that might be faced when using meta-ethnography. In their paper, they describe each of the seven steps, and suggest additional steps that may be useful in clarifying the meta-ethnographic procedure. When performing our metasynthesis, we used Atkins et al.'s interpretations to concretise the content of each of the steps. A detailed description of the seven steps, as well as our application of these steps aided by the interpretations of Atkins et al., can be found in Paper I (pages 3-11).

3.1.2 Search strategy and study selection

In the meta-ethnographic procedure, there is no clear guidance on how to build the search strategy. To help select relevant databases, create suitable search strategies for the different databases, and perform the database searches, we were assisted by an academic librarian from within the medical field, who is an expert on database searching.

We decided to aim for a comprehensive search, using multiple medical databases. The systematic search was supplemented with "snowballing" and

additional “free searching” in medical databases and on Google Scholar. The detailed search strategy is presented in Paper I (pages 25-28).

We decided on the following inclusion criteria: empirical qualitative studies, written in English or a Scandinavian language, published between 2010 and 2017, and containing findings about interpersonal aspects of collaboration between community pharmacists and physicians in primary care. Studies concerning pharmacists integrated in a primary healthcare team or located in a physician’s practice were excluded. This choice was mostly due to the likelihood that these types of settings would influence the interpersonal relationships in different ways to the typical primary care setting, where CPs and GPs most often work physically isolated from each other. It was also a pragmatic choice to limit the number of studies included in the synthesis.

After selecting the 11 studies that met our inclusion criteria, the studies were quality assessed using the Critical Appraisal Skills Programme (CASP) checklist for qualitative research (Critical Appraisal Skills Programme, 2017). The checklist consists of ten questions that are designed to help researchers think systematically about different issues concerning qualitative research. The decision to use this specific tool was based on its previous use in meta-ethnographic studies (Campbell et al., 2011; Parslow et al., 2017). Although there were some shortcomings in some of the primary studies, such as a superficial description of the analytical process, or lack of a theoretical framework, all of the studies were considered to be of acceptable quality.

3.1.3 Synthesis

A detailed description of the synthesis process can be found in Paper I (pages 10-11).

3.2 Studies II+III: Focus groups

3.2.1 Research design

A focus group design was selected as suitable for studies II+III, where we were interested in exploring the opinions of pharmacists and physicians as representatives of their respective professions. In this type of situation, where one is interested in the shared opinions, attitudes and experiences of a group, rather than those of an individual, a focus group design is particularly suitable (Krueger & Casey, 2009; Malterud, 2017b). A focus group design has the strength that it can exploit the interaction between the study participants. As a conversation unfolds in the group, the participants are stimulated to reflect on and respond to the experiences of the others (Krueger & Casey, 2009; Malterud, 2017b).

The composition of a focus group should preferably consist of participants with similar backgrounds and experience, so that the participants can relate to one another (Malterud, 2017b). In this project, profession-specific focus groups, with pharmacists and physicians in separate groups, were considered an appropriate way of collecting data. The profession-specific focus groups gave good support for the participants to express their honest opinions on the research topic, and to elaborate on each other's experiences. Homogeneous focus groups are also recommended in order to prevent tensions within the groups (Malterud, 2017b).

3.2.2 Recruitment and participants

The recruitment process was based on both convenience and purposive sampling principles (Lopez & Whitehead, 2013), as the premises for our strategic recruitment were that the participants had to be pharmacists or physicians with previous or present work experience from a community pharmacy or general practice, respectively. The recruitment process was also pragmatic in the sense that we recruited professionals with whom we could get in touch and who were interested in participating. In total, we recruited 22 participants, distributed on six focus groups. This total sample of participants represented a broad variety of backgrounds and experience in terms of age, gender, ethnicity/country of origin, years of work

experience and practice setting/type (urban/rural, small/big, etc.). The details of the recruitment procedures, as well as the characteristics of the participants, are described in Paper II (pages 2 and 4).

3.2.3 Data analysis

Systematic text condensation (STC) is a method of thematic cross-case analysis of qualitative data, inspired by the analytical procedures in Giorgi's psychological phenomenological analysis (Malterud, 2012). The main reason for choosing STC is that it is well suited to be combined with a separate theoretical framework, such as positioning theory, as STC is not heavily anchored in theory. STC is also a systematic method, consisting of clearly defined constructive analytical steps. This makes the analytical approach practical and intuitive to use, also by novice qualitative researchers. STC consists of the following four steps: (a) getting an overview of the data, (b) organising the data by coding the text and identifying meaning units, (c) systematic abstraction of meaning units by writing condensates, and (d) recontextualisation by synthesising the condensates and developing descriptions and concepts (Malterud, 2012). A detailed description of our specific procedure when applying this method in combination with positioning theory, as well as an example illustrating the analytical process, can be found in Paper II (pages 2-3).

3.3 Ethics and approval

The Norwegian Centre for Research Data (NSD) approved our plan for handling the research data and participant information. All participants in the focus groups signed a written informed consent form after receiving written and verbal information about the project. They were informed both verbally and in writing that they could withdraw from the study at any given point in time without having to give any reason.

When analysing the data and writing the papers we made sure that the participants could not be identified. Transcripts were anonymised so that participants, places and third parties could not be identified. Names of people and places were changed in or removed from final statements and descriptions in the papers.

Transcription started soon after completion of the focus group meetings, and the audio files were deleted immediately after each transcription was completed. Anonymised transcripts were kept separately from audio files and participant lists.

4. Summary of findings

4.1 Paper I

Rakvaag H, Søreide GE, & Kjome RLS.
Positioning Each Other: A Metasynthesis of Pharmacist-Physician Collaboration.
Professions and Professionalism. 2020;10(1):e3326.

In this paper we examined the interpersonal aspects of the collaboration between CPs and GPs, as perceived by the professionals themselves. A metasynthesis of the findings from previous qualitative studies showed that there were two main sets of stories told by the CPs and GPs: stories about limited collaboration and stories about successful collaboration. Within these two sets of stories, we identified how the CPs and GPs positioned themselves and each other through reflexive and interactive positioning.

The storylines of limited collaboration
The CPs and GPs who told stories about limited collaboration had differing storylines regarding their collaborative relationship. While the CPs wished for better collaboration with the GPs, and held the opinion that such collaboration would benefit the patients, the GPs had doubts about the possible benefits for others than the CPs themselves. The GPs positioned themselves as delivering good enough patient care on their own and showed limited interest in and awareness of the CPs' competences and possible contributions to a collaboration. We found the clear presence of a hierarchical structure and territorial behaviour among the GPs, with the GPs positioning themselves as more competent than the CPs. The CPs positioned themselves as clinically competent to solve patients' medication-related problems, yet they positioned themselves as dependent upon the GPs to be able to make such contributions, and like the GPs, they positioned the GPs as having the final responsibility for patient outcomes.

The CPs were positioned by the GPs as encroachers into the GPs' domain. The CPs, on the other hand, described being careful about stepping into the GPs' territory, and described trepidation towards confronting GPs about clinical issues, based on previous negative experiences. The CPs were also positioned by the GPs as "shopkeepers" or businesspeople and were not regarded as being part of the healthcare system on an equal footing with other healthcare personnel. Based on this position, the GPs mistrusted the CPs' agenda and expressed uncertainty about their clinical abilities. The CPs had to gradually earn the GPs' trust by proving their clinical skills over time.

The storylines of successful collaboration

The CPs and GPs who told stories about successful collaboration were found to have more coinciding storylines about their collaborative relationship. The main narrative in these storylines was that both professions had a mutual interest in collaborating, and a shared motivation to improve patient care. Both CPs and GPs acknowledged a personal relationship or knowing each other as important for successful collaboration, and perceived this as essential, primarily because it made the GPs aware of the CPs' competences, services and possible contributions to a collaboration. In this regard, both professions positioned the CPs as those who should initiate and maintain a relationship and collaboration with the GPs. A proactive approach by the CPs was found to be an important factor to foster successful collaboration.

Conclusion

CPs and GPs who told stories about limited collaboration had differing storylines about the cooperation between them, whereas CPs and GPs who told stories about successful collaboration had more coinciding storylines. Successful collaboration between the two professions may require the CPs to reposition themselves by adopting a proactive approach towards the GPs. This proactive approach should comprise the delivery of specific clinical advice, for which the CPs acknowledge responsibility.

4.2 Paper II

Rakvaag H, Søreide GE, Meland E, Kjome RL.
Complementing or conflicting? How pharmacists and physicians position the community pharmacist.
Pharmacy Practice. 2020;18(3):2078.

In this paper we examined CP-GP collaboration in a Norwegian context. We used positioning theory to identify how community pharmacists positioned themselves and how they were positioned by general practitioners.

Analysis of the focus group data revealed the following reflexive positions assigned to the pharmacists by themselves: “a last line of defence”, “bridge-builders”, “outsiders – with responsibility, but with a lack of information and authority” and “practical problem solvers”. The interactive positions assigned to the pharmacists by the GPs were: “a useful checkpoint”, “non-clinicians” and “unknown”.

The analyses revealed both commonalities and differences in how the CPs positioned themselves and how they were positioned by the GPs. While both professions positioned CPs as a final security checkpoint, there were several differences in the CPs’ and the GPs’ positioning of the CPs’ roles and responsibilities. Differences were primarily found regarding the CPs’ level of responsibility, the CPs’ professional autonomy and the CPs’ place in the counselling of patients. Overall, the CPs were found to position themselves as having a higher level of responsibility than the GPs perceived them to have. However, the CPs also reported difficulties in fulfilling their perceived responsibility due to external obstacles, such as a lack of information and lack of authority.

GPs and CPs agreed that CPs lacked authority, although the CPs still positioned themselves as having professional autonomy, while the GPs positioned them as non-autonomous. In the CPs’ reflexive position as bridge-builders, the CPs viewed it as an important responsibility to support the GPs by informing patients about medication-related issues. However, the GPs described how they did not

appreciate clinical information being given directly to patients by the CPs. This conflicting positioning of the CPs, with the CPs assigning rights and duties to themselves that go beyond those assigned to them by the GPs, is a source of intergroup conflict, and represents a challenge to collaboration.

We found that the GPs assigned rather passive positions to the CPs, as checkers of what others had decided and with limited responsibility and autonomy. In comparison, the CPs assigned more diverse positions to themselves, from the rather active position as bridge-builders who independently counsel patients, to the rather passive position as the last line of defence, described by most CPs as following rules and double-checking what the GPs had decided.

Finally, one of the clearest positions that emerged was the GPs' positioning of the CPs as unknown. While the CPs often positioned themselves with reference to the GPs, the GPs had few thoughts about CPs in comparison, and expressed that they knew little about the CPs' tasks, responsibilities, skills and knowledge.

Conclusion

Enhancing the two professions' knowledge of each other is suggested as an important step towards creating new positions that are more coordinated, and thus more supportive of collaboration. The GPs' positioning of CPs as unknown represents a barrier to collaboration, and increasing the GPs' knowledge of CPs and their competence could help enhance GPs' trust in CPs. It might also contribute to the GPs assigning more active positions to the CPs. Increasing the CPs' knowledge about the GPs is also important in order to make the CPs better equipped to recognise what matters to the GPs, and thereby enable the CPs to channel their contributions into areas where they are appreciated and where they avoid undermining the GPs.

4.3 Paper III

Rakvaag H, Kjome RLS & Søreide GE.

Power dynamics and interprofessional collaboration: How do community pharmacists position general practitioners, and how do general practitioners position themselves?

Journal of Interprofessional Care. 2023:1-8.

In this paper we identified how Norwegian GPs positioned themselves and how they were positioned by CPs, with focus on the power dynamics in their interprofessional relations. Analysis of the focus group data revealed the following reflexive positions assigned to the GPs by themselves: "GPs are autonomous, responsible, and in charge", "GPs are healthcare quality gatekeepers", "GPs are threatened", "GPs' time is precious" and "GPs are not infallible". The interactive positions assigned to the GPs by the CPs were: "GPs are skilled but busy", "GPs are at the top of the hierarchy", "GPs are cooperative and open to input", "GPs are not very helpful or cooperative" and "GPs must be looked after and controlled[1]". A total overview of the positions identified in Papers II and III can be found in Appendix 1.

We found that several of the identified positions, both among the reflexive and interactive positions, contained aspects that could be described as medical dominance. Most of these could be seen as barriers to collaboration. Although the storyline of medical dominance was found to be strong, our analyses also illuminated positions and storylines that highlighted other aspects more conducive to collaboration. Some of the identified positions were ambiguous, which in itself indicates that the positions are not entirely fixed, and that there is room for creating new or further developing alternative storylines that are more promising for collaboration.

[1] In the paper we use the term "controlled", directly translated form the Norwegian term "kontrollert". However, in hindsight, "quality-checked" is a more accurate term.

One instance of ambiguity was identified from the CPs' interactive positioning and the GPs' reflexive positioning, whereby both professions positioned GPs as being highly skilled and autonomous, and as having the main responsibility for patients, yet simultaneously as being dependent on the pharmacists for quality control. Here, the GPs and CPs drew on a coinciding storyline concerning GPs' autonomy, dependence, challenges and need for support. In relation to this, we identified an overlap in the GPs' reflexive position "GPs are not infallible" and the CPs' interactive position "GPs must be looked after and controlled". This positioning of GPs as being dependent on CPs adds to the CPs' unchallenged dependency on GPs, thereby creating a new storyline that positions the two professions as interdependent partners. This narrated relationship of dependency is promising with regard to collaboration.

Conclusion

The presence of medical dominance poses challenges, even in an egalitarian Norwegian setting. However, although both GPs and CPs draw on a medical dominance storyline, both CPs and GPs also draw on alternative and promising storylines of collaboration between the two professions. Also, ambiguity in the identified positions indicates that the positions are not entirely fixed, and that there is room for creating new or further developing alternative positions and storylines that are more promising for collaboration.

5. Discussion

5.1 Methodological considerations

In this section, I will discuss how my professional background and preconceptions, the research design and the theoretical framework are of significance to the research findings and conclusions.

5.1.1 Validity

In this thesis, the concept of *validity* (Pope & Mays, 2020, p. 216) is understood as concerning how accurately our findings reflect the phenomena studied and how confident we can be in our conclusions. A relevant concept in relation to validity is that of *reflexivity*, which entails the researchers' awareness of their influence on the research process, interpretations, findings and conclusions (Olmos-Vega et al., 2023).

At the beginning of my work on this thesis, I wrote down my preconceptions about the collaborative relationship between CPs and GPs. With a professional background as a CP for almost ten years, I have first-hand experience of the limited contact and lack of collaboration between CPs and GPs. I have also experienced how this lack of collaboration can affect patients negatively. I have experienced many times how there might be issues with a prescription, or that the information the patient received from their GP might deviate from or contradict the information I want to give them as a pharmacist. In these situations, I would try to contact the GP, but it was not always possible to make contact to clarify the issue there and then. I therefore sometimes ended up having to use the patient as a "messenger", with the risk of misunderstandings arising along the way.

However, my experience is that most GPs are grateful whenever they are notified by the pharmacy of errors or problems with prescriptions they have written. To conclude, my preconception regarding the collaboration between CPs and GPs is that this collaboration is limited, and that it is mostly the pharmacist who contacts the

physician. I perceive the GPs as busy, but in my opinion the majority are easy to collaborate with, once you can get hold of them.

My professional background and closeness to the research field could entail both benefits and drawbacks. When moderating the focus groups with pharmacists, being a pharmacist myself made it easy for me to relate to many of the pharmacists' descriptions and stories. In this way, I may have unconsciously recognised, affirmed and encouraged narratives and statements that agreed with my own experiences. There is also the risk that my lack of distance from the topic could have made me take for granted what the participants meant by what they said, and hence fail to ask sufficient follow-up questions. However, being a pharmacist was also a strength in that I could easily understand what the participants spoke about and was able to ask relevant follow-up questions. The participants were aware that we had a common professional background, and this may have contributed positively, in that the pharmacist participants spoke more openly and honestly, and we could communicate well, based on common experience.

Being a pharmacist and a moderator in the focus groups with the physicians could potentially have had the opposite effect, namely that the physician participants did not speak sufficiently honestly about their perceptions of pharmacists. In one focus group, where both the moderator and co-moderator were pharmacists, we did experience the physicians being very positive towards pharmacists. However, the physicians in this group also came up with several critical and negative accounts of pharmacists, which suggests that this effect was not profound.

As a counterbalance to the potential influence my professional background as a pharmacist could have on the participants in the focus groups, we used moderators and co-moderators with various academic backgrounds (including an educational researcher and a GP) in most of the focus groups. We also compared the findings from the different focus groups to look for potential differences that could be attributed to the moderators' different professions, but did not find any significant differences between the groups.

In the analytical processes, my own professional experience may have contributed to my having a focus on the "pharmacy perspective". During the analytical process of study III, where the aim was to identify the positioning of the GPs, I became aware that I tended to shift my focus towards the pharmacists. I had to work actively to shift my focus back towards the GPs. To counterbalance my "pharmacy perspective", both of my supervisors were involved throughout the entire research process from the design of the research questions to the analyses and interpretations of the overall findings. Although my main supervisor is a pharmacist by profession, she has never worked as a community pharmacist. She has also been part of an academic network of general practitioners for several years. Her preconceptions were therefore different from mine. My co-supervisor, who is a researcher from a different field (education), had no previous experience with the field of pharmacy, and had limited preconceptions about the research topic. This helped nuance my "pharmacy perspective" and raised several new perspectives. When working with the interview guides for studies II and III, we added a senior GP researcher to the team, to ensure a "physician perspective". This researcher also participated as a co-author for Paper II.

Another concept that can be used to increase the credibility and validity of research findings is that of *triangulation* (Noble & Heale, 2019). Triangulation can involve different procedures, and hold different purposes. It can entail using different datasets, methods or researcher perspectives as a "control function", or as an opportunity to gain access to a breadth of different inputs and interpretations (Noble & Heale, 2019). In this thesis, we used *investigator* triangulation by involving multiple researchers with different professional backgrounds in the analyses and interpretations (Malterud, 2017b; Noble & Heale, 2019). By using investigator triangulation, we experienced that we could supplement and contest each other's interpretations. We used *data* triangulation by applying two different approaches when collecting our data: metasynthesis and focus groups (Malterud, 2017b; Noble & Heale, 2019). We also analysed two different datasets, from an international setting and from a Norwegian setting, involving both CP and GP participants. By using data triangulation, we could compare our findings across an international and a Norwegian

context. We found coherence across our findings, and across the different study settings, which strengthens the validity.

Validity can also be affected by the choice of research design. Our choice to use a metasynthesis design (Thorne et al., 2004) in our first study followed by a focus group design (Krueger & Casey, 2009) in our second and third studies was beneficial, as the metasynthesis provided insight which helped guide our focus towards relevant interpersonal elements to explore further in the focus group studies. The focus group design gave access to a variety of experiences and ways of understanding and portraying the two professions, which provided nuances and tensions in the identified positions.

Positioning theory (Harré & Langenhove, 1999) was used as a framework to support our analyses, with a special focus on intergroup positioning (Tan & Moghaddam, 1999). This choice of perspective made it possible to carry out focused analyses that provided answers to our research aims. A more detailed description of our use of positioning theory, and the benefits and outcomes provided by this framework, is given on pages 58-60.

5.1.2 Relevance

The concept of *relevance* (Pope & Mays, 2020, p. 221) concerns the usability of the study findings. Research can be relevant by either adding to knowledge or supporting existing knowledge. Relevance is closely related to the terms *external validity* and *transferability*, which concern the extent to which the study findings can be transferred to other settings beyond the study setting (Malterud, 2001; Pope & Mays, 2020). Two factors that affect a study's relevance are the study sample and transparency in reporting of the study context (Malterud, 2001). In the following, I will discuss the study samples, while transparency is discussed in a separate section.

A metasynthesis design has the benefit that by combining findings from several primary studies, data from a relatively large number of participants from various settings can be included. Our metasynthesis (Paper I) included 11 primary studies from seven different countries. Although it might bring additional findings, a

larger number of included primary studies is not necessarily better. This is due to the risk of losing an overview and not being able to go into depth, thereby ending up with a superficial analysis (Malterud, 2001). It is therefore necessary to obtain a balance between including too many and too few primary studies (Campbell et al., 2011; Ring et al., 2010). We perceive the included studies to be sufficient for the purpose of our metasynthesis. We found coherence in findings across the different primary study settings, which enhances the relevance of our study.

