Evolving Professional Identity: Exploring How Pharmacists Make Sense of their Prescribing Role

by

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Abstract

Dramatic changes in the pharmacy profession have occurred in the past century. Many of these occurred as the primary focus of the pharmacist transitioned from drug products to providing patient care services. Prescribing by pharmacists gained momentum when it was implemented in the United Kingdom in 2003; other jurisdictions followed, including the province of Alberta, Canada in 2007. Pharmacist prescribing is a mechanism for expanding pharmacists' roles, changing health care delivery, and enhancing patient care. The approval of pharmacists' prescribing authority in Alberta facilitated exploration of a new role for pharmacists. This qualitative study examines how practicing pharmacists enact and make sense of their patient care roles as prescribers. Using a social constructionist approach, this study explores pharmacist prescribing from the perspectives of the profession and the individual professional in two intersecting phases. In the first phase, 128 professional texts on pharmacist prescribing were analyzed using a discourse analysis approach based on Potter and Wetherell (1987). In the second phase, interviews of 20 pharmacist prescribers were analyzed using a constructivist grounded theory approach (Charmaz, 2006).

Results from phase one identified three discourses associated with the discursive constructs of pharmacists' identities as prescribers: (1) expertise, (2) interprofessional collaboration, and (3) moving forward. Pharmacists were initially constructed as drug therapy experts, highly educated professionals well suited for the prescribing role. Interprofessional collaboration was acknowledged as essential for successful pharmacist prescribing. The discourse of moving forward framed the pharmacy profession as undergoing dramatic and ongoing changes associated with pharmacist prescribing. These discourses influenced how pharmacists initially enacted the prescribing role. Pharmacists' experiences with prescribing, in

turn, influenced the presentation of the expertise and collaboration discourses in professional texts.

In phase two of the study, *reconstructing professional identity*, the core grounded theory concept, emerged from three categories: (1) integrating information about the prescribing role, (2) limiting and expanding prescribing, and (3) balancing collaboration and independence. *Reconstructing professional identity* encompasses how pharmacists realize responsibility for prescribing through an iterative process of active engagement with prescribing activities as authorized prescribers within the context of their information environments. As pharmacists gain experience, the prescribing role continually evolves; however, it evolves differently for pharmacists based on their individual experiences and practice settings. For some, the prescribing role gradually became normalized; prescribing became one thread among many others in the course of their daily professional work.

This study facilitated an in-depth exploration of pharmacists' experiences as authorized prescribers. Looking at these experiences through an information behaviour lens revealed ways that information influenced how they enacted the prescribing role and contributed to their evolving professional identity. Pharmacists will benefit from reflecting on the process of *reconstructing professional identity* described in this study. The results of this study will be of interest to other scholars interested in new professional roles and the role of information in the process of making sense of the prescribing role. Pharmacy educators and regulators may utilize the results of this study to develop programs to support students and practicing pharmacists in the evolution of their roles and professional identity.

Preface

This thesis is an original work by Theresa Schindel. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name "Evolving Professional Identities: Exploring How Pharmacists Make Sense of and Enact their Prescribing Role", No. Pro00038422, April 1, 2013.

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D. Hicks and I shared equal responsibility for the concept formation, manuscript composition, and edits.

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Prologue

*Threads carried forward from the past can serve as resources in the present, as well as providing openings for change that continues into the future. (*Dall'Alba, 2009)

In concluding this dissertation, I recognize many threads carried forward from my past and how they contributed to my experiences with this work.

The original thread came from my experiences as a pharmacy student. One of my professors often spoke about the changes in pharmacy practice he observed in the course of his career. He referenced work by the Commission on Pharmaceutical Services (1971), emphasizing the recommendations to grant pharmacists authority to prescribe medications. He hoped that his students would have the opportunity to practice pharmacy as prescribers, and we had a similar hope for ourselves; however, our enthusiasm waned when he reminded us that when he was a student, he had also expected to see pharmacist prescribing become a reality. After 40 years, he was still waiting. I only had to wait 20 years. Pharmacist prescribing was approved in 2006.