When deciding on how many participants were needed for the focus groups (studies II and III), we chose to use the concept of *information power* as a guide (Malterud et al., 2016). The information power of a sample is related to how narrow or wide the research question is, how specific and varied information the participants can deliver regarding the research question, whether or not one uses a theoretical framework, the quality of the dialogue in the focus groups and the choice of analytical strategy (Malterud et al., 2016).

The empirical data for studies II and III was collected from six focus groups with ten physicians and 12 pharmacists. Although this is not a large number of participants, it was considered a sufficient number for the purpose of our studies, based on the following assessments: the research questions were focused on specific features, and the participants had the capacity to deliver specific information with relevance for the research questions. The data produced in the focus groups was good and information-rich, and the analyses were supported by a theoretical framework.

It may be a limitation in terms of relevance that the Norwegian participants were all recruited from one geographical area of Norway. However, the participants were from both urban and rural settings, and from GP practices and pharmacies of various sizes and locations. We perceived it to be more likely that these factors would have an impact on the collaboration, rather than the geographical affiliation of the participants. We experienced that a varied selection of research participants in terms of age, gender, ethnicity/country of origin and years of experience brought forward a breadth of relevant stories, opinions and experiences.

The overall design of our research project, using a metasynthesis study as a preparation for our focus group studies, also strengthened the coherence and relevance of our research project.

5.1.3 Transparency

An open and exhaustive description of all aspects of the research process ranging from the method of data collection, analysis and theoretical framework to the participant demographics, study context, and the researchers and their preconceptions, is important for both validity and relevance. Transparent reporting of a study entails that the readers of the paper should be able to consider the way the data was gathered and analysed, and hence judge the evidence on which the study conclusions are based. Readers should also be able to evaluate whether the findings can be applied in other settings than the study setting, and ascertain for which situations the findings might provide valid information (Malterud, 2017b; Pope & Mays, 2020).

To ensure transparency, the papers presented in this thesis contain thorough and detailed descriptions of the applied theoretical framework, methods and analysis processes, as well as the contextual background material (primary studies in Paper I, and participant demographics and study setting in Papers II+III) and researchers' reflexivity. Both of the applied methods, meta-ethnography and systematic text condensation, consist of specific analytical steps that are well-described in the literature (Malterud, 2012; Noblit & Hare, 1988). In the reporting of our meta-ethnography (Paper I), we have described the analytical process in even more detail by referring to Atkins et al.'s (2008) interpretations of the seven analytical steps (see page 33). We have also used the eMERGE guidance for the reporting of meta-ethnographies (France et al., 2019). This enhances transparency and strengthens validity and relevance.

5.2 Discussion of findings

A prominent finding across all three papers presented in this thesis was the GPs' limited knowledge and awareness of CPs and their competences, roles and responsibilities, which represents a barrier to collaboration (Papers I-III). A potential counterbalance to this barrier, and a facilitator of collaboration, is that the CPs take a proactive approach towards the GPs (Papers I+II). Aspects of medical dominance were also identified in all three papers, and represent another barrier to collaboration (Papers I-III). Our analyses of the data from the international studies showed that CPs and GPs who told stories about limited collaboration had differing storylines about the collaborative relationship between the two professions, whereas CPs and GPs who told stories about successful collaboration had more coinciding storylines about their collaborative relationship (Paper I). In the Norwegian context we identified a shared storyline of interdependence between the CPs and GPs, which shows potential for collaboration (Papers II+III).

In the next sections, I will discuss these main findings in relation to the different study contexts, previous research, and the theoretical framework of positioning theory. I will also discuss what these findings could entail in relation to education and practice.

5.2.1 GPs' lack of knowledge of pharmacists

Knowing each other and understanding each other's knowledge, skills, capabilities and roles have been previously identified as important for collaborative practice in general (Suter et al., 2009), as well as for CP-GP collaboration specifically (Bollen et al., 2018). GPs' lack of knowledge and awareness of CPs thereby constitutes an important barrier to collaboration (Papers I+II). The Norwegian GPs' interactive positioning of CPs as "unknown" entails that GPs rarely have professional relationships with individual CPs, and also that GPs have little knowledge of pharmacy as a profession, and about CPs' roles, responsibilities and expertise. This is in line with the findings of Blöndal et al., who investigated Icelandic GPs' perceptions of pharmacists as healthcare professionals, and found that the GPs were

not aware of the pharmacists' potential as a profession, or their possible input on patient care (Blondal et al., 2017).

There may be several explanations for the "anonymity" of the CPs. One obvious explanation is that the GPs do not have to deal with CPs in their everyday work routines, except when the CPs contact them regarding a prescription. The CP is a fairly peripheral collaborator compared to the full range of healthcare personnel with whom GPs need to interact frequently, such as nurses working in the home nursing service and various professions at the hospitals. CPs, on the other hand, have to deal indirectly with GPs multiple times every day when they dispense their prescriptions, and GPs are thus the main profession with whom the CPs have to engage in their everyday work routines. Another factor that may contribute to the CPs' anonymity is their lack of a clear and distinct professional role. Traditionally, an important part of the CP's job consisted of manufacturing medicines. With the emergence of a pharmaceutical industry, this task is no longer performed in community pharmacies, and CPs have had to redefine their professional role. In recent decades, the CPs' role has come to overlap with the roles of other professions (Reebye et al., 2002; Schindel et al., 2017). Finally, the sparse representation of pharmacists in the public space may also contribute to their anonymity. Pharmacists are seldom present in public debates in the media when medical issues are discussed, whereas other healthcare professionals such as physicians, nurses, nutritionists and psychologists are involved in such debates far more frequently.

5.2.2 Proactive CPs who demonstrate their value and take responsibility

Our findings emphasise a greater need for GPs to expand their knowledge and understanding of the CPs and their competence and roles, than the other way around. Our findings further suggest that this knowledge can most easily be achieved through the CPs acting in a proactive manner towards the GPs, since the GPs lack clear incentives to approach the CPs (Papers I-II).

To be proactive can be defined as "acting in anticipation of future problems, needs, or changes" (Merriam-Webster (n.d.)). A proactive approach by CPs entails

that the CPs initiate a relationship with the GPs to make them aware of the CPs' potential value in a collaboration. The CPs should also be the ones to maintain collaboration with the GPs (Papers I - II). This is in line with the findings of Blöndal et al. (2017), who suggest that in order to increase collaboration between GPs and pharmacists, it is necessary for pharmacists to demonstrate their potential to GPs.

Our findings suggest that, in addition to being proactive in demonstrating their potential value to GPs, CPs must also be willing to provide concrete clinical advice to GPs in situations where they have the necessary information and competence to do so, and most importantly, they must acknowledge responsibility for their advice (Papers I-III). Already in 1998, Cipolle et al. suggested that pharmacists must accept more responsibility as an important aspect of expanding their role. The authors introduced the concept of "Pharmaceutical care", which they defined as: "a patient-centered practice in which the practitioner assumes responsibility for a patient's drug-related needs and is held accountable for this commitment" (Cipolle et al., 2004, p. 2). Cipolle et al. underlined that this enactment of responsibility should occur in cooperation with the patients' other healthcare providers.

In their paper reporting from an Islandic setting, Blöndal et al. (2017) described how GPs who had asked CPs clinical questions experienced that the CPs had no interest in answering these types of questions or were unwilling to take clinical responsibility. This is in line with our findings in Paper I, where the CPs were found to position themselves as not having the right or duty to take responsibility for the patients' outcomes. Our findings from the Norwegian setting showed that the CPs positioned themselves as clinically competent to contribute to solving patients' medicine-related problems, perceived themselves as "the last line of defence", and were mostly enthusiastic towards taking more responsibility for patients' medicine use. However, while a few CPs were clear about taking full responsibility for their professional judgement, many still struggled with this and assigned the main responsibility for patient outcomes and safety to the GPs. This was mainly attributed to external factors, such as a lack of information and authority, preventing them from taking an active responsible position in patient care (Paper II). Both in the

international and the Norwegian setting, the CPs were positioned through both interactive and reflexive positioning as somewhat dependent on the GPs allowing them a clinical opinion (Papers I-III).

These findings are supported by previous research that has described how CPs perceive themselves as dependent upon others, and particularly the GPs, in order to enhance their roles, have a clinical opinion and take responsibility for patients' medication use (Frankel & Austin, 2013; Svensberg et al., 2015). Svensberg et al. (2015) explored Norwegian pharmacists' motivation and perceived responsibility regarding role development and involvement in patient-centred care, and found that circumstances external to the pharmacists themselves seemed to hamper the pharmacists' perceived ability to be active and take full responsibility in their role development. Svensberg et al. described how some pharmacists questioned their place in patient care, based on physicians' attitudes.

It has been suggested that CPs in general lack professional confidence and are reluctant to take responsibility for their clinical decisions, and that this may be for social, educational, experiential and personal reasons (Frankel & Austin, 2013; Rosenthal et al., 2010). Our findings suggest that if GPs are to perceive CPs as useful collaborators, a reluctance among CPs towards taking clinical responsibility constitutes an important barrier. We found that the Norwegian GPs were unsure about which formal responsibilities the CPs had, and hence expressed uncertainty about whether it would have any consequences for a CP if they were to give incorrect clinical advice that the GP chose to follow (Papers II+III).

Despite the GPs' final responsibility for the clinical decisions they make on behalf of their patients, Norwegian CPs still have independent formal responsibility for the clinical advice they give to GPs and patients (Helsepersonelloven, 2001, Section 4). Our findings suggest that the CPs cannot wait for "approval" from the GPs to take on a more active position, but should instead claim a position for themselves where they use their broad knowledge about medicines to provide clinical advice for which they could be held accountable. Our findings further indicate that a

proactive approach from the CPs that is primarily directed towards the GPs would be most acceptable to the GPs, and therefore perhaps most beneficial in order to support collaboration (Papers II+III). However, previous research has identified that patients may also greatly benefit from, and indeed may need, a proactive pharmacist who provides information, strengthens the patients' motivation for correct use of medications, and uncovers drug-related problems that the GPs have not had the time or the inclination to address (Blenkinsopp et al., 2000; Bremer et al., 2022; Tarn et al., 2012). Hence, CPs have to balance the two considerations – advocating for the patient, yet still ensuring that they do not undermine the GPs' relationship with their patients.

5.2.3 Power differentials and medical dominance

Power differentials between CPs and GPs and the presence of medical dominance is a prominent finding across all of the papers presented in this thesis, including the papers reporting from the Norwegian context, although the Norwegian employment and work sector is recognised as being relatively egalitarian (Skarpenes & Sakslind, 2010). In Papers II-III, both CPs' and GPs' reflexive and interactive positioning showed the presence of medical dominance. Hierarchies and medical dominance have previously been described as barriers to interprofessional collaboration within the healthcare sector (McNeil et al., 2013), and to CP-GP collaboration (Bollen et al., 2018). Luetsch and Scuderi (2020) have described how CPs experience medical dominance exercised by physicians, and suggest that this might be the "elephant in the room" when it comes to CP-GP interprofessional interaction. They conclude that medical dominance may affect the CPs' job satisfaction, role effectiveness and their ability to solve problems. Medical dominance may also cause CPs to feel trepidation about approaching physicians in the future.

A related finding is reported by Bradley et al. (2018) in their description of what they have called the "general practitioner-pharmacist game". This "game" encompasses a set of unwritten rules that apply to the interaction between pharmacists and GPs. Key rules of the game include pharmacists contemplating their words whenever they contact a GP, to avoid blaming the GP and to "save the GP's

face". It also involves pharmacists contacting GPs as seldom as possible, and only when it is deemed absolutely necessary, to avoid bothering the GPs. Although Bradley et al.'s findings were based on empirical data from 2010-2011, many of the same aspects were found in our analyses of the data from the focus groups with Norwegian CPs and GPs from 2019, where the CPs positioned GPs as "busy", and described GPs' time as valuable and limited (Paper III). These findings are underpinned by the findings in Paper I that CPs would hesitate to contact GPs due to previous negative experiences, and tried not to "step on the GPs' toes". If medical dominance causes CPs to refrain from contacting GPs, even in situations where it is deemed necessary, this represents a threat to patient safety. It is also an obvious barrier to collaboration between CPs and GPs.

Some aspects of medical dominance, such as the GPs positioning themselves at the ones in charge, and questioning CPs' competence or agenda, may be related to the GPs feeling "threatened" by the CPs, and hence protecting their professional boundaries (Papers I+III). An expansion of CPs' roles into areas traditionally dominated by medicine, such as vaccination (Czech et al., 2020), screening for various diseases (Kjome et al., 2017) and extensive counselling of patients (Reebye et al., 2002) may be perceived as a threat to the medical profession. The issue of "territoriality" has previously been identified as an important factor affecting interprofessional working relationships between pharmacists and physicians in primary care (Reebye et al., 2002).

However, power differentials and hierarchies can also be found *within* the medical profession (Whelan et al., 2021), which suggests that medical dominance is not only related to issues of territoriality or a perceived superiority of the medical profession over other professions, but also to issues of responsibility and trust. Physicians have final responsibility and legal accountability for the clinical decisions they make on behalf of their patients, even when these decisions are made on the basis of advice from other healthcare personnel (McNeil et al., 2013). This means that they need to be sure that the professionals with whom they collaborate are competent and trustworthy.

Trust has previously been identified as one of the two core determinants of CP-GP collaboration (Bardet et al., 2015). In a study investigating physicians' and pharmacists' cognitive models of trust, the authors conclude that for physicians, trust must be earned on the basis of competence and performance (Gregory & Austin, 2016). In Paper III, we found that the Norwegian GPs positioned themselves as "autonomous, responsible, and in charge". One aspect of this position was that GPs have the final responsibility for their patients, and that they therefore wish to oversee all decisions concerning the patients' medical treatment.

Edelenbos and Klijn (2007) have defined three elements as central to the development of trust, namely vulnerability, risk and expectations. This definition is helpful in understanding the issue of trust between GPs and CPs. Since GPs hold legal responsibility for their patients, they take a risk on behalf of both themselves and their patients, and hence make themselves vulnerable by trusting and following CPs' advice concerning a clinical decision. If the decision turns out to be wrong, the GP will be held responsible. To ensure trust, it is therefore essential that the GPs have positive expectations of the CPs' competence, as well as their intention to make clinical decisions that are to the benefit of both the patients and the GPs.

Our findings show that this positive expectation is lacking for many GPs. In Paper I, we found that GPs mistrusted both the CPs' agenda and their clinical competence, based on their positioning of CPs as "shopkeepers". The GPs also positioned the CPs as those with the most to gain from a potential collaboration and saw less benefit for themselves and the patients. Likewise, the GPs in the Norwegian setting had fairly low expectations of the CPs. The GPs were unsure about what kind of knowledge pharmacists had and what their formal responsibilities were. They also positioned the CPs as "non-clinicians", lacking clinical skills. Although they valued the CPs as a "safety net" for double-checking prescriptions and spotting errors, this service was still not something they relied on, since they instead positioned themselves as having sole responsibility for the patients' medication use (Papers II+III).

5.2.4 Positioning theory and the power of coinciding storylines

The use of positioning theory (Harré & Langenhove, 1999) has allowed us to "go into dialogue" with our data and identify the CPs' and GPs' positioning of their professions in general, as well as in relation to each other. This has revealed nuances in the descriptions of how the professions view themselves, each other, and their collaborative relationship. The use of positioning theory has also offered new insight by allowing for an identification of areas of agreement and disagreement in the GPs' and CPs' narratives about themselves, each other, and their interprofessional relationship. By analysing the data with a focus on the two professions' different points of view, we could identify various interactive and reflexive positions and their subsequent storylines. We could then identify how positions and storylines coincide and contradict between the two professions.

A particularly relevant concept in this regard is the concept of *intergroup positioning* (Tan & Moghaddam, 1999). This concept deals with intergroup relations, where the concept of positioning refers to the discursive production of "selves" not as individuals, but as members of groups. Within positioning theory, the dynamic aspects of intergroup relations, as well as the differences in power between groups, are emphasised as important aspects. In relation to this, positioning theory discusses how intergroup conflict might develop, as well as how intergroup relations might be improved. One important factor put forward as giving rise to intergroup conflict is when the storylines adopted by the different groups are incompatible with each other (Tan & Moghaddam, 1999, p. 187). Hence, in order to ease such conflict, the groups need to agree on mutually acceptable storylines (Louis, 2008, p. 30). One way in which old, incompatible storylines could be replaced with new, more compatible storylines, is through the introduction of superordinate goals, which can be defined as "goals of high appeal value for both groups, which cannot be ignored by the groups in question, but whose attainment is beyond the resources and efforts of any group alone" (Sherif, 1961, p. 202; Tan & Moghaddam, 1999, p. 193). This creates a possibility of introducing a storyline in which the groups work together to achieve these common goals. Positioning theory argues that the dynamic nature of intergroup relations implies that there is constantly room to introduce new positions and

storylines, and that the stability or change in an intergroup relation of unequal power depends on whether any certain storylines are being accepted or rejected (Tan & Moghaddam, 1999, p. 193). The aforementioned aspects of intergroup relations were useful in interpreting our findings. We have identified divergent positions and storylines, which show areas of potential conflict, as well as coinciding positions and storylines, which show areas of agreement and potential for collaboration.

The importance of coinciding storylines and a common superordinate goal is illustrated by our findings in Paper I, where the CPs and GPs who told stories about successful collaboration were found to have coinciding storylines, which concerned a mutual interest in collaborating and a shared motivation to improve patient care. These professionals agreed on their goals and purpose. In comparison, the CPs and GPs who told stories about limited collaboration were found to have differing and partly incompatible storylines about their collaborative relationship.

Our analyses of the data from the focus groups with Norwegian CPs and GPs (Papers II+III) showed that there were both commonalities and differences in how the two professions positioned CPs and GPs. We identified several contradictory positions and storylines between the CPs and the GPs, where the main discrepancy revolved around CPs' roles, competencies, responsibilities and autonomy, with the GPs assigning fewer active positions to the CPs compared to the CPs themselves (Papers II+III). This contradictory positioning of the CPs represents a threat to the collaboration between the two professions, as incompatible storylines give rise to intergroup conflict.

On the other hand, we also identified a coinciding storyline of interdependency between CPs and GPs (Papers II+III). The fact that this storyline seems to be mutually accepted by the two professions is in itself promising with regard to collaboration. It reduces the potential for conflict between the groups, and makes the positions embedded in the storyline more viable. Also, the concept of interdependency is in itself identified as one of two core determinants for CP-GP collaboration (Bardet et al., 2015), which makes the power of this storyline even

stronger. Interdependency between CPs and GPs was also a main finding in a recent study from New Zealand, investigating how GPs framed their working relationships with pharmacists (Addison & Taylor, 2023). The study highlights the interdependence that GPs identified with CPs, as well as the GPs' positive attitude towards collaborating with CPs, and describes how the GPs viewed and used CPs' medicine expertise as a key source of information, and framed CPs as a critical "safety net". The positioning of CPs as a "safety net" corresponds with our findings in Paper II, where the GPs positioned the CPs as "a useful checkpoint", expressing that the pharmacists' double-checking of their prescriptions and performance of quality control gave them a sense of security. The identified storyline of interdependence stands in contrast to the storyline of medical dominance, and represents a "window of opportunity" for CP-GP collaboration in the Norwegian context, despite the presence of power differentials (Paper III).

6. Conclusions

The first aim of this thesis was to investigate how the CPs and GPs positioned themselves and each other. We conclude that there are both commonalities and differences in the way the CPs and GPs positioned themselves and how they were positioned by the other profession. The CPs' reflexive positioning as "outsiders" coincided with the GPs' positioning of CPs as "unknown". The GPs' reflexive positioning as "autonomous, responsible, and in charge" coincided with the CPs' positioning of GPs as "skilled, busy and at the top of the hierarchy". These latter positions again stood in contrast to the position the GPs assigned themselves as "not infallible", and the position assigned to them by the CPs as having to "be looked after and controlled". These positions were further supported by the GPs' positioning of the CPs as "a useful checkpoint", and the CPs' positioning of themselves as "a last line of defence".

The second aim of this thesis was to identify interpersonal barriers to and facilitators of a CP-GP collaborative relationship. We conclude that the positions identified encompass room for collaboration, as well as areas where changes are needed to achieve more successful collaboration. Our findings suggest that the main interpersonal barriers towards CP-GP collaboration lie in the positions that illuminate GPs' lack of awareness of CPs, as well as the positions showing power differentials due to medical dominance. Thus, potential facilitators of CP-GP collaboration are a proactive approach by the CPs towards the GPs, and the CPs taking more responsibility for their clinical advice.

Our findings illuminate how CPs and GPs who told stories about successful collaboration had coinciding storylines about a mutual interest in collaborating and a shared motivation to improve patient care. We identified a coinciding storyline of interdependency between CPs and GPs, which represents a "window of opportunity" for CP-GP collaboration. However, our findings also identified differing and partly incompatible storylines about CPs' and GPs' collaborative relationship and a

discrepancy between the CPs' and GPs' storylines revolving around CPs' roles, competences, responsibilities and autonomy, with the GPs assigning fewer active positions to the CPs compared to the CPs' reflexive positioning of themselves. Such differing storylines represent a challenge to collaboration.

This thesis consequently suggests that creating possibilities for the professions to build shared storylines is important to facilitate collaboration.

7. Implications for practice, education and research

In order for CPs and GPs to establish shared storylines about their collaborative relationship, and improve their collaboration, the findings presented in this thesis suggest that the following elements are of importance:

- To increase the two professions' knowledge of each other, and particularly the GPs' knowledge of CPs and CPs' expertise.
- To increase the CPs' proactivity towards the GPs, as well as their confidence in making recommendations to the GPs and taking responsibility for their recommendations.

Increasing CPs' and GPs' knowledge of each other

Practising CPs and GPs could increase their knowledge of each other through shared meetings or evening courses, or by CPs paying visits to the local GP practices. CPs could also offer services to the local GP practices, such as reviews of GPs' medication stocks, medication reviews for individual patients, or information to GPs about medication-related topics. However, while improving the professionals' knowledge of each other, and hence their collaboration, would benefit both professionals and patients, financing still remains a barrier. In the absence of public funding, it is not easy to define who should be responsible for the aforementioned incentives, either practically or financially.

A more achievable way of increasing the professions' knowledge of each other is by introducing interprofessionalism into their basic education. This has the potential to integrate collaborative skills into the individual professional identity formation of pharmacy and medical students (Oandasan & Reeves, 2005). In Norway, a regulation was introduced in 2017 stating joint learning outcomes for all education programmes within healthcare and social care. One of the learning outcomes in this regulation is that the student must be capable of interacting at an interdisciplinary, interprofessional and intersectoral level, and also capable of initiating such

interaction (*Forskrift om felles rammeplan for helse- og sosialfagutdanninger,* 2017, Section 2).

WHO defines interprofessional education (IPE) as occurring "when two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes" (World Health Organization, 2010). It is important to emphasize that IPE is not the same as placing students from different professions together in the same room to have lectures together (Freeman et al., 2010; Reeves & Summerfield Mann, 2003). Interprofessional learning (IPL) requires effectively facilitated interaction between students in multiprofessional groups (Freeman et al., 2010). An example of an IPE programme that takes such an approach is the programme at the Centre for Interprofessional Work-Place Learning (TVEPS) at the University of Bergen (University of Bergen, 2023). The centre is a collaboration between the University of Bergen, the Western Norway University of Applied Sciences and Bergen Municipality. In their IPE programme, final-year healthcare and social care students are trained in clinical workplace teamwork in primary care settings, where the students work in multidisciplinary teams with feedback from an IPE facilitator and the primary care staff. Participation in the TVEPS programme became mandatory for all healthcare and social care students in Bergen from the autumn of 2020. Integrating similar programmes in all pharmacy and medical education institutions would facilitate knowledge of each other among future generations of CPs and GPs.

Increasing CPs' confidence, sense of responsibility and proactivity

Educational institutions are also significant arenas for the strengthening of pharmacy students' professional confidence and sense of responsibility, and hence future proactivity towards GPs. Traditionally, pharmacy education has been dominated by the basic sciences, giving pharmacy students little opportunity to practice skills like risk assessment and handling uncertainty (Bradley et al., 2021). Training future pharmacists in 21st century skills such as creativity, collaboration, communication and critical thinking may help prepare them to adopt a more proactive approach towards GPs (Stauffer, 2021). Introducing a focus on professional identity formation

and professional engagement into the pharmacy curricula might influence how future pharmacists perceived themselves and their profession, and contribute to enhanced professional confidence. This in turn would affect how pharmacists present and conduct themselves towards GPs (Aronson & Janke, 2015; Janke et al., 2021).

For practising CPs, the pharmacy chains could play an important role in strengthening the pharmacists' professional identity and confidence by implementing a greater focus on pharmaceutical skills and clinical issues within the community pharmacies, as opposed to the prevailing commercial focus (Risøy et al., 2021). Providing CPs with more opportunities for professional development, such as postgraduate education, might in turn lead to an increase in the CPs' confidence to provide concrete clinical advice and take responsibility for this advice. Political guidelines are also important, and the public funding of the pharmacy services "Medisinstart" (Helsedirektoratet, 2023) and inhalation guidance (Apotekforeningen, 2023), which acknowledge the CPs' role as healthcare personnel with a proactive role towards the patients, is a step towards strengthening CPs' professional role.

Future research

The findings of this thesis suggest a need for future research on how pharmacy education programmes and curriculum development can enhance pharmacists' professional confidence.

Future research projects should also investigate whether GPs who have more knowledge about CPs and their competences assign positions to the CPs and themselves which better promote collaboration. One possible research project might include CPs and GPs who have participated in interprofessional education (IPE) programmes, and identify these professionals' reflexive and interactive positioning to investigate whether they have more coinciding positions and storylines, and better aligned role perceptions, compared to the professionals included in the studies presented in this thesis. It could also be interesting to look for aspects of medical dominance in their reflexive and interactive positions, and explore whether these aspects are present to the same extent as in the studies presented in this thesis, or whether they are less prominent. Another possible research project could include practising GPs and CPs, and be designed as an intervention study whereby GPs and

CPs are exposed to each other through joint evening courses. It could be investigated whether the reflexive and interactive positioning of these professionals changed from before to after the intervention, or whether their positioning after the intervention promoted collaboration more than the positioning presented in this thesis. Such research could be an important step in better understanding how to improve CP-GP collaboration and thereby patient care.

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Papers I - III

&PROFESSIONS PROFESSIONALISM

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Positioning Each Other: A Metasynthesis of Pharmacist-Physician Collaboration

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Abstract

Interprofessional collaboration between different professions within health care is essential to optimize patient outcomes. Community pharmacists (CPs) and general practitioners (GPs) are two professions who are encouraged to increase their collaboration. In this metasynthesis we use a meta-ethnographic approach to examine the interpersonal aspects of this collaboration, as perceived by the professionals themselves. The metasynthesis firstly suggests that CPs and GPs have differing storylines about the cooperation between them. Secondly, CPs seem to position their profession in relation to the GPs, whereas GPs do not rely on the CPs to define their professional position. A successful collaboration between the two professions requires the CPs to reposition themselves through adopting a proactive approach towards the GPs. This proactive approach should comprise the delivery of specific clinical advice, as well as taking responsibility for this advice. In this way, they can build a more coinciding storyline of the joint agenda of improved patient care.

Keywords

Interprofessional collaboration, community pharmacists, general practitioners, meta-ethnography, positioning theory

Introduction

Medication errors constitutes a substantial burden to patients, leading to unnecessary and avoidable illness and injury (World Health Organization (WHO), 2016). Medication errors also have great economic consequences, with an associated cost of nearly one percent of the total global health expenditure (WHO, 2017). The WHO states that one factor which may influence medication errors is poor communication between health care professionals (WHO, 2016), and advocates interprofessional education (IPE) and interprofessional collaborative practice, as this can improve patient safety and patient outcomes, and reduce health costs (WHO, 2010).

Already in 1998, a joint statement from the International Pharmaceutical Federation and the World Medical Association underscored the importance of the working relationship between pharmacists and physicians, and its consequences for patients, concluding that the patient will be best served when pharmacists and physicians collaborate (WHO, 1998). Collaboration between pharmacists and physicians in primary care is shown to improve patient outcomes and reduce health costs (Hwang, Gums & Gums, 2017). Despite this, collaboration is limited. Research has identified a variety of factors influencing the collaboration between pharmacists and physicians (Bardet, Vo, Bedouch & Allenet, 2015; Bollen, Harrison, Aslani & Haastregt, 2018; Doucette, Nevins & McDonough, 2005). However, there is no agreement on how to classify these factors, thus different classification systems and models exist (Bardet et al., 2015). One of the most widely used models is "The collaborative working relationship model" (CWR) (McDonough & Doucette, 2001). In this model the influential factors are classified as individual characteristics, contextual characteristics and exchange characteristics. Exchange characteristics describes the personal interactions between pharmacists and physicians, and these elements are found to be especially important influential drivers of collaboration (Doucette et al., 2005; Zillich, McDonough, Carter & Doucette, 2004). The importance of the exchange characteristics is supported by a meta-model by Bardet et al. (2015), which concludes that trust and interdependence are the two core elements of collaboration between pharmacists and physicians. While the importance of interpersonal factors is underscored in the above-mentioned articles, these factors are rarely addressed exclusively and in depth.

Our aim is to address this limitation by exclusively exploring the interpersonal aspects of the collaboration between community pharmacists (CPs)[1] and general practitioners (GPs) through performing a metasynthesis. The aim of a metasynthesis is to systematically interpret findings from previous qualitative research with the purpose of developing new explanations and fresh insights (Walsh & Downe, 2005). In our metasynthesis, we will use positioning theory (Harré & Langenhove, 1999b) as a theoretical framework to bring forward novel interpretations and insights.

Theoretical framework

Positioning theory focuses on interpersonal interactions and the attribution of positions among interactants. It can be applied to understand the interactions between people both at an individual level and at a group level, were people serve as group representatives (Harré & Langenhove, 1999a). The term "intergroup positioning" involves both the positioning of oneself or others at an individual level based upon group membership, and the positioning of oneself or others at a group level. To distinguish oneself and one´s group from others, one uses linguistic devices such as "us" and "them", or specific group names (Tan & Moghaddam, 1999), in our study CPs and GPs. A central element in positioning theory is the mutually determining triad consisting of speech acts, positions and storylines. A speech act is the act of making an utterance, and in our study the speech act is understood as the utterance about collaboration between CPs and GPs that the participants gave in the original research this metasynthesis draws on. A position comprises certain personal attributes, rights, duties and responsibilities, which are negotiable and the result of a dynamic relation between the participants in a social episode. A storyline is the conversational history according to which a social episode evolves and positions arise (Harré & Langenhove, 1999b). When people participate in a social episode, they co-construct a storyline where each participant is given by others or claim for themselves, a position. Positioning can in other words be either interactive, which means that people position each other, or reflexive, which means that one positions oneself. In either case, positioning is not necessarily intentional (Davies & Harré, 1999). In our metasynthesis, this theoretical framework offered a lens through which to study the CPs´ and GPs´ perceptions of their collaboration, with a focus on how they positioned themselves and one another.

Method

Research design

Metasyntheses can be done in different ways, and we chose to use the method of meta-ethnography (Noblit & Hare, 1988) based on its systematic and stepwise procedure, consisting of seven steps (Box 1). To clarify the contents of each of the seven steps, we used the interpretations of Atkins et al. (2008).

Box 1

The seven steps of meta-ethnography (in bold) (Noblit & Hare 1988) as applied in our study informed by the interpretations of Atkins et al. (2008). The steps are a description of the research process, yet they should not be seen as isolated steps or a linear process, but rather as an iterative process where some of the steps were performed simultaneously.

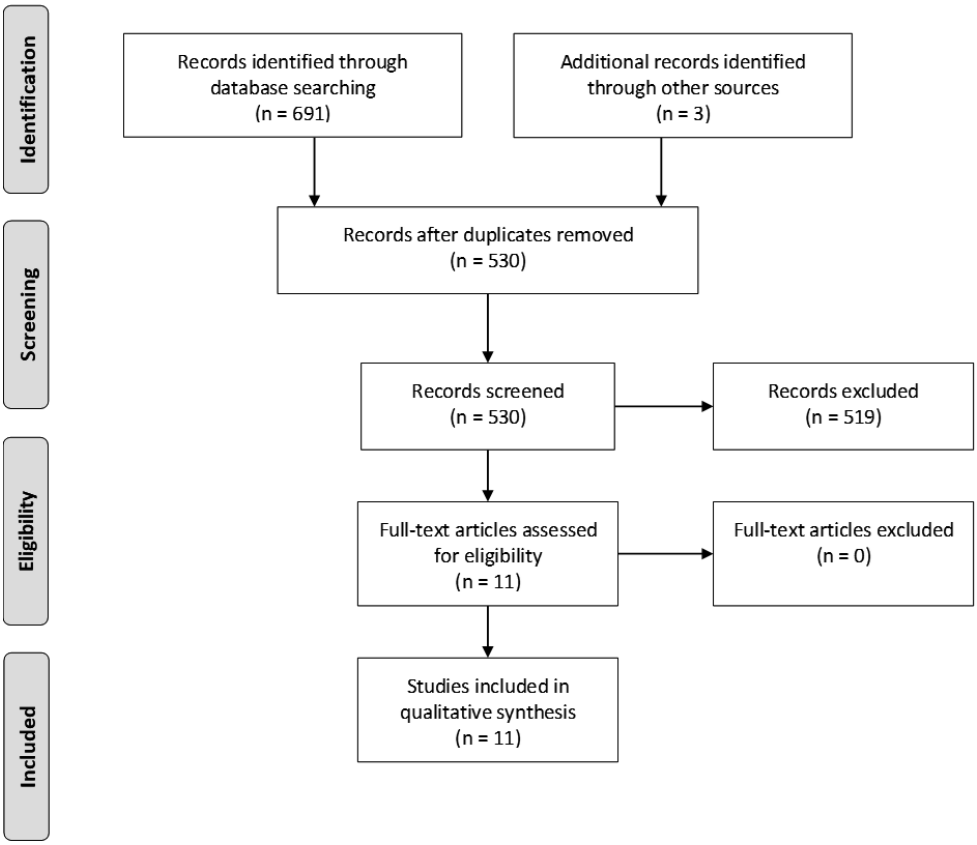
1. **Getting started:** Determining a research question that could be informed by qualitative research.
2. **Deciding what is relevant to the initial interest:** Deciding which primary studies to include in the synthesis. This involves defining the focus of the synthesis (deciding how broad or narrow the scope of the synthesis should be), locating relevant studies (developing a search strategy, choosing databases and performing the search) and selecting studies for inclusion (deciding on inclusion -and exclusion criteria, screening and quality appraising the studies).
3. **Reading the studies:** Repeated reading of the studies to get as familiar as possible with the contents and details of the studies. Extracting emerging themes and concepts, as well as study characteristics, such as context, methods and type of participants.
4. **Determining how the studies are related:** Making a grid of key themes and concepts in each of the primary studies. Juxtaposing them and deciding how they are related. Making an initial assumption about the relationship between the studies regarding if they relate reciprocally (similar findings) or refutationally (conflicting findings) or both, and if they build a line of argument (explore different aspects that together can create a new interpretation).
5. **Translating the studies into one another** (in our study reciprocally): Comparing the themes and concepts in one primary study with the next, and the synthesis of these two studies with the next and so on.
6. **Synthesizing translations:** Creating a third-order interpretation/line-of-argument synthesis.
7. **Expressing the synthesis:** Reporting the outcomes of the synthesis in a form that is accessible to the intended audience, for example other researchers or health care professionals.

To ensure transparency, we reported our meta-ethnography in accordance with the recommendations in the eMERGe reporting guidance (France et al., 2019), to the extent that this guide was relevant to our exploratory study.

Data collection

Based on our study purpose, we made a search strategy with the aim of identifying qualitative studies about the collaboration between CPs and GPs which also elucidated interpersonal aspects of collaboration. Preparation of the search strategy, selection of bibliographic databases and the systematic database search was done in collaboration with an experienced academic librarian from within the medical field. We searched the electronic databases Embase, Medline, PsycInfo, ISI Web of Science and SweMed+, using the search strategy presented in Appendix 1. In addition, we performed citation snowballing and additional free searching using search words such as pharmacist, general practitioner and interprofessional collaboration. The outcome of our search is presented in Figure 1.

Figure 1
PRISMA Flow diagram (Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA group, 2009)



Our primary studies (Table 1) comprised empirical data from 397 individuals from seven countries.

Table 1
Characteristics of the included primary studies

Study	Country	Data collection	Sample	Aim
Bradley, Ashcroft & Noyce (2012)	England	In-depth semi-structured interviews	31 CPs 27 GPs	To present a new model of collaboration derived from interviews with GPs and CPs involved in service provision that required some form of collaboration
Dey, De Vries & Bosnic-Anticevich (2011)	Australia	Semi-structured interviews	18 CPs 7 GPs	To gain deeper understanding of the expectations, experiences and perceptions of Australian GPs and CPs around collaboration in chronic illness (asthma) management in the primary care setting
Gregory & Austin (2016)	Canada	Semi-structured telephone interviews	11 pharmacists 8 family physicians	To characterize the cognitive model of trust that exists between pharmacists and family physicians working in

Study	Country	Data collection	Sample	Aim
				collaborative primary care settings
Löfler et al. (2017)	Germany	In-depth narrative interviews and focus groups	10 CPs 15 GPs	Investigating CPs´ and GPs´ views on barriers to interprofessional collaboration in the German health care system
Paulino et al. (2010)	Portugal	Semi-structured interviews and focus groups	31 CPs 6 pharmacy leaders 2 medical leaders 12 physicians (mix of GPs and hospital physicians) 21 patients	To explore the opinions and experiences of a range of stakeholders on interprofessional working relationships between CPs and physicians
Rathbone, Mansoor, Krass, Hamrosi & Aslani (2016)	Australia	Focus groups	23 CPs 22 GPs	To propose a model of interprofessional collaboration between CPs and GPs within the context of identifying and improving medication non-

Study	Country	Data collection	Sample	Aim
				adherence in primary care
Rieck (2014)	Australia	Semi-structured interviews	22 CPs 22 GPs	To explore the perceptions and attitudes of CPs and GPs regarding the CP-GP relationship and its impact on CP-GP collaboration in chronic disease management in primary healthcare
Rubio-Valera et al. (2012)	Spain	Semi-structured interviews	19 CPs 18 GPs	To identify and analyze factors affecting GP-CP collaboration
Snyder et al. (2010)	USA	Semi-structured interviews	5 CPs 5 physicians	To describe the professional exchanges that occurred between CPs and physicians engaged in successful collaborative working relationships

Study	Country	Data collection	Sample	Aim
Van, Mitchell & Krass (2011)	Australia	Semi-structured interviews, face-to-face and telephone	15 CPs 15 GPs	To investigate the nature and extent of interactions between GPs and CPs and the factors that influence these interactions in the context of professional pharmacy services
Weissenborn, Haefeli, Peters-Klimm & Seidling (2017)	Germany	In-depth semi-structured interviews and focus groups	19 CPs 13 GPs	To assess CPs´ and GPs´ perceptions of interprofessional communication with regard to content and methods of communication as a basis to subsequently develop best-practice recommendations for information exchange

CP: community pharmacist, GP: general practitioner

Searching for qualitative studies can be challenging since qualitative research is not always indexed correctly in electronic databases, and the terms used in the titles are sometimes not a direct reflection of the topic (Evans, 2002). Despite our attempt to identify all relevant studies, we are aware of the possibility that additional studies suitable for inclusion in our synthesis may exist. However, the selection of studies was sufficient for our purposes, as it has provided an overview of significant research in the field. Also, while including more

studies into our synthesis might add additional findings, a large number of included studies is not a goal in itself in metasyntheses, as one can easily lose track and end up with a superficial analysis (Campbell et al., 2011).