The second thread relates to my experiences as a pharmacist. In my first professional position, I worked in a team-based practice setting in a patient care role. I contributed to prescribing decisions, working side-by-side with physicians, nurses, and other health care professionals. Opportunities for pharmacists to contribute to team-based patient care were not plentiful at the time. This opportunity awakened me to the possibilities for my profession. It set expectations for my involvement in patient care, influenced my career trajectory, and inspired me to contribute to ongoing encouragement of pharmacists to take on similar roles.

Following a decade of work in pharmacy practice, my attention turned to exploring how professionals learn – the third thread. While completing a Master of Continuing Education

degree, I joined the University of Alberta in roles related to continuing professional development for pharmacists and later to curriculum development and teaching in the pharmacy programs. I contributed to research projects that explored changes in professional education and adoption of the prescribing framework shortly after approval of prescribing in Alberta. I sensed there was a story to tell around the prescribing role; how it was enacted and what it meant to pharmacists. My interest in research and the professional role of pharmacists led me to this doctoral work.

I chose an interdisciplinary doctoral program to expand my horizons and acquire new disciplinary perspectives. I wanted to explore the possibilities qualitative research offered for understanding the changing professional role of the pharmacist. My choice in supervisors reflects these goals. Selecting supervisors from the disciplines of higher education and leadership, library and information studies, and qualitative research enabled me to expand my perspectives on research and practice. In addition, utilizing the theories of information behaviour enriched my experience and opened the possibility to explore my research topic through perspectives new to me. Within this broad field, I chose an aspect of information behaviour that is concerned with making sense, or how people use information to understand the world and how they act on that understanding, to help me explore pharmacists' experiences of their changing professional roles.

The thread of information behaviour helped me to tie together and carry forward my past perspectives and experiences as a student, practitioner, and educator. In the role of student once again, I recognize how my perspective shifted from a singular focus on pharmacist prescribing to contemplating the complex nature of the pharmacist's professional roles and evolving identity. Carrying threads forward from this work will provide resources for change and research that continues in the future.

Chapter One: Introduction

Dramatic changes in the pharmacy profession have occurred in the past century. Many changes evolved as the primary focus of the pharmacist transitioned from drug products to patient care services. These changes present opportunities and challenges for the profession. Pharmacists have opportunities to engage in new roles and assume greater involvement in patient care, medication management, and prescribing, previously the domain of other professions. Pharmacists now practice in a variety of contexts, including the neighbourhood pharmacy, big-box stores, hospitals, specialty medical clinics, and long-term care facilities. As health care needs become increasingly complex, more and more new treatments are introduced, our population ages, and longevity increases, the need for pharmacists to be involved in patient care is more acute than ever. The pharmacy profession now faces the challenge of doing its part to meet societal needs for health care services. Changes in roles of pharmacists coincide with changes for the profession as a whole.

Pharmacist prescribing is a change that has gained much attention since it was pioneered in the United States and introduced in the United Kingdom (UK) over a decade ago (see, for example, Emmerton, Marriott, Bessell, Nissen, & Dean, 2005; Tonna, Stewart, & McCaig, 2008). Alberta was the first province in Canada to approve a model that permitted independent prescribing by pharmacists. This approach was counter to that taken by the UK government whereby pharmacists, nurses, and optometrists were granted supplementary prescribing authority, were required to complete a mandatory educational program, and could only prescribe under the supervision of an independent prescriber, usually a physician (Cooper et al., 2008a; George et al., 2006a; Tonna, Stewart, West, & McCaig, 2007). Independent prescribing was later granted only to supplementary prescribers (George, Pfleger, McCaig, Bond, & Stewart, 2006b).

In Canada, the Alberta practice environment is considered among the most progressive in the world (Al Hamarneh, Rosenthal, McElnay, & Tsuyuki, 2012). Pharmacists are permitted not only to prescribe medications, but also to access electronic medical records, order laboratory tests, and administer drugs by injection (Yuksel, Eberhart, & Bungard, 2008). Other provinces in Canada are moving toward a prescribing role for pharmacists, yet none of them have followed Alberta's lead to approve an independent prescribing model with very few restrictions.