The first and last author screened all titles and abstracts independently, and potentially relevant articles were discussed, read in full text and appraised according to the following inclusion criteria: empirical qualitative studies, written in English or a Scandinavian language, published between 2010 and 2017, about collaboration between community pharmacists and physicians in primary care, and containing findings regarding interpersonal aspects of collaboration. Studies concerning pharmacists integrated in a primary health care team or located in a physician´s practice were excluded. This due to the likelihood of these settings influencing the interpersonal relationships in different ways than the typical primary care setting, where CPs and GPs most often work physically isolated from each other. The eleven studies which met our inclusion criteria were quality appraised by the first and last author, using the Critical Appraisal Skills Programme (CASP) checklist (2017) for qualitative research.

Data analysis and synthesis

The primary studies were read thoroughly and independently in full text by the first and last author to get an overview and identify key themes and concepts in each study as well as study characteristics such as context, types of participants and study design. Data was extracted by the first author in collaboration with the last author. Only findings regarding interpersonal aspects of collaboration were extracted, while findings regarding factors such as practice setting, infrastructure, systems of reimbursement, data sharing, time constraints and practitioner demographics were excluded, as these factors were outside of our scope. We made the decision to extract findings only from the results section of the articles. This choice was discussed thoroughly in advance, and decided upon due to the fact that the discussion section often contains information based upon other sources than the study findings, for example research done by others, and authors´ personal opinions. We attempted to only extract concepts developed by authors of the primary studies, but participant quotes may also have been extracted due to a low level of interpretation in many of the primary studies, and hence difficulties in distinguishing participant quotes from author interpretations. An exception is the participants quotes that are presented in our results section, these were selected deliberately to serve as illustrations to our findings. The further analysis of the studies will be described in the following and is illustrated in Appendix 2.

Inspired by Atkins et al. (2008), we first used thematic analysis to identify thematic categories and organize the key themes and concepts in each study into these categories.

During this step of the analysis, we tried to preserve the terminology used by the original authors. To get an overview across all studies and to determine how the studies were related, we structured the eleven studies and the identified 13 thematic categories into a grid. Appendix 3 shows an excerpt from the grid for one of the thematic categories, labeled "shopkeepers".

Data within the different categories then formed the basis for the translation of the primary studies into one another. We found that the focus and themes of the included primary studies were sufficiently similar for a reciprocal translation[2] to be made. The original categories were revised and reconfigured as the analysis progressed through discussions on how they were related; some were merged, some were split up and new categories and subcategories were agreed upon. The concepts of the different primary studies were compared by translating the data within each category from one study into the next, and then translating this synthesis into the next study and so on, while at the same time keeping our minds open for emerging new categories. We also attempted to examine if different contexts, such as country, had an influence on the findings. Our translations were finally synthesized into three main categories.

Based on our translations, we then created our third order interpretations by applying positioning theory to identify different positions that the CPs and GPs assigned to themselves and each other through reflexive and interactive positioning. These positions further served as a basis to identify the CPs´ and GPs´ main storylines. Throughout the analytical process, findings and categories were discussed with the second author. The outcome of this metasynthesis is presented as a line-of-argument synthesis in the form of storylines in the results section, and further elaborated on through the framework of positioning theory in the discussion section.

Results

We found coherence across the different countries in the way pharmacists and physicians perceived their challenges related to collaboration. All of the studies used individual interviews or focus groups or a combination of these, and included both pharmacists and physicians, with a small predominance of pharmacists. One study also included pharmacy and medical leaders and patients. The studies varied regarding the level of collaboration that existed between the participating pharmacists and physicians. Some were involved in a highly collaborative working relationship, but the majority were not.

There were two sets of stories that asserted themselves in the results of the primary studies included in our synthesis: stories about limited collaboration and stories about successful collaboration. In the following, we will present the dominant storylines and positions in these two sets of stories.

The stories of limited collaboration

Most of the CP and GP participants described the collaboration between the two professions as limited. However, the two professions described the lack of collaboration using different storylines. Within their respective storylines, the CPs and GPs also took on different positions, and positioned the other profession in different ways.

The CPs´ storyline

This storyline was concerned with a desire to deliver improved patient care through engaging in interprofessional collaboration with the GPs, while experiencing the GPs as not very forthcoming. Most of the CPs in the included primary studies seemed to hold the opinion that both the GPs, the patients and they themselves would benefit from an interprofessional collaboration (Dey, de Vries & Bosnic-Anticevich, 2011; Paulino et al., 2010). However, there were many accounts of them feeling disrespected, underappreciated and underevaluated by the GPs (Dey et al., 2011; Gregory & Austin, 2016; Löffler et al., 2017; Paulino et al., 2010; Rieck, 2014; Snyder et al., 2010; Van, Mitchell & Krass, 2011; Weissenborn, Haefeli, Peters-Klimm & Seidling, 2017):

> I trust them to do their job—it´s frustrating, okay, sometimes it feels almost like patronizing?—when you know they don´t trust your recommendation just because they think, well, you´re [air quotes] "just a pharmacist". (CP) (Gregory & Austin, 2016, p. 241)

Some CPs specified that they had knowledge that was additional and complementary to that of the GPs (Gregory & Austin, 2016; Paulino et al., 2010; Snyder et al., 2010). They generally positioned themselves as clinically competent to contribute in patient care by solving drug related problems (Bradley, Ashcroft & Noyce, 2012; Gregory & Austin, 2016; Löffler et al., 2017; Paulino et al., 2010; Snyder et al., 2010), and wished for stronger support from the GPs (Bradley et al., 2012; Dey et al., 2011; Gregory & Austin, 2016; Löffler et al., 2017; Weissenborn et al., 2017). Yet, they ultimately positioned the GPs as the ones responsible for the patients´ outcome, and seemed reluctant to take on this level of responsibility themselves (Bradley et al., 2012; Paulino et al., 2010):

> I´d rather not have the responsibility on my head… I´d like [the GPs] to be the ones who explain, initiate the whole service, and I can just be there as an addition… (CP) (Bradley et al., 2012, p. 43)

The CPs positioned themselves as dependent on the GPs to be able to contribute, and hereby placed themselves in the position as the "noble" profession who were looking to improve the treatment of patients through interprofessional collaboration, while being rejected by the GPs (Snyder et al., 2010). Nevertheless, there was one account of CPs

positioning themselves as passive, recognizing that they were also partly to blame for the limited collaboration with the GPs (Paulino et al., 2010).

The CPs generally positioned the GPs as highly competent, respected and trustworthy (Gregory & Austin, 2016; Rieck, 2014):

> Well, of course, why wouldn´t you trust them? They´re doctors, right, so they´ve proven themselves already. (CP) (Gregory & Austin, 2016, p. 240)

Gregory and Austin (2016) point out that the GPs do not need to *earn* the CPs´ trust; it is conferred on them implicitly through their status and title as GPs. This implicit trust was also evident in three of the other primary articles (Bradley et al., 2012; Snyder et al., 2010; Van et al., 2011), and also shone through a large proportion of the material, where the focus was on what could improve the GPs´ opinions about the CPs, and not the other way around (Rathbone, Mansoor, Krass, Hamrosi & Aslani, 2016; Rieck, 2014; Rubio-Valera et al., 2012). Nevertheless, the GPs were not only featured in positive terms. They were also positioned by the CPs as territorial and as a profession with a "bad attitude" who do not want to engage in interprofessional collaboration for the best of patients (Dey et al., 2011; Gregory & Austin, 2016; Löffler et al., 2017; Paulino et al., 2010; Rieck, 2014; Snyder et al., 2010):

> You can´t tell a doctor anything, he can´t learn from anybody, he´s supposed to know it all… (CP) (Dey et al., 2011, p. 25)

Some CPs positioned the GPs as having a monopoly on the patient, and were conscious of not impeaching on their professional territory. There was a perception among several CPs that the GPs sometimes perceived what was intended as helpful requests or advice from the CPs´ side as criticism, and the CPs therefore tried not to step on the GPs´ toes (Dey et al., 2011; Löffler et al., 2017; Paulino et al., 2010; Weissenborn et al., 2017). Some CPs lacked the confidence to confer their clinical opinions. Previous negative response from the GPs could result in the CPs avoiding contacting the GP to make an intervention, although they considered the intervention important (Dey et al., 2011; Löffler et al., 2017; Paulino et al., 2010):

> Sometimes we actually fear calling there, because we are scared of being snapped at. You know, we´ve sometimes had such bad experiences... (CP) (Löffler et al., 2017, p. 3)

The GPs´ storyline

We found the main GPs´ storyline to be that they delivered good enough patient care on their own. The included primary articles presented several accounts of the GPs showing

limited interest and awareness of the CPs´ competencies and possible contributions to a collaboration (Dey et al., 2011; Löffler et al., 2017; Paulino et al., 2010; Rieck, 2014):

> (…) I dare say that the majority of physicians doesn´t have the slightest idea of what pharmaceutical care is. (Physician) (Paulino et al., 2010, p. 597)

Some GPs presented a negative attitude towards CPs who were calling them on the phone with what they perceived as unnecessary inquiries, and it was underlined that CPs were of little help when calling to point out mistakes without offering a specific proposal for a solution (Löffler et al., 2017). The GPs seemed to hold the opinion that the CPs would be the ones with most to gain from a collaboration, while they themselves and the patients would have less to gain (Dey et al., 2011; Paulino et al., 2010; Snyder et al., 2010), hence they were less motivated to collaborate. Some perceived the CPs to be useful collaborators in the way that they could perform less important tasks to free the GPs´ time (Bradley et al., 2012; Paulino et al., 2010):

> I would much prefer that I spent my time dealing with complex stuff than spend my day doing unnecessary things that somebody else can do. (GP) (Bradley et al., 2012, p. 43)

The GPs generally positioned themselves as more competent than the CPs (Bradley et al., 2012; Dey et al., 2011; Gregory & Austin, 2016; Löffler et al., 2017; Paulino et al., 2010; Rieck, 2014; Rubio-Valera et al., 2012; Weissenborn et al., 2017). In agreement with the CPs, the GPs also positioned themselves as the ones with the most responsibility (Dey et al., 2011; Gregory & Austin, 2016; Löffler et al., 2017; Snyder et al., 2010).

Some GPs defined their limited relationship with the CPs as a good one, seemingly not perceiving their limited collaboration as a problem in the same way that the CPs did (Dey et al., 2011; Löffler et al., 2017). At the same time, some positioned the CPs as encroachers into the GPs´ domain (Bradley et al., 2012; Löffler et al., 2017; Paulino et al., 2010):

> Pharmacists aren´t doctors. I think every monkey should stay on his own branch. (Physician) (Paulino et al., 2010, p. 599)

In relation to this, the CPs were positioned by the GPs as unreliable and incompetent until the opposite had been proven. For the CPs to gain the GPs´ trust, they had to gradually *earn* it over time through being proactive and proving their clinical skills in a way that had a positive impact on patients´ outcomes (Gregory & Austin, 2016; Snyder et al., 2010; Van et al., 2011):

> You just know, after a while. You can tell if they´re competent, committed, someone you want to rely on. You have to see them in action. (Family physician) (Gregory & Austin, 2016, p. 239)

The GPs´ positioning of CPs as "shopkeepers" or businesspeople was found in several of the included articles (Bradley et al., 2012; Löffler et al., 2017; Paulino et al., 2010; Rieck, 2014; Rubio-Valera et al., 2012; Van et al., 2011). This position had two aspects: the first was that the GPs mistrusted the CPs´ agenda because of the commercial aspect of community pharmacy. The CPs were seen as businesspeople, and the GPs were therefore uncertain about whether the CPs´ agenda was patients´ benefit or their own economic benefit (Bradley et al., 2012; Löffler et al., 2017; Paulino et al., 2010; Rubio-Valera et al., 2012; Van et al., 2011). The other aspect was the GPs´ lack of trust and confidence in CPs´ clinical abilities (Bradley et al., 2012; Gregory & Austin, 2016; Löffler et al., 2017; Paulino et al., 2010; Rieck, 2014; Weissenborn et al., 2017). This could be based both on previous bad experiences with individual CPs (Gregory & Austin, 2016), and on prejudice towards the profession as a whole, with the GPs viewing the CPs as "merely shopkeepers" with low clinical competence (Paulino et al., 2010; Rieck, 2014; Van et al., 2011). Because the CPs do not make their profit from the delivery of clinical services, but rather from the products they sell, they were not regarded as being part of the healthcare system on an equal level as other healthcare personnel (Rieck, 2014):

> Well, most of the allied health professionals, physios… I don´t know that much about how they actually work, but my understanding is that most of the money is made from their professional advice. So, it´s actually themselves and the quality of their advice they give, they make money for. Where pharmacists are different, they make their money from what they actually sell. (GP) (Rieck, 2014, p. 442-443)

The stories of successful collaboration

Some CPs and GPs described various degrees of successful collaboration. In these stories the two groups of professionals had a more coinciding storyline which was about a mutual interest in collaborating and a shared motivation in improved patient care, while they still held different positions:

> … we both have different jobs but we both have an end goal and that is to take care of the patient … (Physician) (Snyder et al., 2010, p. 316)

> I think it´s easier working with some doctors because we share the same belief in what we´re here for… we´re both part of the total solution for patients… we´re meant to work together. (CP) (Van et al., 2011, p. 369)

Both CPs and GPs acknowledged a “personal relationship” or “knowing each other”, preferably through face-to-face interactions, as important for successful collaboration (Bradley et al., 2012; Dey et al., 2011; Gregory & Austin, 2016; Löffler et al., 2017; Paulino et al., 2010; Rathbone et al., 2016; Rieck, 2014; Rubio-Valera et al., 2012; Snyder et al., 2010; Van et al., 2011; Weissenborn et al., 2017). Many participants from both professions perceived this as being essential primarily in that it made the GPs aware of the CPs´ competencies, services and possible contributions (Bradley et al., 2012; Paulino et al., 2010; Rieck, 2014; Snyder et al., 2010). But it was also highlighted as an opportunity for the two professions to align role perceptions, clinical goals and perspectives (Paulino et al., 2010; Rathbone et al., 2016; Rubio-Valera et al., 2012; Van et al., 2011; Weissenborn et al., 2017). This could help reduce stigmatized views towards the other professional in both directions (Paulino et al., 2010; Rubio-Valera et al., 2012). In this, both the GPs and the CPs themselves positioned the CPs as the proactive part. This in the sense that the CPs primarily were the ones who had to take the initiative to establish a personal relationship, prove their clinical competence, make their possible contribution to a collaboration familiar, and initiate and maintain a collaboration with the GPs. This proactive approach by the CPs was described in several of the included studies as being important to foster a successful collaboration (Paulino et al., 2010; Rieck, 2014; Snyder et al., 2010; Van et al., 2011):

> … the pharmacist has to play an active role, because the novelty comes from him, not from the physician. (CP) (Paulino et al., 2010, p. 600)

When the GPs had gotten to know the CPs, they more often positioned them as trustworthy, clinically competent, helpful and supportive (Bradley et al., 2012; Gregory & Austin, 2016; Rieck, 2014):

> If the right patient gets to the right person, they do a better job perhaps than the doctors… more thorough for certain things … certainly advice regarding drug interactions, it could be argued that the pharmacist does that better … we´re all fairly modern in our approach, we can live with it. (GP) (Bradley et al., 2012, p. 43)

Nevertheless, this did not necessarily apply to the profession in general, but could be limited to the individual CPs whom they had an interpersonal relationship with (Paulino et al., 2010).

Discussion

Differences in organization within the primary care systems of the seven countries included in our metasynthesis could potentially be problematic in terms of transferability (Malterud, 2001), but despite large geographical distances, the systems in which the pharmacists and physicians worked were found similar enough for the studies to be synthesized. We found

coherence across the countries in the way pharmacists and physicians perceived their challenges related to collaboration, something that strengthens the transferability of our findings. Our use of the eMERGe reporting guidance (France et al., 2019) should increase transparency, and the use of CASP (Critical Appraisal Skills Programme, 2017) should ensure that the included studies are of acceptable quality. A limitation of the included studies was that they were generally more descriptive than interpretative. Yet, they served the purpose of our study, and the use of positioning theory (Harré & Langenhove, 1999b) made it possible for us to extend the level of interpretations to present what we perceive as new insights. This theoretical framework has influenced our results by affecting which findings we have placed emphasis on. Using other relevant theoretical frameworks, such as sociological theories of the professions (Traulsen & Bissel, 2004), most likely would have led to different findings, as a result of a different focus. Nevertheless, positioning theory was chosen after a thorough discussion of different possible theories, as this approach allowed us to go into a dialogue with our data and identify how GPs and CPs described and positioned their professions in general, as well as in relation to each other.

The first and last authors are both pharmacists, and this influenced how findings were understood and interpreted. These two authors could for instance easily recognise and identify with the CPs´ description and positioning of their profession as well as the way the relationship between CPs and GPs was described. Their knowledge *of* the pharmaceutical profession as well as international research *on* this profession, ensured the interpretations of the CPs´ positions and storylines were relevant and reasonable. Although originally trained as a pharmacist, the last author received her research training in a research group consisting of primarily GPs. Her academic knowledge of GPs´ training and work, enabled us to make relevant and reasonable interpretations also of the GPs´ positions and storylines. The second author, who is a highly competent qualitative researcher from the field of pedagogy, had no insider experience or knowledge, neither of the medical nor of the pharmaceutical profession. To avoid that interpretations developed into more biased opinions, the second author therefore used her “outsider” position continuously in the discussions about the findings and how these best could be interpreted and communicated. In these interdisciplinary discussions, preconceptions were discussed openly. Preliminary findings were also presented and discussed at national and international research conferences. Together, these measures ensured reflexivity (Malterud, 2001) as well as a nuanced perspective in our metasynthesis.

We found that the CPs tended to interpret their own position as a profession in relation to the profession of the GPs, whereas the GPs did not seem to rely on the CPs to define their position. The GPs were generally not concerned with how the CPs perceived them, whereas the CPs emphasized the GPs´ perceptions about them and about their rights and duties as a

profession. The CPs were positioned both through interactive and reflexive positioning as somewhat dependent on the GPs´ approval to be allowed to have a clinical opinion. There seemed to be an overall acceptance by the CPs of this position, instead of them trying to renegotiate their position to a more autonomous one. Other authors have touched upon similar findings, for example Svensberg, Kälvemark Sporrong, Håkonsen & Toverud (2015, p. 261) found that: "Some pharmacists questioned their place in patient care, based on doctors´ attitudes". In an exploratory study about the lack of responsibility and confidence among pharmacists, it was mentioned that the hierarchical structure of the medical system made some pharmacists feel that: "asking permission" was necessary to be able to make clinical decisions (Frankel & Austin, 2013, p. 157), and Rosenthal, Austin & Tsuyuki (2010, p. 39) states that: "Pharmacists seem to be overly concerned with the perception that other health care workers and other professions have of them". Notions about a hierarchical structure of the medical system and a territorial behavior of the GPs were also found in our metasynthesis. The CPs were found to promote what they saw as their unique and complimenting competencies, while the GPs were found to highlight their superiority over the CPs. This strategy was similarly observed in a study by Lee, Lessem & Moghaddam (2008), with participants competing for internships. Lower-status participants were seen to focus on their unique qualities instead of directly comparing themselves to the others, whereas higher-status participants directly compared themselves with a focus on being "better". The strategy of the CPs, focusing on their complimenting skills, may be born from a wish to maintain inter-group harmony (Harré, Moghaddam, Cairnie, Rothbart & Sabat, 2009). By not positioning one´s group as being in competition with another group, but rather differentiating oneself from the others through the search for vacant spaces, one can avoid conflict (Harré et al., 2009). The GPs, being a higher-status group compared to the CPs, did not seem to have the same fear of inter-group conflict.

The CPs were found to position themselves as not having the right or duty to take responsibility for the patients´ outcomes. There may be several reasons for this, such as their perception that the GPs are the ones responsible for the patients and, as mentioned above, the CPs´ wish to avoid conflict with the GPs. Another aspect is that they may lack the confidence, which for some CPs could be legitimate due to an actual lack of clinical competence, while it for others could be due to an underestimation of their own skills in combination with a great respect for the GPs and their opinions. However, we found that the GPs only trust CPs on the basis of regular clinical recommendations that improves patients´ outcomes. This finding implies that the CPs´ defensive demeanor, perhaps based on their perceived lack of responsibility, could bring them into a negative circle by contributing to the GPs´ mistrust in them. This is in line with conclusions from Blöndal, Jonsson, Kälvemark Sporrong & Almarsdóttir (2017). In their study they interviewed 20 GPs on Iceland, and found that to improve communication between GPs and CPs, the CPs need

to demonstrate their potential, use their expertise and dare to take responsibility for patient care.

In the stories about the CPs and GPs involved in good working relationships, there was not a lot of focus on the GPs´ positions. In addition to the importance of knowing each other personally and having aligned perspectives and goals, the main focus was on the changed positions of the CPs from passive to active, unfamiliar to familiar, questionable to trustworthy, incompetent to competent, encroaching to supportive and subordinate to equitable. The most important change in the position of the GPs was that they moved from being unaware to being aware of the CPs´ competencies and possible contributions to a collaboration. This suggests that the CPs are the ones who have to make the changes in order to enhance the collaboration with the GPs.

Renegotiating new positions—introducing new storylines

The acceptance or rejection of prevailing storylines determines whether a relation between two groups with different power remains stable or changes. Storylines and positions are not written in stone and can be altered through the introduction of new positions and storylines. Thus, group positions can be renegotiated, and a subordinate group can introduce new storylines for itself, thereby creating social changes in the established intergroup relation. In this way, group positions that used to stand in opposition to each other ("us vs them") can be realigned into complementary positions ("we must work together") (Tan & Moghaddam, 1999). One way of introducing such new storylines could be through IPE, where students from different professions within health care, among them medical and pharmacy students, come together to learn with, from and about each other with the goal of facilitating effective future collaboration and hence improved quality of care (Bondevik, Holst, Haugland, Baerheim & Raaheim, 2015). IPE is currently promoted as the way forward to increase interprofessional collaboration within health care on a global level (WHO, 2010; Frenk et al., 2010).

The dominant storyline among the CPs and GPs involved in successful collaboration was found to be that they had a shared motivation and a common goal: improved patient care. The CPs who were not involved in successful collaboration also held the view that a collaboration with the GPs would benefit the patients, whereas the GPs not involved in successful collaboration had doubts about the possible patient benefits. These GPs were unsure of the CPs´ skills and motives based on the perception of them as shopkeepers. If the CPs could manage to change this storyline to one about them both working for the best of patients, this would increase the probability of a successful collaboration between them. However, to be able to do this, the CPs must first change their own storyline about themselves. The CPs should try to replace the old storyline about their group being less

responsible with a new storyline, where they use their unique competencies to improve patient care by making clear recommendations, have the confidence to stand up for these recommendations, and thus also share responsibility with the GPs for the outcomes, positive or negative. When the GPs experience the CPs making clear recommendations that improve patient outcomes, our findings suggest that their trust in the CPs increases. This would be an important step in the right direction towards working for a better collaboration and the common goal of improved patient care.

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Appendix 1

Search strategies in electronic databases

Database: Embase (Ovid) <1974 to 2016 Dec 05>
Searched 6. Dec.2016

1 pharmacy/ (73968)

2 pharmacist/ (65541)

3 (pharmacist* or pharmacy or pharmacies or drug store*).ti,ab,kw. (104064)

4 1 or 2 or 3 (143294)

5 general practitioner/ (89958)

6 exp primary health care/ (148865)

7 general practice/ (81848)

8 private practice/ (16044)

9 (((family or general or primary care or private) adj2 (doctor* or physician* or practitioner* or practice)) or GP*).ti,ab,kw. (325261)

10 5 or 6 or 7 or 8 or 9 (490616)

11 trust/ (10443)

12 (trust* or mistrust* or distrust* or reliance).ti,ab,kw. (72015)

13 11 or 12 (75712)

14 4 and 10 and 13 (465)

Comment from librarian: Primary medical care is secondary to primary health care

Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>
Searched 6. Dec.2016

1 Pharmacy/ (12998)

2 Pharmacists/ (13735)

3 (pharmacist* or pharmacy or pharmacies or drug store*).ti,ab,kw. (55978)

4 1 or 2 or 3 (66260)

5 general practitioners/ or physicians, family/ or physicians, primary care/ (24250)

6 Primary Health Care/ (69460)

7 exp General Practice/ (73996)

8 Private Practice/ (8202)

9 (((family or general or primary care or private) adj2 (doctor* or physician* or practitioner* or practice)) or GP*).ti,ab,kw. (280705)

10 5 or 6 or 7 or 8 or 9 (371065)

11 Trust/ (8009)

12 (trust* or mistrust* or distrust* or reliance).ti,ab,kw. (58449)

13 11 or 12 (61708)

14 4 and 10 and 13 (114)

Comment from librarian: Family practice is secondary to General practice.

Database: PsycINFO (Ovid) <1806 to Nov Week 4 2016>
Searched 6. Dec.2016

1 pharmacy/ or pharmacists/ (1665)

2 (pharmacist* or pharmacy or pharmacies or drug store*).tw. (5376)

3 1 or 2 (5398)

4 general practitioners/ or family medicine/ or family physicians/ (7719)

5 primary health care/ (15069)

6 private practice/ (1296)

7 (((family or general or primary care or private) adj2 (doctor* or physician* or practitioner* or practice)) or GP*).tw. (39337)

8 4 or 5 or 6 or 7 (51011)

9 "trust (social behavior)"/ (8163)

10 (trust* or mistrust* or distrust* or reliance).tw. (50268)

11 9 or 10 (50415)

12 3 and 8 and 11 (24)

Comment from librarian: Family medicine is used as a keyword in this database on articles about general practitioners (GPs). This is strange, since GPs is also a keyword.

Svemed+ (Karolinska Institutet)
Searched: 6. Dec. 2016

2 noexp:"Pharmacy" 142

3 noexp:"Pharmacy" AND noexp:"pharmacists" 11

4 pharmacist* OR pharmacy OR pharmacies OR "drug store*" OR farmasøyt* OR farmaceut* OR apotek* 2685

5 #2 OR #3 OR #4 2685

8 noexp:"General Practitioners" 230

10 noexp:"Physicians, Primary Care" 8

11 noexp:"Physicians, Family" 1286

12 noexp:"primary health care" 2001

13 exp:"General Practice" 3167

14 noexp:"Private Practice" 256

15 ((family OR general OR primary care OR private) AND (doctor* OR physician* OR practitioner* OR practice)) OR GP* 5304

16 allmennlege* OR allmänläkar* OR "praktiserende læge*" OR fastlege* 279

17 #8 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 6640

18 exp:"trust" 128

19 trust* OR mistrust* OR distrust* OR reliance OR tillit* OR "stole på" OR förtroende OR tillid 260

20 #18 OR #19 260

21 #5 AND #17 AND #20 1

Web of Science (Thomson & Reuters)
Indexes=SCI-EXPANDED, SSCI, A&HCI Timespan=All years
Searched: 6. Dec. 2016

1 46,370 TOPIC: (pharmacist* or pharmacy or pharmacies or "drug store*")

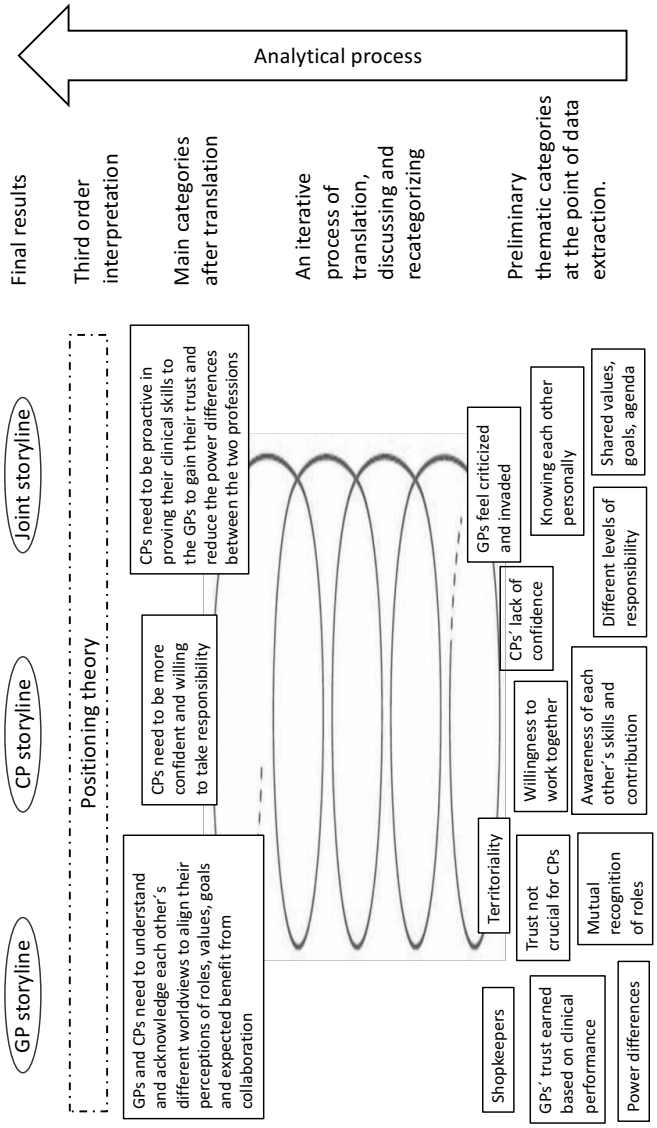
2 147,776 TOPIC: (((family or general or "primary care" or private) NEAR/2 (doctor* or physician* or practitioner* or practice)) or GP)

3 97,927 TOPIC: (trust* or mistrust* or distrust* or reliance)

4 87 : #3 AND #2 AND #1

Appendix 2

Figure describing the analysis process from preliminary thematic categories to final results



Appendix 3

Excerpt from the analysis grid

Theme	**Bradley et al. 2012**	**Dey et al. 2011**	**Gregory & Austin 2016**	**Löffler et al. 2017**	**Paulino et al. 2010**	**Rath-bone et al. 2016**	**Rieck 2014**	**Rubio-Valera et al. 2012**	**Sny-der et al. 2010**	**Van et al. 2011**	**Weisse n-born et al. 2017**	Our translation
Shop-keepers	Distrust was associated with the commerci-al aspect of pharmacy	X	X	GPs percei v-ed that pharma-cists would have their own agenda by making money of patients	CPs as business-people. Mistrust about whether the aim of pharmacy services was patient benefit or economic benefit for the pharmacy	X	GPs perceived CPs to be at a lower level of the primary health care hierarchy than other health care professional-s due to the retail component of pharmacy (remuneration through the sale of products)	Negative opinion due to perception of a "private-public" conflict. A belief that CPs, through selling medications, had a greater interest in non-rational use of medicines	X	Lack of trust in CPs´ agenda (whether they acted in the best interest of the patients) and clinical ability due to perception of CPs as "shop-keepers"	X	GPs mistrust CPs due to retail aspect of pharmacy

GP: general practitioner, CP: community pharmacist

[1] We use the terms “CP” and “GP” in this article to refer to community pharmacists and physicians working in primary care, although the terms used in the primary articles upon which this metasynthesis is based varies (e.g. pharmacists, family physicians, physicians). One of the primary articles includes a mix of general practitioners and hospital physicians, but for pragmatic reasons we chose to use the term GP throughout our article since the vast majority of physicians included in the primary studies were general practitioners.

[2] Defined by Atkins et al. (2008) as: “the comparison of themes across papers and an attempt to “match” themes from one paper with themes from another, ensuring that a key theme captures similar themes from different papers”.

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Original Research

Complementing or conflicting? How pharmacists and physicians position the community pharmacist

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Abstract

Background: Interprofessional collaboration between pharmacists and physicians in primary care has been linked to improved patient outcomes. How professionals position themselves and each other can shed light upon their relationship, and positioning theory can be used as a tool to better understand intergroup relations.

Objectives: 1) To identify how community pharmacists position themselves, and how they are positioned by general practitioners. 2) To assess how well these positions correspond, how the positions align with a proactive position for the pharmacists, and discuss how the positions could potentially impact collaboration.

Methods: In this qualitative study, data were collected through six focus group interviews held between June and October 2019, three with pharmacists and three with physicians. The focus group interviews were conducted using a semi-structured interview guide. Data were audio recorded, transcribed verbatim, and analyzed using the Systematic text condensation method. Positioning theory was used as a theoretical framework to identify the positions assigned to community pharmacists by the pharmacists themselves and by the physicians.

Results: Twelve pharmacists and ten physicians participated. The pharmacists positioned themselves as the "last line of defense", "bridge-builders", "outsiders" – with responsibility, but with a lack of information and authority – and "practical problem solvers". The physicians positioned pharmacists as "a useful checkpoint", "non-clinicians" and "unknown".

Conclusions: The study revealed both commonalities and disagreements in how community pharmacists position themselves and are positioned by general practitioners. Few of the positions assigned to pharmacists by the physicians support an active role for the pharmacists, while the pharmacists´ positioning of themselves is more diverse. The physicians´ positioning of pharmacists as an unknown group represents a major challenge for collaboration. Increasing the two professions´ knowledge of each other may help produce new positions that are more coordinated, and thus more supportive towards collaboration.

Keywords

Interprofessional Relations; Intersectoral Collaboration; Primary Health Care; Physicians; Pharmacists; Attitude of Health Personnel; Social Behavior; Focus Groups; Qualitative Research; Norway

INTRODUCTION

Interprofessional collaboration is now globally being recognized as a significant measure to improve health care.[1] The World Health Organization (WHO) states that interprofessional collaborative practices strengthens health systems and improves health outcomes, and declares it as an innovative strategy that will play an important role in mitigating the global health workforce crisis.[2] Still, there are many hindrances on the way to successful collaborations.

Community pharmacists and general practitioners (GPs) are two professional groups whose collaboration is becoming increasingly important in a time when more and more complex patients are being treated in primary care.[3] Collaboration between these two groups is shown to benefit patients.[4,5] Previous research has investigated the collaboration between community pharmacists and GPs, with a focus on identifying and understanding the factors influencing this collaboration.[3,6] Though a significant portion of the published papers are built on qualitative studies, the majority of these are descriptive studies, and few have incorporated a more advanced level of theory informed interpretation.[7-9]

We have identified research from multiple countries, including the United States (US), the United Kingdom (UK), several European countries, Australia and the Middle East, but to our knowledge, no studies focusing on the collaboration between community pharmacists and GPs have been conducted in a Scandinavian setting. This represents a gap in the research base, as differences in the organization of the health care systems within different countries, as well as different cultures, may affect collaborative practice. We conducted this study with pharmacists and physicians in Norway. Here, community pharmacists and GPs most often work isolated from each other. Both community pharmacies and most GPs´ practices are privately owned. Pharmacies are mostly owned by pharmacy chains, while GPs´ practices are most often organized either as a sole proprietorship or as corporations.

Theoretical framework

Positioning theory is focused on how people position themselves and each other in storylines through their speech acts. Positioning can be either reflexive, meaning the positioning of oneself, or interactive, meaning the

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positioning of each other.[10] The three concepts "speech act", "position" and "storyline" are central in positioning theory. A speech act is the act of making an utterance. A position comprises a cluster of personal attributes, rights, duties and obligations that limits the possible social acts that are available to a person or group as so positioned. A position is negotiable and the result of a dynamic relation between the participants in a social episode. The participants in a social episode co-construct a storyline where each participant claim for themselves or is given by others, a position. A storyline can be defined as the conversational history according to which a social episode evolves and positions arise.[10]

Positioning does not only happen at an individual level, but also at group level, where a person´s history includes his or her story both as an isolated individual and as a member of various groups. Positioning theory can therefore be used as a tool to better understand social phenomena such as intergroup relations.[11] The stories we tell about ourselves and "the others" may show where there are divergences that may impact collaboration. How we position ourselves and each other can shed light upon the relationship.

In a previous metasynthesis, where we explored the interpersonal aspects of the collaboration between community pharmacists and GPs through the use of positioning theory, we found positioning theory to be a useful lens through which to understand the dynamics between these two professional groups.[12] In the metasynthesis, which included primary studies from seven countries, we found that in the less common, successful collaborations, the pharmacists had taken a more proactive role, and thus claimed a new position for themselves. We concluded that if the collaboration was to move forward, the pharmacist needed to be the more active part.

In this study our aim is to investigate this finding further within a Scandinavian context through focusing on the positioning of community pharmacists, by the community pharmacists themselves and by GPs. We will address the following research questions:

- How do community pharmacists position themselves?
- How do GPs position community pharmacists?

This will be done using positioning theory to identify the different reflexive positions described by the pharmacists, and the interactive positions described by the GPs. We will discuss how well the positions assigned to pharmacists by themselves and by the GPs correspond, how the positions align with a proactive position for the pharmacists, and how the positions could potentially impact the collaboration between the two professions, seen in the light of previous knowledge about the collaboration between pharmacists and physicians.

METHODS

In this qualitative study we performed focus group interviews with Norwegian pharmacists and physicians.

Recruitment of participants and data collection

We recruited pharmacists and physicians in one of the major cities of Norway and the surrounding areas. We used purposive sampling, as the inclusion criteria for participants were experience from community pharmacy (pharmacists) or general practice (physicians). There were no exclusion criteria. Most pharmacists were recruited through advertisement on a closed Facebook group for pharmacists in Norway. The advertisement was also shared openly in other social media channels, and colleagues and friends were asked to spread the word. The physicians were recruited through contacting small continuing education networks of general practitioners. Four networks were invited to participate in the study, and two of these accepted the invitation. One of the networks was big enough to be divided into two focus groups. A gift card of 400 NOK (37 EUR) was promised in the invitations to all participants as a compensation for their time and travel expenses.

Data were collected through six focus group interviews held between June and October 2019, three with pharmacists and three with physicians. The meetings were located at the university, and each session lasted for approximately two hours. All authors were involved in carrying out the interviews, either as moderators or secretaries. The group dynamics were good in all focus groups.

We used semi-structured interview guides with open-ended questions (see Online appendix), which were prepared for this study based on the study aim as well as on the results of a previous metasynthesis reviewing international research on the collaboration between community pharmacists and GPs.[12] The group discussions were audio recorded, and transcribed verbatim by the first author.

This study was approved by the Norwegian Centre for Research Data (NSD). All participants gave written informed consent after having received written and oral information about the project. The participants were informed about their right to withdraw from the project at any time, without having to provide any reason.

Analysis

Data from the pharmacists and physicians were analyzed separately using the Systematic text condensation method developed by Malterud.[13] This is a systematic method for thematic cross-case analysis inspired by the analytical procedures in Giorgi's psychological phenomenological analysis. During the analysis we supplemented Malterud´s analytical approach with positioning theory.[10] This allowed us to identify the different reflexive positions described by the pharmacists, and the interactive positions described by the physicians in the interviews.

Systematic text condensation consists of the following four steps: Step 1) Total impression – from chaos to themes: during this initial step, the aim is to get an overview of the data.[13] The first and the last author each read the transcripts independently to get a general impression of the whole. During this first reading we noted down five to eight preliminary themes related to our study aim. We then discussed and negotiated the individually derived preliminary themes to agree on those that should be prioritized for further analysis.

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Step 2) Identifying and sorting meaning units – from themes to codes: in this second step, the focus is on organizing the data through coding the text. The themes from step 1 serve as a basis for the identification and sorting of meaning units into code groups.[13] In this second step of the analysis the first and the last author systematically reviewed half of the transcripts each, line by line, to identify meaning units. A meaning unit is a text fragment; it could be a quote, a sentence or a longer text element, that contains information with relevance to the research question.[13] The identified meaning units were then collaboratively sorted into different code groups. During the coding process we used an iterative approach, going back and forth, reconfiguring the codes and code groups as the analysis progressed. In the process of developing the code groups, positioning theory was used to guide the development of the codes. Some code groups were split, while other code groups were merged. Finally, we had sorted all our meaning units into four code groups for the pharmacists, and three code groups for the physicians.