This study explored the experiences of pharmacists adopting a new patient care role as prescribers in Alberta. Research to date has largely explored pharmacists' initial experiences with prescribing (Charrois, Rosenthal, & Tsuyuki, 2012; George et al., 2006a; Guirguis et al., 2014; Lloyd & Hughes, 2007; Tully, Latif, Cantrill, & Parker, 2007). Some pharmacists in Alberta have now had up to ten years of experience in the new role. This research fills a gap in the literature by providing insight into pharmacists' experiences with prescribing and the development of their professional identity. These areas of inquiry remain largely untapped by pharmacy practice research to date. Similarly, in the disciplines of information science, little attention has been paid to studies of pharmacy practice; the implications for research in these two areas arising out of this study are plentiful. This work will be useful to local, national, and international policymakers and educators in decision-making about the new roles of pharmacists. Research and theory in the areas of professional identity and information behaviour are used to explore how pharmacists make meaning of and enact their patient care roles as prescribers and team members in the modern health care environment.

Background

The Alberta Premier's Advisory Council on Health identified a number of problems in the health care system over a decade ago. Many of these problems persist, including individual

responsibility for health, difficulty accessing services, rising costs, and lack of information about health outcomes to aid in making decisions or assessing quality (MacLeod-Glover, 2011). These problems all affect the pharmacy profession in some way.

In Alberta, lack of access to primary health care is a problem recognized by both the public and the government. This situation is not unique to the province of Alberta. Lack of access to health care is an ongoing social problem throughout Canada (Fleras, 2001; Pal, 2010) and in many countries around the world. The issue of access to physicians is the major cause of this problem, especially in rural communities. According to data collected by the Organization for Economic Co-operation and Development (OECD), 2.88 physicians per 1000 population were practicing in Canada in 2015, which is below the OECD average of 3.29 per 1000 (OECD, 2017). With insufficient access to physician care, many Canadians struggle to have their health care needs met. By contrast, the number of pharmacists in Canada exceeds that in many nations of the world. Most OECD countries reported between 0.24 and 1.37 pharmacists per 1000 population in 2015. Canada reported 1.04 pharmacists per 1000, a figure above the OECD average of 0.88. Based on an estimated population in Alberta of 4.2 million (Statistics Canada, 2017) and an estimate of 5055 working pharmacists (Alberta College of Pharmacists, 2017), approximately 1.2 pharmacists were working per 1000 population in 2015.

Pharmacists are well positioned to provide much-needed health care services to Albertans. The pharmacy profession represents an underutilized resource in the health care system with the potential to enhance access to primary care services. The professional organization representing regulated pharmacy in Alberta, the Alberta College of Pharmacists, proposed that difficult access to medications could be addressed, in part, by allowing pharmacists to prescribe. Following many presentations and debates on this issue, the

Government of Alberta passed legislation allowing pharmacist prescribing in 2006. During the implementation of this legislation, the Alberta College of Pharmacists introduced three categories of pharmacist prescribing: (a) adaptation of another prescriber's prescription, (b) prescribing in an emergency, and (c) additional prescribing. At the time of its implementation in 2007, all practicing pharmacists in Alberta were granted authority to prescribe medications in the first two prescribing categories following an orientation session. Eligibility for the third category, additional prescribing authorization (APA), entailed a rigorous process of peer review following submission of a prescribing portfolio.

Since the introduction of prescribing in Alberta, 1658 of 5363 pharmacists have been granted APA (Alberta College of Pharmacists, 2017). Thus, approximately 31% of Alberta's pharmacists have APA, an increase from 3% in 2011. The first pharmacists to be granted APA participated in a pilot program to evaluate the APA process in 2007 (Yuksel et al., 2008). At the conclusion of the pilot program, 15 pharmacists were granted APA. The average age of the pharmacists was 43.6 years with a range of 34 to 63 years. The practice environments of these 15 pharmacists granted APA included ambulatory clinics (40%), community pharmacies (33%), and hospital or continuing care facilities (27%). Education requirements beyond the entry-to-practice degree for pharmacy practice are not required for prescribing authorization. However, over half of the pharmacists granted APA in the initial pilot program had completed a Doctor of Pharmacy degree or a residency in hospital pharmacy practice.