Step 3) Condensation – from code to meaning: this step is about the systematic abstraction of the meaning units within each of the code groups.[13] One code group at a time, the first and the last author collaboratively sorted the meaning units of the group into two or three subgroups, each subgroup representing a different aspect of the code group. The first author then focused on one subgroup at the time, condensing all the meaning units within each individual subgroup. This process resulted in a text describing the essence of meaning in each subgroup. In this text we tried to conserve the original terminology used by the participants. We still had an iterative and flexible approach. This meant that meaning units that were judged not to fit into the condensate were discussed, and either moved to another more suitable subgroup or code group or – if not suitable anywhere – removed from the analysis.

Step 4) Synthesizing – from condensation to descriptions and concepts: in this last step, we synthesized the contents of the condensates in each of the code groups, developing descriptions and concepts. In this process of constructing the concepts, we applied positioning theory. Each concept thus represented one of the identified positions pharmacists or GPs assigned community pharmacists in the interviews. The descriptions under each concept were written in the form of an analytical text. Selected genuine participant quotes were presented in the descriptions of the different positions to serve as illustrations to our findings, and to preserve the participants voices. In this final analytical step the text was also translated from Norwegian into English. The final interpretations were checked against the transcripts, and discussed among all authors. Table 1 shows an example of how the analysis progressed.

Table 1. An example illustrating the analytical process from step 2-4 leading to an excerpt of the position "They are unknown"

Highlighted and extracted meaning units from the interview transcripts (step 2)	**Subgroup condensates (step 3)**	**Analytical text (excerpt from the position "They are unknown") (step 4)**
"They are strangers to me – pharmacists" "I don´t know much about pharmacists" "….it is a professional group that I know little about. I know little about what they stand for" "It [the pharmacy] is an unknown world, you know" "I don´t know if I know anyone [pharmacists] well enough to be able to say what is typical [for pharmacists]. "Pharmacists are a resource that is not that easy to get hold of, and there are no natural points of collaboration, as far as I know… It is only these occasional phone calls, that´s when we meet" "Our contact is quite minimal. I can probably count on one hand the number of times that I have been contacted on the phone [by a pharmacist]" "They [pharmacists] are much more distant than for example the homecare nurses. The contact we have is maybe once a month, or it might be even less frequent"	*Subgroup* The pharmacy is a somewhat unknown world. And pharmacists are a professional group that I know little about – they are strangers to me. I don´t know any pharmacists well enough to be able to describe what is a typical pharmacist. *Subgroup* Pharmacists are a resource that is not that easy to get hold of, and there are no natural points of collaboration, as far as I know. It is only these occasional phone calls, that´s when we meet. Pharmacists are much more distant than for example the homecare nurses, and our contact is quite minimal.	A common response from the GPs concerning pharmacists is that they have very few opinions about them. The GPs describe having few natural meeting arenas or collaboration opportunities with pharmacists, other than the occasional phone calls. Most of the GPs depict pharmacies as an unknown world, and pharmacists as an occupational group they know little about…

Table 2. Participants' characteristics

Variable	Pharmacists (n =12)	Physicians (n =10)
Gender		
Female	9	4
Male	3	6
Age (years)		
Mean	35	45
Range	25-58	36-66
Work experience (years)		
Mean	8	17
Range	0.6-30	8-38
Level of education		
Bachelor´s degree	0	N/A
Master´s degree	12	N/A
Current workplace		
Community pharmacy	10	N/A
Hospital pharmacy	2	N/A
Experience as GP (years)		
Mean	N/A	11
Range	N/A	1-37
Currently working as a GP		
Yes	N/A	7
No	N/A	3

N/A: not applicable

RESULTS

Twelve pharmacists and ten physicians participated (characteristics presented in Table 2).

All pharmacists had experience working in community pharmacies. The few who currently worked in a hospital pharmacy were instructed to speak on the basis of their previous experience from community pharmacy. The community pharmacies that the pharmacists had their experience from varied in size, location (urban/rural), chain affiliation, and closeness to the nearest GPs´ office. All of the pharmacies were situated at shopping malls. Eight of the pharmacists reported being in contact with physicians approximately zero to five times per week, while four had more frequent contact. They stated that the majority of these physicians were GPs. None reported being in contact with physicians more than ten times per week. Usually the pharmacists initiated the contact.

All physicians had experience working as GPs. The minority who currently worked in other positions were instructed to speak on the basis of their previous experience as GPs. The GP practices that the physicians had their experience from were diverse regarding type and location (urban/rural). The majority of the physicians had their main experience from working in practice communities together with other GPs. All of the physicians, except for one, reported being in contact with pharmacists approximately zero to five times per week, and reported the pharmacists as the ones who usually initiated the contact. One physician reported being in contact with pharmacists between five to twenty times per week, and that he usually was the one who initiated contact.

Pharmacists´ positioning of themselves

Position: We are the last line of defense

The pharmacists position themselves as a final checkpoint before the medications are handed over to patients. The pharmacy is narrated as society´s last line of defense against medication errors. One of the pharmacists said: "We are the last person who can correct any potential errors before the patient uses the medication" (pharmacist 1, group 3). The pharmacists therefore consider their profession unique in the sense that there is zero tolerance for making mistakes. Aware of the seriousness of this responsibility, the pharmacists describe "the typical pharmacist" as dedicated to following rules and doing things by the book and they frequently use words like detail oriented, accurate and perfectionistic.

Despite their understanding that it is important to appear assertive and provide clear and concise answers to patients, and that the use of individual judgement is also necessary to do the job well, the pharmacists acknowledge that they sometimes may be too bound to rules, and admit that they often double-check their conclusions before and after giving advice to patients. In the interviews, many of the pharmacists explicitly reflected over the irony of having solid professional knowledge, yet not being confident enough to avoid double-checking.

Position: We are bridge-builders

The pharmacists position themselves as a link between different types of health personnel. They describe groups of health personnel as living in their own bubbles, each having their unique area of expertise that they focus on. As a contrast, the pharmacists perceive themselves as having a more interdisciplinary education, which enables them to get a fuller picture of the situation. The interview-participants see it as the pharmacist´s job "…to promote trust between the patient and the health care system…" (pharmacist 1, group 3) through building bridges between the different actors.

Most importantly, the pharmacists position themselves as filling gaps in the communication between the patient and the GP. They consider it their task to uncover and try to clarify misunderstandings and mistakes that might arise in the communication between GPs and patients. The pharmacists perceive the GPs as sometimes talking over the patients´ heads, having neither the time nor interest to explain things properly. As the pharmacists emphasize the importance of patients understanding their treatment, knowing why they take their medication and how to take it, they see it as vital to give patients necessary guidance to reassure and motivate them to take their medication as prescribed. They also translate complicated medical terminology and the text on the medicine label into a language that the patient can understand. This strengthening of patient compliance is something the pharmacists clearly feel they can contribute. They thereby support and continue the GP´s work by consolidating the GP´s instructions towards the patient. In sum, the pharmacists feel that they and the GPs complement and complete each other.

Position: We are practical problem solvers

The pharmacists see themselves as someone who solves practical issues, big and small, from major medicine shortages to minor formal mistakes on the prescriptions. The pharmacists experience that the GPs rarely consider such practical issues, and one pharmacist exemplified this in the interview with the following story:

> "There was this GP that frequently prescribed medications that were not marketed in Norway, which often implies long delivery times. Although we informed him that we had good marketed alternatives available, he refused to listen. So, then you stand there with a patient with pneumonia, thinking: great, the medication arrives in three weeks…" (pharmacist 4, group 2)

In this kind of situation, the pharmacists consider it their responsibility to ensure that the patients receive their medications and a proper treatment.

Compared to most other health care personnel, the pharmacists perceive themselves as very accessible to the public. They are often the first point of contact for people, and have the impression that people in general have a high level of trust in pharmacists. This makes them feel a responsibility and a duty to help people with a wide range of issues. They describe how they educate the public about medications and their effect and use, give general health-related advice, and help people with minor ailments and practical issues. Consequently, the pharmacists place themselves as having an important societal role and socioeconomic responsibility, as their services help reserve other health care services for those who really need them. Finally, the good pharmacist is therefore also described as a professional with the capacity to view things from a societal perspective.

Position: We are outsiders – with responsibility, but with a lack of information and authority

The pharmacists describe their responsibility for patients as different from that of the GPs. GPs are responsible for patients over time, while the pharmacists are responsible for their, sometimes brief, interactions with patients at the pharmacy. The pharmacists still feel a sense of general responsibility, especially for the patients who visit their pharmacy on a regular basis. For instance, the pharmacists are very clear that it is the GPs´ job to diagnose patients, but perceive it as their responsibility to assess the choice of medications in relation to the different diagnoses, and to respond if they believe something should be altered.

Yet, the pharmacists consider their responsibility for patients as challenging to follow up, mainly for two reasons. Firstly, pharmacists deal with patients who can drop in at any pharmacy at any given time. Pharmacists do not have access to patients´ clinical background or medical records. They therefore often help patients based on little and incomplete information, often limited to what the patient tells them. This lack of information makes their job difficult.

Secondly, the pharmacists refer to what could be described as a lack of authority, as the Norwegian prescribing legislation underscores that GPs have the final say. One pharmacist explains how this puts pharmacists in frustrating situations:

> "The GP always has the final say. So, you can tell them that something is not correct, but if they do not want to alter it, then there is not much you can do. Of course, you must intervene if you believe the patient could die, but you have to have very strong reasons to withhold the medication." (pharmacist 1, group 1)

Despite this perceived lack of authority, some of the pharmacists do not accept this more passive position, and see it as their responsibility to pursue the problem until it is resolved.

GPs´ positioning of pharmacists

Position: They are a useful checkpoint

The GPs describe a good pharmacist as someone who checks that the patients receive the correct medication with correct dosage and instructions. This includes checking the GPs´ prescriptions for errors. The GPs express that while they rarely make fatal mistakes, this can happen, and knowing that there is a pharmacist double-checking their prescriptions and performing a quality control gives them a sense of security. The GPs all agree that they are grateful when pharmacists notify them about prescription errors, as one GP expresses: "I never think that it is a bad thing that the pharmacists call me, never. I am just very, very happy whenever they do." (GP 2, group 3). Although most GPs perceive pharmacists´ double-check as a safety net, some GPs say that they consider it more of an additional service than something they rely on.

The GPs do not appreciate pharmacists directly consulting the patients without involving them, but underscore that they are very open for all types of discussions and feedback from the pharmacists as long as it is discussed directly with them. The following quote is a typical example of how the GPs explicates the boundaries between themselves and the pharmacists:

> "It is my responsibility. I do not expect anyone else to take part of the blame if something goes wrong. And in that respect, I must say that I feel that I should be the one in charge. So, if the pharmacist advises the patient very differently than what I have decided, I can get a little insulted." (GP 2, group 3)

Position: They are non-clinicians

The GPs describe pharmacists as a prestigious occupation and a profession ¬with a high level of professional knowledge that they respect and trust. Yet, they point to what they believe is an important difference between themselves and pharmacists, namely the pharmacists' lack of clinical knowledge and insight. One GP puts it this way: "I definitely trust pharmacists, and I know that they have a long education, and that their level of knowledge is high, but then there is this factor of the clinical context, and this is where we do not meet." (GP 4, group 2). The lack of clinical insight entails both that the pharmacists do not have the same knowledge about the patient, as the GPs, and that the pharmacists tend to focus on purely pharmacological aspects. Although the GPs acknowledge that it might be difficult for pharmacists to do their job when they only have access to the medication lists, they emphasize that GPs are the ones who know the patients best, and that this is the way it should be. Clinical insight is not something the GPs consider to be part of a pharmacist´s job in the first place.

Some GPs describe the pharmacists as having supplementary knowledge beyond their own in certain areas. Examples of such areas are knowledge about new medications that GPs do not have much experience with yet, and alternatives in cases of medication shortage. Others are knowledge about which medications can be physically mixed, and the correct use of medications in relation to food intake or dosage times. One GP also praises the pharmacists´ skills in making checklists and systems for logistics, describing the pharmacists as very thorough and accurate.

However, the pharmacists are depicted as non-autonomous, as the GPs do not consider pharmacists as having any real responsibilities beyond performing their job correctly, which mostly means delivering what the physician has ordered and dispensing the correct boxes. The pharmacists are further described as being very bound to rules, regulations, systems, and procedures. The GPs describe their collaboration with pharmacists as mainly concerned with practical issues. In contrast to themselves, the GPs perceive the pharmacists as having both a poor ability and possibility to exercise discretion, as their job mainly consists of concrete, technical and practical tasks. For the same reason, some of the GPs state that they do not consider pharmacists to be health care personnel.

Position: They are unknown

A common response from the GPs concerning pharmacists is that they have very few opinions about them. The GPs describe having few natural meeting arenas or collaboration opportunities with pharmacists, other than the occasional phone calls. Most of the GPs depict pharmacies as an unknown world, and pharmacists as an occupational group they know little about, expect little from, and have not really thought much about. The GPs are unsure both about what kind of knowledge the pharmacists have, what their formal responsibilities are, and what their workday consists of, other than performing what the GPs have ordered.

However, one of the GPs describes recently having had a moment of realization after receiving a useful phone call from a pharmacist. She was extremely impressed by the professional knowledge of that pharmacist. After having worked as a GP for many years, thinking about pharmacists mainly as shopkeepers, she is now embarrassed that she has ignored this profession and their competence for so many years. Based on her experience she suggests the following:

> "Maybe the pharmacists should market themselves more towards the GPs, to make it more visible what kind of professional knowledge they actually possess. I think that the wrong image of pharmacists as shopkeepers does not only apply to me, but also to other GPs." (GP 3, group 3)

DISCUSSION

The positions assigned to the pharmacists influence their possibilities to act in various situations, through the attribution of rights, duties and obligations.[14] The positions can tell us something about pharmacists´ scope of action and which norms that apply to them, as perceived by pharmacists themselves and by GPs. When the storylines adopted by different groups are incompatible, this may give rise to group conflicts.[11] Thus, differences in the two professions´ positioning of pharmacists, resulting in different storylines, can reveal possible challenges to their collaboration.

The positioning of the pharmacists in this work reveals that the perceived roles and responsibilities of pharmacists only correspond to a certain degree between the two professions. Another major finding is that the GPs view pharmacists as a group of professionals they know little about. Few of the positions promote a clear active role for the pharmacists.

Disagreement regarding pharmacists´ roles and responsibilities

The two professions both position pharmacists as a final security checkpoint and as practical problem solvers. Yet, there are several differences in the pharmacists´ and GPs´ perceptions of pharmacists´ roles and responsibilities. Some of the disagreements revolve around issues such as the pharmacists´ level of responsibility, their professional autonomy and their place in the counseling of patients.

Differing views about pharmacists´ level of responsibility are found both between the professions, and between professionals within each profession. Overall, the pharmacists perceive their level of responsibility as higher than what the GPs do, and the pharmacists in this study seem eager to take responsibility. Still, the pharmacists perceive different obstacles as hindering them, such as lack of information and lack of authority. Similar findings are reported in previous studies.[15]

Although the GPs and the pharmacists agree that pharmacists lack authority, the pharmacists still position themselves as having professional autonomy, while the GPs position them as non-autonomous. This positioning by the GPs corresponds with previous findings.[12] However, in contrast to these previous findings, where the pharmacists seemed to accept this position, the pharmacists in this study do not accept a position as non-autonomous. Here the pharmacists assign certain rights and duties to themselves that go beyond what the GPs assign to them, something which creates a potential for intergroup conflict. While the pharmacists position themselves as bridge-builders, aiming at supporting the GPs through informing patients about their medications, and seeing this as an important responsibility, the majority of the GPs do not appreciate clinical information given to patients by pharmacists, and prefer all information going through them.

These findings are supported by a quantitative study from the US about physicians' perceptions of communication with, and responsibilities of, pharmacists.[16] Almost 90 percent of the physician respondents were most comfortable with pharmacists' responsibilities of catching prescription errors, while the most common negative experiences with pharmacists involved pharmacists scaring the patient and making inappropriate comments in front of patients. Similarly, a qualitative study from Canada, exploring the collaboration between community

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pharmacists and family physicians, found that physicians appreciated the information they received from pharmacists about their patients' adherence and use of nonprescription medications, but they did not want pharmacists to directly counsel their patients.[17] A more recent study from Germany found that there was general disagreement between the general practitioners in the study about the following statement: "The pharmacist actively addresses patients' medical concerns". The authors propose a possible reason for this to be that physicians believe that addressing medical concerns is outside the scope of a community pharmacist's practice.[18]

This conflicting positioning of pharmacists represents a challenge for the collaboration between the two professions. A successful interprofessional collaboration requires that each party shares an understanding of each other´s roles and responsibilities.[19] An understanding of each other´s roles is also found to be of special importance in the collaboration between pharmacists and physicians, and "role specification" is highlighted as the most influential relationship driver in this specific collaboration.[3,20,21]

The contradicting views between pharmacists and GPs regarding pharmacists´ roles and responsibilities may be partly explained by a lack of insight into each other´s workday. Whereas the pharmacists often lack information about the patients, and which clinical considerations the GPs have made, the GPs may not be aware of the patients´ needs and requests for information when at the pharmacy. A qualitative study by Svensberg *et al*. found that Norwegian community pharmacists experienced that patients often did not remember if the doctor had given them any information about their medications.[22] This may lead to questions that the pharmacists need to answer. Pharmacists also need to make certain decisions and instruct patients directly at times where the GP cannot be reached, but the pharmacists´ limited background information about the patients, and often limited clinical experience, could sometimes lead to advice being given that is not in line with the GP´s recommendations. Different advice could also arise from different priorities between pharmacists and physicians, for example regarding how much risk one is willing to take on behalf of the patient.

Pharmacists: an unknown group

In our study, one of the clearest positions that emerged was that the GPs saw pharmacists as a group of professionals with unknown competencies and responsibilities. This unawareness is a threat to collaboration. While the pharmacists in the interviews often positioned themselves with reference to GPs, the GPs generally had few thoughts about pharmacists, and expressed that they knew little about pharmacists´ tasks, skills and knowledge. This corresponds with findings by Smith *et al*., who investigated American physicians´ expectations of pharmacists, and concluded that physicians do not know what to expect of pharmacists.[23] We also found similar results in our previous meta-synthesis, where increasing GPs´ awareness of pharmacists´ competencies and possible contributions was found to be important for collaboration.[12]

"Knowing each other", both in terms of knowing the individual professional and in terms of having knowledge about the other profession, is one of the factors previously identified as important for collaboration between pharmacists and physicians.[3,24-26] Increased knowledge of each other helps align the perceptions of roles and responsibilities, and builds trust.[24] While clinical pharmacists working in hospitals have the advantage of being in close proximity to, and interacting regularly with, physicians, there are few arenas were GPs and community pharmacists meet. It is therefore even more critical for these groups to have a certain knowledge of each other.

In a recent report on the collaboration between pharmacists and physicians in primary care, ordered by the Norwegian Directorate of Health, several factors are described as important for collaboration.[27] The report highlights two factors as beneficial: personal relations and more formalized collaboration. In Norway, the current situation mostly involves sporadic ad-hoc communication. A possible first step could be that pharmacists employed at community pharmacies were hired to work at a GP´s practice a couple of hours per week to perform specific tasks, such as medication reviews, as has been done in the UK. This would create a physical meeting place were the two groups could get to know each other. A third measure mentioned in the report is interprofessional education (IPE). IPE is defined as "occasions when two or more professions learn with, from and about each other to improve collaboration and the quality of care", and can involve students or practicing professionals.[28] This will mainly affect the future generation of pharmacists and GPs, but could also involve practicing professionals from both professions participating at evening courses or meetings. Young, newly educated pharmacists and GPs could also potentially influence older colleagues to alter their view on collaboration with the other profession.

An intervention study from Croatia, aiming at improving pharmacy and medical students´ and practicing professionals´ attitudes towards collaboration between physicians and pharmacists through participation in an interprofessional workshop, found significantly improved attitudes. Both pharmacists and physicians improved their attitudes, but the physicians, having a less positive attitude to begin with, showed the greatest increase.[29] A study from the US by Kucukarslan *et al*. concludes that physicians' beliefs and attitudes play an important role in their intentions to collaborate with community pharmacists.[30]

Finally, one cannot overlook the importance of establishing good IT solutions, and introducing a system ensuring remuneration for extended pharmacy services.[27]

A proactive position for pharmacists

When we speak about a proactive position for the pharmacists, we see this as including two different aspects: 1) being proactive in embracing new roles and responsibilities, and 2) being proactive towards the GPs to market pharmacists´ competences and possible contributions as collaborators.

While we find that the GPs in this study assign quite passive positions to the pharmacists, as checkers of what others have decided, unknown, and with limited responsibility and

autonomy, our previous research suggests that it might be even more important how the pharmacists position themselves.[12] The pharmacists in this study assign more diverse positions to themselves compared to those assigned by the GPs, from the position as bridge-builders being described as a quite active position with independent counselling of patients, to the position as the last line of defense being described by most pharmacists as a quite passive position of following rules and double-checking what the GPs have decided.

Sometimes the definition of what each position entails varies between the individual pharmacists, such as in their positioning of themselves as outsiders with responsibility but without authority. Here, some pharmacists describe a more active role for themselves than others, taking clear responsibility for patient outcomes. Still, even the pharmacists that describe a more passive role for themselves, leaving more responsibility to the GPs, do not seem content with the position as outsiders, something which implies that all pharmacists wish for a more active role and a change in this position. This finding is supported by a scoping review, examining the attitudes of pharmacists in relation to practice change, which found that pharmacists are generally positive towards extending their professional roles, yet are hindered by factors such as systemic and organizational structures and a lack of mandate from others.[15]

The position as practical problem solvers, although currently not entailing much proactiveness towards the GPs, might be a possible way into more collaboration. Several of the GPs speak about how they appreciate practical help from the pharmacists, such as performing medication reviews or organizing and checking medication storages, and how this has opened their eyes for the competence the pharmacists possess. Thus, pharmacists offering this kind of help more actively to the GPs could be a way to make the GPs more aware of them as pharmacists.

Other measures could be joint evening meetings, pharmacists inviting GPs to visit the pharmacy, or pharmacists visiting GPs´ offices during lunch break to introduce themselves, deliver information about what the pharmacy could offer, or to hold short professional lectures about topics of interest to the GPs.

Strengths and limitations

When assessing qualitative research, relevance, transparency and reflexivity are three relevant criteria.[31]

Transferability is an important aspect of a study´s relevance, and refers to the degree to which the results may be applicable to others than purely the study participants. In our study, we have strengthened the transferability of our findings by adhering to two factors. Firstly, we have ensured a varied and adequate study sample with a heterogeneous group of participants in terms of gender, age, and years of experience. The information power of this sample is adequate to address the aim of our study.[32] Secondly, we have ensured readers the possibility to assess whom and what the findings concern, by a transparent reporting of the study context and participant demographics (see Table 2).[31]

We have further ensured transparency by using the Systematic text condensation approach and by giving a thorough and detailed description of the data collection and analysis.[13] This will allow readers to assess if findings and interpretations are reasonable and in accordance with the material as well as the theoretical and analytical approach.[33]

Reflexivity entails researchers' awareness of how their positions and experiences possibly may affect the study.[31] To ensure a solid material and a sound interpretation of the data, all authors (one educational researcher, one GP and two pharmacists) were involved throughout the research process, from collecting the data to analyzing it and reporting the results.

Implications of findings

An ideal collaboration between pharmacists and GPs entails exploiting the differences between the two professions through a trusting relationship. Our findings show that it is important to increase the GPs´ knowledge about pharmacists in order to foster collaboration. Still, we would suggest a focus on interventions aiming at increasing GPs´ and pharmacists´ knowledge about each other. Increasing the knowledge of each other may help produce new positions and storylines that are more coordinated, and thus more supportive towards collaboration. To increase GPs´ knowledge about pharmacists and their competence will likely increase trust, and have the potential to alter some of the positions assigned by the GPs into new positions that enables and supports a more active role for the pharmacists, with more autonomy. Increased knowledge about how a pharmacist works, and how much information the patients actually expects from the pharmacy, may also change the GPs' perceptions of how much autonomy a pharmacist should have in their meeting with patients.

Increasing pharmacists´ knowledge about GPs will hopefully make them better equipped to recognize how GPs work and what matters to the GPs, and thus to channel their contributions into areas where they are appreciated. It may also help them to be more aware of their clinical limitations, so that they could better identify the situations where they should adjust their counseling of the patients to ensure that they do not undermine the GPs. Appreciation and positive feedback from the GPs may then contribute to alter the pharmacists´ positioning of themselves into more active positions, which will further increase the GPs´ awareness of them and their competence, and foster successful collaboration.

CONCLUSIONS

The study reveals both commonalities and disagreements in how pharmacists position themselves and are positioned by GPs. While few of the positions assigned to pharmacists by the GPs support an active role for the pharmacists, the pharmacists´ positioning of themselves is more diverse, with certain positions aligning with a more active role.

The GPs´ positioning of pharmacists as an unknown group represents a major challenge for collaboration. Increasing the two professions´ knowledge of each other may help

produce new positions and storylines that are more coordinated, and thus more supportive towards collaboration. This may pave the way for a practice where the two professions complement each other in the efforts of promoting patients' health and safety.

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Online Appendix 1. Interview guide for physicians (translated from Norwegian)

Theme	Questions
The GPs	- What would you say characterizes a good GP? - What are typical features of physicians´ professional culture? (Could you characterize "the typical physician"? Are there any unwritten rules or norms that physicians follow?) - As a GP, I assume that one often finds oneself in situations where there is not one single correct answer to a clinical problem. How do you feel about having to make decisions in such gray areas?
The pharmacists	- What would you say characterizes a good pharmacist? - Do you think GPs and pharmacists have the same priorities/consider the same things as important?
Collaboration	- How would you describe your collaboration with pharmacists? - Could you please tell about the last time you had a clinical conversation with a pharmacist, and how the conversation went by? - How would you describe your trust towards pharmacists? - When you are in contact with pharmacists, do you feel that they have trust in you as GPs? - How do you perceive the division of responsibility between GPs and pharmacists? (for example: who do you see as having responsibility for patient compliance, correct dosage, drug information, practical use of the drug, drug interactions, side effects etc?) - If you set aside practical factors, like time shortage and lack of communication platforms, which other factors influence your collaboration (or lack of collaboration) with pharmacists? - How do you perceive the need to better your collaboration with pharmacists? - Who should contribute with what in order to improve collaboration?
Findings from previous study/reactions to these Shopkeepers/commercial aspect of pharmacy	In a previous study we found that many GPs perceived community pharmacists more as shopkeepers than as health care personnel, and were insecure about the pharmacists´ competence as well as their agenda. The pharmacists did not agree with being shopkeepers. - What are your thoughts on this finding? - Why do you think this is so/the case?
Proactive pharmacists	- The GPs are probably the most important collaborators for the pharmacists, outside of their own profession, while the contact with other types of health care personnel is much more infrequent. GPs probably deals a lot more with many different types of health care personnel as well as other collaborators. How do you perceive your collaboration with pharmacists compared to your other collaborators? In our previous study we found that a proactive approach by the pharmacists was important in order to achieve a successful collaboration with GPs. *(a definition of what we mean by proactiveness)* - Do you have any reflections around this finding based on your personal experiences? - Can you tell about an occasion when a pharmacist was proactive towards you? What did she/he do? - In our study we also found that knowing each other was important for collaboration. What are your thoughts regarding this finding?
Communication	In our study we found that some pharmacists were afraid of insulting the GPs whenever they had to contact them regarding prescription errors, and that some GPs felt criticized, since they were only contacted whenever there was something wrong with a prescription. - What are your thoughts about this finding?

Online Appendix 2. Interview guide for pharmacists (translated from Norwegian)

Theme	Questions
The pharmacists	- What do you see as the characteristics of a good pharmacist? - Do you have any thoughts about what differentiates pharmacists from other health care personnel? - What are typical features of pharmacists´ professional culture? (Could you characterize "the typical pharmacist"? Are there any unwritten rules or norms that pharmacists follow?) - Sometimes when working as a pharmacist at the pharmacy you find yourself in a situation where there is no single correct answer to a problem. How do you feel about having to make decisions in such gray areas?
The GPs	- What do you see as the characteristics of a good GP? - Do you see any similarities or differences within the professional cultures of pharmacists and physicians? - Do you think pharmacists and GPs have the same priorities/consider the same things as important?
Collaboration	- Could you please tell about the last time you had a clinical conversation with a GP, and how the conversation went by? - Do you trust the GPs? - When you are in contact with GPs, do you feel that the GPs trust you as pharmacists? - How do you perceive the division of responsibility between pharmacists and GPs? (for example: who do you see as having responsibility for patient compliance, correct dosage, drug information, practical use of the drug, drug interactions, side effects etc?) - How would you describe your collaboration with GPs? - If you set aside practical factors, like time shortage and lack of communication platforms, which other factors influence your collaboration (or lack of collaboration) with GPs? - How do you perceive the need to better your collaboration with GPs? - Who should contribute with what in order to improve collaboration?
Findings from previous study/reactions to these Proactive pharmacists	In a previous study we found that a proactive approach by the pharmacists was important in order to achieve a successful collaboration with GPs. *(a definition of what we mean by proactiveness)* - Do you have any reflections around this finding based on your personal experiences? - To what extent do you see yourself as being proactive towards GPs? - How has proactive approaches from your side been received by the GPs? - In our previous study we also found that knowing each other was important for collaboration. What are your thoughts regarding this finding?
Communication	In our study we found that some pharmacists were afraid of insulting the GPs whenever they had to contact them regarding prescription errors. - What are your thoughts about this finding? - Do you express yourself in a particular way when contacting physicians?
Shopkeepers/commercial aspect of pharmacy	In our previous study we found that many GPs perceived community pharmacists more as shopkeepers than as health care personnel, and were insecure about the pharmacists´ competence as well as their agenda. The pharmacists did not agree with being shopkeepers. - What are your thoughts on this finding? - Why do you think this is so/the case?

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Power dynamics and interprofessional collaboration: How do community pharmacists position general practitioners, and how do general practitioners position themselves?

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Power dynamics and interprofessional collaboration: How do community pharmacists position general practitioners, and how do general practitioners position themselves?

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ABSTRACT

Power differentials and medical dominance can negatively affect collaboration between physicians and pharmacists. Norway is recognized as having a relatively egalitarian work sector, which could affect power differentials. In this qualitative study, we used positioning theory as a framework to explore the aspect of power dynamics between Norwegian general practitioners (GPs) and community pharmacists. We used the concepts of reflexive and interactive positioning to identify how GPs positioned themselves and how they were positioned by pharmacists in six focus groups. Data were analyzed using systematic text condensation. We found positioning theory to be a useful lens through which to study power dynamics in relation to collaboration between community pharmacists and GPs. Our findings imply that the presence of medical dominance poses challenges even in an egalitarian Norwegian setting. However, although both GPs and pharmacists draw on a 'medical dominance' storyline, we have also identified how both pharmacists and GPs draw on alternative and promising storylines of collaboration between the two professions.

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Interprofessional collaboration; pharmacists; physicians; positioning theory; power dynamics; medical dominance

Introduction

In a paper by Konrad et al. (2019), the authors called for more research on power dynamics in relation to interprofessional collaboration. Power, which can be defined as being in possession of control, authority, or influence over others (Merriam-Webster, n.d.), is highly relevant to the collaboration between general practitioners (GPs) and community pharmacists. These two groups of professionals interact with each other related to the pharmacists' task of dispensing GPs' prescriptions. A traditional power differential between physicians and pharmacists, with physicians ranking higher in the hierarchy, has been well documented (Cooper et al., 2009; Luetsch & Scuderi, 2020; Thomas et al., 2021; Weiss & Sutton, 2009). In most countries, the dominance of the medical profession controls and limits the professional role of pharmacists (Traulsen & Bissel, 2010), and several studies have described how the presence of medical dominance negatively affects a collaboration between physicians and pharmacists (Luetsch & Scuderi, 2020; Rakvaag, Søreide & Kjome, 2020; Rieck, 2014).

Norway is recognized as a country with a relatively egalitarian work sector (Skarpenes & Sakslind, 2010). This could affect such power dynamics, and potentially be a driver for interprofessional collaboration. In this paper, we aim to respond to Konrad et al.'s (2019) call for more research in this field. We explore the aspect of power dynamics between GPs and community pharmacists in a Norwegian setting, by identifying how GPs position themselves and how they are positioned by community pharmacists in profession-specific focus groups. We will further discuss the potential implications of the identified positions on the collaboration between the two professions, seen in the light of previous research on interprofessional collaboration.

Background

The scope of this paper

Multiple factors have been cited as influencing the collaboration between pharmacists and physicians. Previous researchers have categorized these factors into three main categories: contextual characteristics, participant characteristics, and exchange characteristics (McDonough & Doucette, 2001). The focus in this paper is on exchange characteristics, which encompass the social exchanges between pharmacists and physicians. The characteristics within this category have been described as especially influential drivers of pharmacist-physician collaboration (Bardet et al., 2015; Doucette et al., 2005; Zillich et al., 2004).

The Norwegian context

Norway has a national regular GP scheme, which entails that all residents with a Norwegian social security number have the right to be registered with a regular GP. Most GPs are self-employed on a fee-for-service basis, paid partly by the National Insurance Scheme, and partly by the patient. In addition, GPs

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enter into a contract with a municipality, and they are paid according to the number of patients on their list. GPs have responsibility for treatment and follow-up of the patients on their list. They also have responsibility to refer patients to other services within primary health care or to secondary care, if necessary (Sandvik, 2006).

Community pharmacies in Norway are privately owned, primarily by three large pharmacy chains. Most community pharmacists are employees in these chains, and only a few pharmacists own their own pharmacies. About 3,700 pharmacists work in Norwegian community pharmacies (in 2016; Larsen, 2018). These include both MPharm and BPharm. Community pharmacists (with a few exceptions) do not have the right to prescribe. Their main work tasks include dispensing medications from prescriptions, providing patient counseling, and giving medication advice. In addition, pharmacies offer a wide range of extended pharmacy services, such as checking inhaler technique, multi-dose packing, stop-smoking guidance, measurements of blood sugar and cholesterol, mole scanning, and vaccination. In 2001, there was a liberalization of the Norwegian pharmacy market. Since then, there has been a rapid growth in the number of pharmacies, particularly in cities (Larsen, 2018; Vogler et al., 2014).

A report (Oslo Economics, 2020) mapping the collaboration between GPs and pharmacists in Norway found that there is currently limited collaboration between GPs and community pharmacists. The interaction between them could mostly be defined as coordination, most commonly involving non-formalized ad-hoc communication by telephone to clarify issues in connection with dispensing prescriptions. However, the authors found some examples of successful collaboration taking place at small rural sites where the pharmacist and the GP knew each other personally.

Theoretical framework

Positioning theory (Harré & van Langenhove, 1999) focuses on the distribution of rights and duties among people to speak or behave in certain ways, with the aim of highlighting practices that inhibit certain groups of people from performing certain acts or saying certain things by means of a study of *positions* created in *storylines* (Kayı-Aydar, 2019). The act of positioning refers to the assignment of positions or 'fluid roles' to oneself or others through conversation (Tan & Moghaddam, 1999). A position can be specified by reference to a person's role, and the roles individuals have may affect how they position themselves and others. By engaging in positioning, people can claim, deny, and give certain rights, as well as demand or accept certain duties (Kayı-Aydar, 2019).

A storyline can be defined as "the context of acts and positions" (Kayı-Aydar, 2019, p. 6). Participants in a conversation co-construct a storyline in which each participant claims a position for themselves or is given a position by others (Harré & van Langenhove, 1999). These positions can be impacted by existing storylines, as well as by storylines that develop as the conversation unfolds. When people take up new positions, a new storyline develops. As with positions, storylines are not fixed but are open for renegotiation, which means that whenever somebody enacts a certain storyline, other participants in the interaction may choose whether or not they want to be complicit with that storyline and how they are positioned within it. Alternatively, they may generate a competing storyline (Kayı-Aydar, 2019).

Positioning can occur both at an individual level and at a group level, as the personal stories told by people can also include storylines concerning groups of which they are members (Kayı-Aydar, 2019; Tan & Moghaddam, 1999). Intergroup positioning occurs when individual persons or groups of persons position their own or other groups. One example could be the positioning of one's own profession as superior or submissive to another profession (Tan & Moghaddam, 1999). Positioning theory can be useful when studying intergroup relationships. The storylines adopted by different groups may be incompatible or in direct opposition with each other, which can result in conflict. To ease such conflict, it is necessary for the groups to adopt new alternative storylines (Tan & Moghaddam, 1999).

In this study, positioning theory was used as a theoretical framework, both to focus our analysis toward identifying the different positions assigned to the GPs, and in discussing implications of the identified positions in relation to power dynamics and collaboration. We use two concepts – 'reflexive positioning' and 'interactive positioning' – to examine how GPs position themselves and how they are positioned by community pharmacists. 'Reflexive positioning' means the positioning of oneself in response to others, whereas 'interactive positioning' means the positioning of others (Harré & van Langenhove, 1999).

Method

Research design

A focus group design is particularly suited in situations where the goal is to identify the shared experiences, opinions, attitudes, and beliefs of a group rather than those of an individual (Morgan, 1997), and it was therefore considered appropriate to gather opinions from pharmacists and physicians as representatives of their respective professions. This is our second paper to be based on one set of focus group data. In our previous paper (Rakvaag, Søreide, Meland et al., 2020), we identified pharmacists' and GPs' positioning of community pharmacists. We provide here a short summary of participant recruitment, demographics, data collection, and analysis. A more detailed description of the method can be found in our previous paper (Rakvaag, Søreide, Meland et al., 2020).

Participants and data collection

Inclusion criteria for participants were having experience with a community pharmacy or general practice. There were no exclusion criteria. Pharmacists were mainly recruited through a post on a Facebook group that is open to all pharmacists in Norway, with 5,600 members. Physicians were recruited by contacting continuing education networks for GPs. Twelve pharmacists and 10 physicians participated. The participants varied in terms of workplace setting and years of work experience (see participant demographics in Table 1).

Table 1. Participant demographics, retrieved from (Rakvaag, Søreide, Meland et al., 2020).

Variable	Category	Pharmacists *(n = 12)*	Physicians *(n = 10)*
Gender	Female	9	4
	Male	3	6
Age (years)	Mean	35	45
	Range	25–58	36–66
Work experience (years)	Mean	8	17
	Range	0.6–30	8–38
Level of education	Bachelor's degree	0	NA
	Master's degree	12	
Current workplace	Community pharmacy	10	NA
	Hospital pharmacy	2	
Experience as GP (years)	Mean	NA	11
	Range		1–37
Currently working as a GP	Yes	NA	7
	No		3

NA: not applicable

Six focus groups – three with physicians and three with pharmacists – were held in 2019, using profession-specific semi-structured interview guides with open-ended questions (see interview guides in Tables 2 and 3). We chose to have uniprofessional focus groups, as homogeneous groups are recommended in order to prevent tensions within the groups (Malterud, 2017, p. 138) and enable the participants to express their honest opinions. Although a pharmacist served as the moderator in all focus groups with the pharmacists, researchers with different professional backgrounds (pharmacy, education, medicine) were moderators in the focus groups with physicians. Each session was audio recorded and later transcribed verbatim by the first author. By the end of six focus groups, we considered the chosen sample to hold satisfying information power (Malterud et al., 2016), in that all of the participants had relevant experience with the topic under investigation, which

Table 2. Interview guide for physicians.