The number of pharmacist prescribers in the UK continues to increase. During the first year following the introduction of supplementary prescribing in the UK, 322 pharmacists were registered (Tully et al., 2007). The number of pharmacists reported in 2015 to have prescribing authority was 3845 (approximately 8%), up from 3% in 2011 (Cope, Abuzour, & Tully, 2016;

Seston & Hassell, 2010). Currently there are over 750 pharmacists with independent prescribing authority in Scotland (approximately 20%) with a goal for all pharmacists to be authorized by 2023 (Stewart et al., 2017).

There are multiple barriers to pharmacists prescribing. Lloyd, Parsons, and Hughes (2010) reported that not all pharmacists with prescribing authorization were actively prescribing medications. Researchers from Canada and the UK observed that pharmacists desire additional resources and further education to support adoption of the prescribing role (Jorgenson, Lamb, & MacKinnon, 2011; McIntosh, Munro, McLay, & Stewart, 2012; Stewart et al., 2017). Other barriers include a lack of compensation, networking, opportunities to prescribe, and recognition of the role (Makowsky et al., 2013; Stewart et al., 2017). In addition, prescribing roles for pharmacists on medical teams need to be clearly defined (Tonna, Stewart, West, & McCaig, 2010), as multiple and contradictory views of pharmacist prescribing coexist (Schindel & Given, 2013).

Purpose of the Study

There is little research that explores pharmacists' experiences with the new prescribing role. Such research is needed to further our understanding of pharmacists' experiences with the prescribing role and how professional identity evolves after adoption of a new patient care role. This study explores pharmacists' prescribing role in the context of the unique practice environment in Alberta in order to improve our understanding of that role and the evolving professional identity associated with it. Combining grounded theory and discourse analysis approaches permits exploration of the experiences of pharmacists who choose to adopt a prescribing role.

Research Problem and Research Questions

In-depth research is required to explore pharmacists' experience as prescribers and how they make sense of the prescribing role. The research problem for this project is:

- How do pharmacists enact and make sense of their patient care roles as prescribers?

This study will explore pharmacists' identities as prescribers as represented in professional documents, investigate their information behaviours related to their professional role as prescribers, and describe their experiences with professional education and professional development. The research questions therefore include:

- What are the discursive constructs of pharmacists' identities as prescribers?
- How do pharmacists make sense of their professional role as prescribers in the information age?
    - How (if at all) has this role evolved?
    - What are pharmacists' information behaviours in the context of their professional role as prescribers?
- What is the influence of professional education and professional development experiences on pharmacists' understanding of their role as prescribers?

Significance of the Study

This study addresses pharmacists' individual experiences within the larger context of the health care system and modern social forces (Mills, 1959). One important issue in today's society is the inaccessibility of health care services, some of which may be provided by pharmacists adopting new roles. Focusing on pharmacists' experiences in the prescribing role, this study explores how they interact with, integrate, and construct their professional identities through occupying a new role. Specific strategies used to make sense of the prescribing role in

the Alberta practice environment are described. Pharmacists, researchers, educators, and policymakers may gain a deeper understanding of pharmacists' experiences with this new role that is so critical to the evolution of the profession. The insights of this study will be valuable to other scholars interested in professional change, professional pharmacy jurisdictions implementing prescribing, individual professionals adopting new roles, and educators supporting development of professional identity. The goals for this interdisciplinary research are that its findings will (1) generate new understanding of professional identity and new roles, (2) inform professional education and professional development, (3) contribute to understanding health information behaviours in the context of professional practice and identity, (4) offer direction to professionals looking to change their practices, and (5) contribute to the pharmacy profession's understanding of pharmacist prescribing and possibilities for educational and professional policy reform.

Description of the Study

This qualitative study is based on a social constructionist framework. It was conducted in two intersecting phases. The first phase involved analysis of professional documents on pharmacist prescribing created by the Alberta College of Pharmacists (e.g., applications for prescribing authorization), documents describing pharmacist prescribing in Alberta and Canada, and personal documents provided by the study participants. The discourse analytic approach selected for phase one of this research draws on the work of Potter and Wetherell (1987). This method was chosen to explore the discursive constructs of pharmacists' identities as prescribers because language is used to enact or portray identities (Burr, 2003; Gee, 2011). This phase was initiated first and continued throughout the duration of the study. The second phase explored perspectives of individual pharmacists who have adopted pharmacist prescribing in their

practices, involving analysis of data collected through in-depth interviews. In this second phase of the study, grounded theory was utilized for its systematic, flexible, and comparative approach to inductive qualitative research (Bryant & Charmaz, 2007; Charmaz, 2006; Glaser & Strauss, 1967). The Charmazian (2006) approach used in this study "places priority on the phenomena of study and sees both data and analysis as created from shared experiences and relationships with participants and other sources of data" (p. 130).

Organization of the Dissertation

This dissertation consists of six chapters. The next chapter reviews the literature concerning pharmacists' roles and the introduction of pharmacist prescribing. This review is followed by an exploration of professional identity, pharmacy education, and information behaviour. Information behaviour serves as a uniting element in the conceptual framework for this research. The chapter concludes with an explanation of the conceptual framework for the study. In Chapter Three, the research methods used in this study are described. As the intent of phase one of the study is to both address one study question (what are the discursive constructs of pharmacists' identities as prescribers?) and provide context for another (how do pharmacists make sense of their professional role as prescribers in the information age?), the results are described in Chapter Four and discussed in Chapter Five. Chapter Six is the dissertation's concluding chapter. It summarizes the major findings and makes recommendations for policy, practices, and possible areas for future research. An appendix listing the texts comprising the data set for phase one of the study and five other appendices providing additional materials related to the study's research design follow.

Chapter Two: Review of the Literature

The professional work of pharmacists has undergone extreme transformation (Goodrick & Reay, 2011). Dramatic changes have occurred in the pharmacy practice environment in Alberta, which is regarded as among the most progressive in the world and noted to be the first Canadian jurisdiction authorizing pharmacists to prescribe medications and order laboratory tests for patients (Yuksel, Bungard, & Eberhart, 2008). Despite the dramatic changes to the pharmacy profession, very little research has documented the experiences of the pharmacists who have adopted these new roles in society. In this study, I explore how pharmacists enact and make sense of their patient care roles as prescribers and develop their professional identities. An understanding of the evolving professional identity of pharmacists who have made changes in their own professional work is essential to the pharmacy profession. This research provides insight into the process of pharmacist adoption of new patient care roles as they enact and gain experience with these roles.

Ten years have passed since pharmacist prescribing was first implemented in Alberta. Thus, an in-depth exploration is timely. The environment has changed since pharmacist prescribing was first introduced. More pharmacists than ever are engaged in prescribing; in this dissertation, their experiences, development of policies and processes in conjunction with the Alberta College of Pharmacists, and the state of pharmacist prescribing worldwide are discussed. The goal of this chapter is to bring clarity to certain concepts central to the experience of pharmacists who have adopted these new roles in society and review these concepts as they were currently understood by the researcher at the time this study was conducted. This chapter also provides historical and local context for the study. This research contributes to the knowledge of changing professional roles, professional identity, and professional education. These concepts

are brought together through an exploration of pharmacists' experiences by looking through the lens of information behaviour.

The role of the literature review has been a focus of discussion since Glaser and Strauss (1967) introduced grounded theory. Some scholars have asserted that a literature review prevents the researcher from entering a project with an open mind (Glaser & Strauss, 1967; Charmaz, 2006). Bryant and Charmaz (2007), however, observed that an open mind is "not an empty mind" (p. 20). In this dissertation, the literature review serves to clarify research questions and review research that informed development of the conceptual framework for the current study. Further, this literature review documents perspectives the researcher brings to this project at the outset as a historical and reflexive record of key concepts. The literature review was regarded as a starting point for this study. As the research project unfolded, the researcher continually and iteratively revisited the literature to make sense of observations and deepen understanding of the relevant phenomena.