Theme	Questions
The GPs	What would you say characterizes a good GP?
	What are the typical features of physicians' professional culture? (Could you characterize 'the typical physician'? Are there any unwritten rules or norms that physicians follow?)
	As a GP, I assume that one often finds oneself in situations where there is not one single correct answer to a clinical problem. How do you feel about having to make decisions in such gray areas?
The pharmacists	What would you say characterizes a good pharmacist?
	Do you think GPs and pharmacists have the same priorities/consider the same things as important?
Collaboration	How would you describe your collaboration with pharmacists?
	Could you please tell us about the last time you had a clinical conversation with a pharmacist, and how the conversation went?
	How would you describe your trust in pharmacists?
	When you are in contact with pharmacists, do you feel that they have trust in you as a GP?
	How do you perceive the division of responsibility between GPs and pharmacists? (For example: who do you see as having responsibility for patient compliance, correct dosage, drug information, practical use of the drug, drug interactions, side effects, etc.?)
	If you set aside practical factors, such as time shortage and lack of communication platforms, which other factors influence your collaboration (or lack of collaboration) with pharmacists?
	How do you perceive the need to improve your collaboration with pharmacists?
	Who should contribute with what in order to improve collaboration?
Findings From Previous Study/Reactions to These	
Shopkeepers/commercial aspect of pharmacy	In a previous study, we found that many GPs perceived community pharmacists more as shopkeepers than as health care personnel and were uncertain about the pharmacists' competence as well as their agenda. The pharmacists did not agree with being shopkeepers.
	What are your thoughts on this finding?
	Why do you think this is the case?
Proactive pharmacists	The GPs are probably the most important collaborators for the pharmacists, outside of their own profession, and the contact with other types of health care personnel is much more infrequent. GPs probably deal a lot more with many different types of health care personnel, as well as with other collaborators. How do you perceive your collaboration with pharmacists compared to with your other collaborators?
	In our previous study, we found that a proactive approach by the pharmacists was important in order to achieve a successful collaboration with GPs. *(A definition of what we mean by proactiveness)*
	Do you have any reflections concerning this finding, based on your personal experiences?
	Can you tell us about an occasion when a pharmacist was proactive toward you? What did she/he do?
	In our study, we also found that knowing each other was important for collaboration. What are your thoughts regarding this finding?
Communication	In our study, we found that some pharmacists were afraid of insulting the GPs whenever they had to contact them regarding prescription errors, and that some GPs felt criticized as they were only contacted whenever there was something wrong with a prescription.
	What are your thoughts about this finding?

Pharmacists: community pharmacists

Table 3. Interview guide for pharmacists.

Theme	Questions
The pharmacists	What do you see as the characteristics of a good pharmacist? Do you have any thoughts about what differentiates pharmacists from other health care personnel? What are the typical features of pharmacists' professional culture? (Could you characterize 'the typical pharmacist'? Are there any unwritten rules or norms that pharmacists follow?) Sometimes when working as a pharmacist at the pharmacy, you find yourself in a situation where there is no single correct answer to a problem. How do you feel about having to make decisions in such gray areas?
The GPs	What do you see as the characteristics of a good GP? Do you see any similarities or differences within the professional cultures of pharmacists and of physicians? Do you think pharmacists and GPs have the same priorities/consider the same things as important?
Collaboration	Could you please tell us about the last time you had a clinical conversation with a GP, and how the conversation went? Do you trust the GPs? When you are in contact with GPs, do you feel that the GPs trust you as a pharmacist? How do you perceive the division of responsibility between pharmacists and GPs? (For example: who do you see as having responsibility for patient compliance, correct dosage, drug information, practical use of the drug, drug interactions, side effects, etc.?) How would you describe your collaboration with GPs? If you set aside practical factors, such as time shortage and lack of communication platforms, which other factors influence your collaboration (or lack of collaboration) with GPs? How do you perceive the need to improve your collaboration with GPs? Who should contribute with what in order to improve collaboration?
Findings From Previous Study/Reactions to These	
Proactive pharmacists	In a previous study, we found that a proactive approach by the pharmacists was important in order to achieve a successful collaboration with GPs. *(A definition of what we mean by proactiveness)* Do you have any reflections concerning this finding, based on your personal experiences? To what extent do you see yourself as being proactive toward GPs? How have proactive approaches from your side been received by the GPs? In our previous study, we also found that knowing each other was important for collaboration. What are your thoughts regarding this finding?
Communication	In our study, we found that some pharmacists were afraid of insulting the GPs whenever they had to contact them regarding prescription errors. What are your thoughts about this finding? Do you express yourself in a particular way when contacting physicians?
Shopkeepers/commercial aspect of pharmacy	In our previous study, we found that many GPs perceived community pharmacists more as shopkeepers than as health care personnel and were uncertain about the pharmacists' competence as well as their agenda. The pharmacists did not agree with being shopkeepers. What are your thoughts on this finding? Why do you think this is so/the case?

enabled them to participate in the conversation. Also, there was a high level of engagement concerning the study topic in all the groups. This resulted in high quality dialogs relevant for the study. We therefore did not consider it necessary to include additional groups.

Ethics

The Norwegian Social Science Data Services (NSD) approved the study. Written informed consent was obtained from all participants. All participants received a gift card with a value of NOK 400 (EUR 37) as a small compensation for travel expenses and time spent.

Analysis

The data from the pharmacists and physicians were analyzed separately, using systematic text condensation (STC). STC is a method for thematic cross-case analysis (Malterud, 2012). The theoretical framework of positioning theory (Harré & van Langenhove, 1999) was used to guide our focus toward the reflexive positions (positions assigned to oneself) described by the physicians, and the interactive positions (positions assigned to others) described by the pharmacists. STC is an inductive and iterative approach, consisting of four steps: (a) getting an overview of the data; (b) organizing the data by coding the text and identifying meaning units; (c) systematic abstraction of meaning units by writing condensates; and (d) recontextualisation by synthesizing the condensates, developing descriptions and concepts. Our findings are presented as concepts that represent the identified positions that pharmacists and GPs in the focus groups assigned to GPs..

Findings

This section is a descriptive presentation of the main positions of the GPs that were identified during the focus groups with GPs and those identified during the focus groups with pharmacists. Although participant quotations are presented in the descriptions of the different positions, these quotations serve as illustrations of the findings and not as descriptions of individual or groups of GPs. Consequently, the following presentation is not a description of *persons*, but of *positions* that are assigned to GPs by themselves or the pharmacists. Therefore, the various positions might conflict with or oppose each other.

Positions identified in the focus groups with GPs – reflexive positioning

GPs are autonomous, responsible, and in charge

GPs are a very autonomous group of professionals; who are most comfortable with being their own bosses, without anyone standing above them in the hierarchy. GPs usually make decisions alone in the many decision-making processes involved in

the diagnosis and treatment of patients. An essential part of being a GP is thus to be able to make independent decisions, trust oneself, and handle uncertainty. As one physician noted, "We make our own decisions and have to trust ourselves" (Group 2, physician 1).

GPs have final responsibility for their patients, and must therefore oversee all decisions concerning the patients' medical treatment. They do not want to be undermined, and can feel indignant and offended if pharmacists give patients advice that deviates from the GP's instructions, or if they discuss clinical issues directly with patients without involving the GP.

GPs are health care quality gatekeepers

GPs have the authority and knowledge to define what constitutes good and bad quality health care. They are concerned by a lack of competence or the quality of work performed by other actors within the health care field (included pharmacists), and express a need to assess the quality of the work of others in order to avoid the extra burden of having to 'clean up' afterward. This is illustrated by a quotation from a physician speaking about extended pharmacy services, such as cholesterol measurements and vaccination in pharmacies:

> It would be more acceptable if we knew their internal procedures. It would be okay if I knew that the pharmacists were specially trained, or had taken a 'safety course,' and that they could be held responsible for what they are doing. It has to be addressed clearly – we must be reassured that what they are doing at the pharmacy is quality assured. Then it would be okay by me. (Group 1, physician 1)

As clinicians who see the big picture, GPs are the only ones who can ensure follow-up and continuity in the treatment of patients. If patients use other health care actors instead of their GP, their treatment could become fragmented, and it could also nurture health anxiety and insecurity.

GPs are threatened

Pharmacists who perform extended pharmacy services step into the GPs' sphere and threaten their livelihood. By offering such services, pharmacies 'steal' the GPs' 'easy' patients and their 'easily-earned' income. This leaves the GPs with the more complicated, expensive, and less pleasurable work tasks. GPs and pharmacies are, in other words, in competition for customers. One physician explained, "For us GPs that have private practices, it always gets sort of tense when it comes to finances – it breeds misunderstanding and creates a bad atmosphere when the pharmacies steal my 'flu vaccination patients" (Group 2, physician 1).

GPs' time is precious

GPs are very busy, and they cannot afford to waste any time. GPs are too busy to prioritize any activities to help foster collaboration with pharmacists just for the sake of achieving a collaboration. Potential collaboration with pharmacists can only be achieved if the pharmacists initiate contact, not vice versa. GPs would also need to get some kind of personal gain, such as study credits, to engage in collaborative activities with pharmacists. This is illustrated by the following quotation from a physician:

> GPs work under time pressure, so if we are to have any dialogue with pharmacists in a setting other than the everyday setting, it has to be one that is productive and that gives us something in return, so that we do not waste our time, because that is something we cannot afford. (Group 1, physician 1)

GPs are not infallible

GPs are vulnerable; their mistakes have the potential to be fatal and irreparable. In certain areas regarding medication, GPs have limited competence, and they therefore appreciate pharmacists' help in these areas. The double-checking and quality control performed by pharmacists is reassuring, both for GPs and for patients. In the words of one physician:

> I really appreciate that they [pharmacists] call, of course I do! (. . .) It is important and useful that someone checks, because sometimes it all goes a bit quickly, and then it is easy to make mistakes, even if you aren't supposed to. (Group 3, physician 3)

Positions identified in the focus groups with pharmacists – interactive positioning

GPs are skilled, but busy

GPs are to be trusted, as they are highly skilled and competent within their field of expertise. GPs' time is valuable, but it is limited. Time constraints sometimes hinder GPs from keeping themselves updated on new medications and recommendations, and are sometimes also the cause of mistakes in prescriptions. As making mistakes is human and happens to everyone, the competence of GPs should not be distrusted. A pharmacist explained it this way:

> A GP can be great at treating patients even if he is not updated. This does not make me think that he is a poor physician, I just assume that he might have missed that there is a new treatment recommendation. Then I just notify him. (Group 1, pharmacist 3)

GPs are on top of the hierarchy

GPs are the ones in charge. They always have the final say, and their decisions cannot be overruled by a pharmacist. Consequently, being a GP is more prestigious than being a pharmacist, and their place in the hierarchy is already established at the university level, with medical programmes being longer and having higher grade admission requirements than programmes for other health professions. Patients trust physicians and pay more attention to advice given by physicians than by pharmacists. However, this position also comes with burdens, such as having to bear full responsibility for making a diagnosis and the choice of treatment. As one pharmacist noted, "I think that the GPs have an extra burden of responsibility compared to us, because they must make a diagnosis and choose the correct treatment from among many possible medications" (Group 3, pharmacist 1).

GPs are cooperative and open to input

GPs are very cooperative, helpful, and easy to talk to. Most GPs wish to have a good collaboration with pharmacists. GPs trust pharmacists, and they understand that when pharmacists contact them it is because of something important. They are very grateful when pharmacists discover and correct errors in

prescriptions. One pharmacist stated, "In my experience, most GPs are very supportive and helpful. They understand that we have an important role, and that when we call it is because something is wrong" (Group 3, pharmacist 1).

GPs are not very helpful or cooperative

GPs are not very easy to collaborate with, mainly due to their attitudes. They are often unavailable, due to long holidays, short opening hours, frequent breaks, undisclosed telephone numbers, long waiting times for contact by telephone, and gatekeeping secretaries. They also do not reply or give feedback to pharmacists' inquiries. The older generation of physicians in particular perceive themselves as being better and more skilled than pharmacists, and do not trust pharmacists' professional knowledge. GPs are not willing to accept help from other professions regarding patient treatment. As one pharmacist pointed out, "A main difference [between GPs and pharmacists] is that the GPs are not open towards accepting any help regarding patient treatment, whereas we are very open towards this" (Group 2, pharmacist 5). Compared to other professional groups, the GPs find it challenging to admit to any mistakes, and they are afraid of losing face. Finally, GPs and the Norwegian Medical Association are protective of their professional territory and economic interests.

GPs must be looked after and controlled

GPs make many mistakes – sometimes serious ones – and they therefore need to be looked after by pharmacists in order to prevent patients from being exposed to harm. One pharmacist exclaimed: "The GPs make so many mistakes!" (Group 2, pharmacist 1). Due to differences in their education, GPs are less precise than pharmacists. GPs also avoid taking responsibility in situations where patients use medications prescribed by other physicians, as they do not see it as their responsibility, are afraid to step on other physicians' toes, or do not dare to interfere with a specialist's decision. In addition, GPs do not give their patients sufficient information, because they do not have, or do not take, the time needed to inform their patients properly. Also, they often do not have the necessary communication skills, and talk 'over the patients' heads.' This applies particularly to older GPs, whereas the younger generation have better communication skills.

Discussion

The identified positions serve as a starting point for discussing common or conflicting positions and storylines in relation to power dynamics and collaboration between GPs and community pharmacists.

Positions and medical dominance

Despite the egalitarianism of Norwegian society in general, several of the identified positions contain aspects that could be described as medical dominance. The concept of medical dominance, originally developed by Freidson (1988), refers to the medical profession's control over the content, terms, and conditions of its own work (autonomy), control over the work of other health occupations (authority), and control over the broader context of health care (sovereignty; Wranik & Haydt, 2018).

Examples of aspects of medical dominance in our material are when not only the reflexive but also the interactive positioning of the GPs draw on a storyline that situates GPs at the top of the hierarchy of health care professions, that questions the GPs' need for knowledge, input and assistance from other health care professions (pharmacists included), and that allows GPs to protect their territory by setting the standards for good and poor quality health care. Many of these aspects fit into the four categories of medical dominance defined by Luetsch and Scuderi (2020): (a) demarcation against and criticisms of pharmacy services that encroach on medical territory (e.g., vaccinations); (b) denigration or denial of pharmacists' or other health professionals' role, skills or service, (e.g., to other health professionals or patients); (c) evasion of scrutiny (e.g., refusal by doctors to engage with a pharmacist who questions prescriptions or to rectify prescription errors [either therapeutic or regulatory errors]); and (d) dismissal or disparagement of evidence-based or patient-based advice to correct medical decisions that could potentially have caused patient harm.

Medical dominance has been reported as one of the key barriers to interprofessional collaboration and teamwork (McNeil et al., 2013). Most of these aspects of medical dominance identified in the positioning of the GPs could be seen as barriers to collaboration, as they draw on and uphold a storyline that underscores the hierarchy in the relationship between GPs and community pharmacists. As storylines allow actors and groups to position themselves and others (Louis, 2008), the storyline of medical dominance is powerful, not only because it assigns GPs high relative power but also because this storyline is highly significant in the interactive positioning of GPs by the pharmacists participating in the focus groups. If alternative storylines are weak, or non-existent, there will also be fewer possibilities for pharmacists to assign alternative positions to GPs that would change the power balance and cooperation between the professions. As groups with high relative power benefit from the status quo (Louis, 2008), there might be no incentives for GPs to negotiate alternative storylines that would allow alternative positions implying alternative power relationships. In other words, the dominant storyline of medical dominance might uphold the current positions we have identified, as a new position would have to be "viable to the extent it is embedded in a mutually acceptable story line" (Louis, 2008, p. 30). In the next section, however, we identify ambiguities in the identified positions, and consider how this ambiguity might support storylines that underscore the importance of collaboration.

Positions and ambiguity

Although the power of the storyline of medical dominance is strong, our analyses also illuminate positions and storylines that highlight other aspects that better promote collaboration. We identified 'windows of possibility' in the material related to collaboration. These possibilities and alternatives are visible in three instances of ambiguity, and they overlap across and within the interactive and reflexive positioning.

There is ambiguity within pharmacists' interactive positioning of GPs concerning their willingness to collaborate. We have identified the two opposing positions of GPs as being both 'cooperative and open for input' and 'not very helpful or cooperative.' At first glance, this may seem to be indecisiveness on the part of the pharmacists. However, our analyses also illuminate that, across the focus groups, this ambiguous positioning draws on a generational storyline, whereby younger GPs are regarded as being more cooperative and more open than the older generation of 'old school' GPs.

An additional ambiguity can be identified from the pharmacists' interactive positioning and GPs' reflexive positioning, whereby both professions position GPs as being highly skilled and autonomous, as having the main responsibility for patients, and simultaneously as being 'not infallible' and being dependent on the pharmacists for quality control. Here, GPs and pharmacists draw on a coinciding storyline concerning GPs' autonomy, dependence, challenges, and need for support in their everyday working lives. This overlap in storylines could benefit collaboration. According to positioning theory, there is less intergroup conflict when different groups have similar, or draw on the same, storylines concerning their intergroup relationships (Tan & Moghaddam, 1999). Agreement regarding professional roles has also been shown to be a core competency that is necessary for interprofessional collaboration (Suter et al., 2009).

Connected to this, and maybe most promising when it comes to collaboration, is the overlap in the GPs' reflexive positioning that 'GPs are not infallible' and the interactive positioning by the pharmacists that 'GPs must be looked after and controlled.' Positioning theory emphasizes that "'group histories' and 'histories of intergroup relations' are not fixed, objective narratives, but are collaboratively produced and ever-changing storylines, seen from particular positions" (Tan & Moghaddam, 1999, p. 187). This implies that both storylines and positions can be negotiated, changed, and adjusted. The overlapping storyline where GPs are positioned as dependent on pharmacists adds to the pharmacists' undoubted dependency on GPs, thereby creating a new storyline that positions the two professions as interdependent partners, with each performing different but important tasks. This narrated relationship of dependency is promising with regard to collaboration – first as such interdependency is found to be a core determinant for physician-community pharmacist collaboration (Bardet et al., 2015), and second because new positions will be viable to the extent they are embedded in mutually acceptable storylines, such as the ones we have identified.

Limitations

Factors other than those discussed here may have influenced our findings. In this study, we limited our scope primarily to 'exchange characteristics.' It is plausible that contextual characteristics, such as different models of employment between GPs and community pharmacists, or different economic incentives for collaboration between the two professions, could have influenced our findings. It is plausible that participant characteristics, such as age, may also have had an influence. In our cohort, the mean age of the participating pharmacists were lower than that of the GPs. This may be due to the slightly different modes of recruitment, and may potentially have influenced our findings.

Conclusion

We introduced the use of positioning theory as a novel theoretical approach in the research field of power dynamics in relation to interprofessional collaboration. As far as we know, positioning theory has not previously been used by others to study the power dynamics between pharmacists and physicians.

Our findings imply that the presence of power disparities and medical dominance poses challenges and barriers to the interprofessional collaboration between GPs and community pharmacists, even in an egalitarian Norwegian setting. However, our findings also suggest that there is potential for collaboration. By using positioning theory, we identified how the participants drew on shared and unshared storylines and positions that illuminated the rights and duties of the different professions. The identified instances of ambiguity and overlap in how both professions positioned the GPs could be regarded as promising with regard to collaboration. Most importantly, the ambiguity indicates that the positions are not entirely fixed, and that there is room for creating new or further developing alternative storylines that are more promising for collaboration.

Although both GPs and pharmacists in our study clearly draw on the 'medical dominance' storyline in their positioning of the GPs, the pharmacists do not restrict themselves to this storyline; they, as well as the GPs, draw on alternative and promising storylines of collaboration between the two professions. Our findings suggest that there are alternatives to the storyline of medical dominance that are relevant for the positioning of GPs and for the collaboration between GPs and pharmacists.

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Appendix 1

Appendix 1: Overview of CPs' and GPs' reflexive and interactive positions identified in a Norwegian context (Papers II-III)

	Reflexive positions (assigned by the profession themselves)	Interactive positions (assigned by the other profession)
CPs	CPs are the last line of defence	CPs are a useful checkpoint
	CPs are outsiders – with responsibility, but with a lack of information and authority	CPs are unknown
	CPs are practical problem solvers	CPs are non-clinicians
	CPs are bridge-builders	
GPs	GPs are autonomous, responsible and in charge	GPs are at the top of the hierarchy
	GPs' time is precious	GPs are skilled, but busy
	GPs are threatened	GPs are not very helpful or cooperative
	GPs are not infallible	GPs must be looked after and controlled*
	GPs are healthcare quality gatekeepers	GPs are cooperative and open to input

** In Paper III we use the term "controlled", directly translated form the Norwegian term "kontrollert". However, in hindsight, "quality-checked" is a more accurate term.*

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