This review begins with an overview of changes in pharmacists' roles, describing the introduction and initial implementation of pharmacist prescribing in Alberta. Next, research is reviewed on pharmacists' prescribing and involvement in collaborative team care. These two areas of research were chosen as representative of the newest aspects of pharmacists' roles. This review is followed by an exploration of professional identity. The next section addresses pharmacy education, highlighting trends and challenges related to supporting ongoing growth and development of pharmacy professionals in new roles. The field of information behaviour is subsequently introduced.

Overview of Pharmacists' Roles

Over the last century, the pharmacist's role in society has transformed to include a range of professional tasks, from concocting custom-made remedies and providing information about drugs to educating patients and other health professionals about medications and prescribing medications for patients. The World Health Organization (1997) recognized several essential elements of the pharmacy profession in today's world. Pharmacists may act as caregivers, communicators, decision-makers, teachers, life-long learners, leaders, and managers. Goodrick and Reay (2011) observed the change in the role of pharmacists over the last century as "one of the most extreme cases of transformation in professional work" (p. 373).

In the history of the pharmacy profession, the change to a patient-focused role is a relatively recent phenomenon. It was brought to the fore in the inaugural edition of *Drug Intelligence* in 1967. Then came Hepler and Strand's (1990) call to adopt pharmaceutical care as a guiding philosophy whereby pharmacists assume responsibility for drug therapy outcomes. Francke (2006) called for pharmacists in the United States to adopt "…modern, broad concepts of their role as health care professionals… to relate more directly to the patient, the physician, and the nurse" and to imagine themselves as "practitioner[s] of clinical pharmacy in the same way that the physician is a practitioner of clinical medicine" (p. 114). This vision for pharmaceutical care has now been widely adopted by the profession in North America, much of Europe, and the UK. In a portrait of the pharmacy profession around the world, Anderson (2002) framed the emergence of a caregiver role for pharmacists as a most exciting and encouraging development for the profession.

Specific references to new roles for pharmacists in patient care delivery as integral members of the health care team are also part of the profession's history. A prescribing role for

pharmacists was mentioned more than 40 years ago in a report from the Commission on Pharmaceutical Services, which stated that "the ultimate goal should be to give the pharmacist the responsibility for prescribing medication and monitoring the patient's response to his therapy regimen" (1971, p. 117). More recently, Romanow (2002) highlighted changing roles for pharmacists in a report of the Canadian Health Commission in which pharmacists were described as "…part of the primary health care team, working with patients to ensure they are using medications appropriately and providing information to both physicians and patients about the effectiveness and appropriateness of certain drugs for certain conditions" (p. 194).

Pharmacists now engage in prescribing activities in a variety of practice settings worldwide, including community pharmacies, ambulatory clinics (primary care or family medicine clinics), and hospitals (Doloresco & Vermeulen, 2009; Emmerton et al., 2005). Pharmacist prescribing gained much attention following its introduction as a supplementary service in the UK in 2003, where pharmacists initially worked with another prescriber, usually a physician mentor, then became independent prescribers in 2006 (Cooper et al., 2008a; Tonna et al., 2007). More recently, pharmacists in the UK have begun exploring the role of pharmacist mentors, a role traditionally held by physicians, for training independent prescribers (General Pharmaceutical Council, 2016, November). In Canada, Alberta was the first province to approve independent pharmacist prescribing in 2006 (Yuksel et al., 2008). Since then, other provinces in Canada have introduced a variety of prescribing models (Canadian Pharmacists Association, 2016, February; Law, Ma, Fisher, & Sketris, 2012; MacLeod-Glover, 2011; Sketris, 2009).

Following the approval of legislation allowing pharmacists to prescribe, the Alberta College of Pharmacists introduced three categories of prescribing that were implemented in 2007: (a) adaptation of another prescriber's prescription, (b) prescribing in an emergency, and (c)

additional prescribing (Yuksel et al., 2008). At the time of implementation, all practicing pharmacists in Alberta were granted authority for the first two categories of prescribing following completion of an orientation program (MacLeod-Glover, 2011; Yuksel et al., 2008). A process for granting additional prescribing authorization (APA) was developed and piloted with 29 pharmacist volunteers in 2007 (Yuksel et al., 2008). At the conclusion of the pilot program, 15 pharmacists were granted APA.

Following the completion of the pilot program, the APA application process was modified and implemented in 2008 and updated in 2013. First, pharmacists were required to meet five eligibility requirements to apply for APA: (a) good standing on the clinical register of the Alberta College of Pharmacists, (b) two years of full-time practice experience or equivalent (residency in-hospital pharmacy practice), (c) education or training related to the area of practice and anticipated prescribing, (d) collaborative working relationships with at least two other regulated health professionals, and (e) knowledge, skills, attitudes, clinical judgment, and practice processes in place to manage drug therapy safely and effectively. The application process implemented in 2008 required submission of a structured self-assessment, letters of recommendation from two other regulated health care professionals documenting effective collaboration in practice, documentation showing process of patient care, and a $350 application fee (Alberta College of Pharmacists, 2008a).

The Alberta College of Pharmacists reviewed the APA approval process in 2012, reducing the practice experience requirement to one year and eliminating the requirement for letters of recommendation (Alberta College of Pharmacists, 2013a). To date, approximately 30% of pharmacists in Alberta have been granted APA. Additional details are provided in Chapter Four.

Pharmacy practice researchers are beginning to study the experiences of pharmacists in emerging practice roles and their involvement in prescribing and interprofessional team care.

Prescribing by Pharmacists

Much of the early research on pharmacist prescribing originates from the UK following implementation of supplementary prescribing in 2003 (Cooper et al., 2008a; Tonna et al., 2007). Several studies have explored views and experiences with supplementary prescribing, providing mostly reproducible data on barriers and facilitators of pharmacist prescribing (Cooper et al., 2008b; Dawoud et al., 2011; George et al., 2006a; Hobson & Sewell, 2006; Lloyd & Hughes, 2007; Lloyd, Parsons, & Hughes, 2010; Stewart et al., 2009; Tully et al., 2007). Since the model of independent prescribing was implemented relatively recently in the UK, fewer studies have been conducted with a focus on this aspect of the professional prescribing practice (George et al., 2006b; McCann et al., 2011; McCann et al., 2012).

Studies of pharmacists with experience as prescribers indicate support for the prescribing role. Lloyd and colleagues (Lloyd & Hughes, 2007; Lloyd et al., 2010) conducted two series of studies involving focus groups of pharmacists at two different time points: while preparing to qualify for supplemental prescribing in Northern Ireland, and two years after qualifying for prescribing. These pharmacists considered prescribing as an opportunity for professional growth and a means to become more proactive in securing a future role in patient care. A longitudinal qualitative study conducted by Dawoud et al. (2011) explored the experiences of 16 pharmacists in England following their authorization as supplementary prescribers. Pharmacists were interviewed twice, at three months and six months following their registration as supplementary prescribers. Not all pharmacists in the study had experience with a prescribing role. However, those who were actively prescribing described it to be a “good fit” with their practice and

enjoyed greater satisfaction with their roles (Dawoud et al., 2011). Those pharmacists found that physician acceptance was important for successful implementation of prescribing. They desired more independence and autonomy for the prescribing role. Stewart et al. (2009) conducted telephone interviews with eight pharmacists who were actively engaged in supplementary prescribing roles in Scotland. While they derived a sense of contribution to enhanced teamwork, the pharmacists considered prescribing as an extension of their existing role (Stewart et al., 2009). A similar observation was reported by Hobson and Sewell (2006) in England, where pharmacists viewed supplementary prescribing as legitimizing their already adopted roles. The two studies of independent prescribers in Northern Ireland led by McCann reinforced the importance of the interprofessional team. Irish pharmacists participating in these studies felt more successful in their practice when they were integrated into a team with clearly defined roles (McCann et al., 2011; McCann et al., 2012). Results from the study of Dawoud et al. (2011) suggested that supplementary prescribing improved pharmacists' integration into their teams. Maddox, Halsall, Hall, and Tully (2016) found that pharmacy and nurse independent prescribers experienced reluctance to accept responsibility due to role uncertainty and issues of perceived competency and risk associated with prescribing.

There is a growing body of research on pharmacist prescribing in Canada. Research that explores perceptions of pharmacist prescribing in Canada began to appear in the literature following approval of prescribing in Alberta. Jorgenson et al. (2011) investigated the perspectives of over 1000 pharmacists on their changing practice. Approximately 50% of the pharmacists interviewed had experience with collaborative medication therapy management and prescribing activities. Further, 55% of pharmacists indicated that they were engaged in prescribing roles prior to widespread legislated approval by provincial governments. Other

researchers have explored public views of prescribing (Perepelkin, 2011), the application process for APA in Alberta (Charrois et al., 2012), intent to apply for APA (Hutchison, Lindblad, Guirguis, Cooney, & Rodway, 2012), and adaptation of prescriptions in British Columbia (Grindrod et al., 2011). Research has been undertaken to demonstrate the benefits of pharmacist prescribing, including cost savings and improvements in patient care outcomes associated with hypertension (Tsuyuki et al., 2015), diabetes (Brown, Al Hamarneh, Tsuyuki, Nehme, & Sauriol, 2016), and minor ailments (Mansell, Bootsman, Kuntz, & Taylor, 2015).

Much of the Canadian research on pharmacists' experiences with prescribing has been conducted in Alberta due to its unique model, which includes independent prescribing. Guirguis and colleagues, including the author of the current study, studied pharmacists' perceptions of prescribing practices (Guirguis et al., 2014; Makowsky et al., 2013). Their research explored how pharmacists adopted Alberta's prescribing model with respect to adapting prescriptions, prescription renewals, prescribing in an emergency, and independent prescribing (i.e., APA). They conducted interviews with 38 pharmacists (14 with APA) and later a survey of 350 pharmacists (22 with APA) (Guirguis et al., 2017). The prescribing model was perceived as legitimizing prior practices. Pharmacists who had adopted prescribing experienced increased satisfaction and an elevated sense of professionalism. Differences in how pharmacists prescribed were associated with different practice settings. It was common for pharmacists with APA not to prescribe in primary care and hospital practice settings due to institutional policies and the presence of other prescribers on the team. Research by Heck et al. (2015) also found that while hospital pharmacists prescribed frequently, prescribing activities were performed when pharmacists were physically separate from the team, following team discussions. Relationships with physicians and interdisciplinary team dynamics influenced pharmacists' prescribing

practices; a given relationship could be both a barrier and an enabler of pharmacist prescribing (Guirguis et al., 2017; Heck et al., 2015; Makowsky et al., 2013). Guirguis et al. (2017) found that pharmacists practicing in rural areas prescribed most frequently. Questions arising from this work pointed to a need for more research to understand relationships and collaboration among pharmacists, physicians, and other health care professionals associated with the prescribing role.

To summarize, current knowledge of pharmacist prescribing supports the idea that authorization legitimizes or extends pharmacists' existing role. Pharmacist prescribing produces economic benefits and improved patient outcomes. After adding prescribing to their roles, pharmacists enjoy greater satisfaction in the workplace and an increased sense of professionalism. However, research also suggests that pharmacists are not fully engaged in prescribing due to a variety of factors, including institutional policies, co-location with other prescribers, and relationships with physicians. Research specifically investigating pharmacists' experiences with prescribing and how it is enacted is lacking. In addition, there are gaps in the literature with respect to the role of collaboration in pharmacists' prescribing.

Interprofessional Team Care

Research originating in Canada on the integration of pharmacists into medical teams is prominent in the literature. The Ontario research team led by Farrell has studied the integration of pharmacists into family medicine practices (Farrell et al., 2008, 2013). Using an ethnographic approach, the Farrell team (2013) studied the evolving roles of pharmacists as members of family health care teams. The findings suggested two main emphases to the role of the pharmacist: physician support and medication management. The researchers attributed the fact that pharmacists tended to choose one or the other of these two emphases to differences in education, beliefs, and individual pharmacist characteristics. Farrell et al. (2013) thus suggested a

potential relationship between the enactment of the pharmacist's role and the beliefs and values of the pharmacist.

Research by Dobson and colleagues (2006) concluded that actual participation in collaborative practice models by Canadian pharmacists in community practice remains low. Access to team members from other disciplines is a challenge for many pharmacists working in community pharmacies who are physically separated from other health care providers (Dobson et al., 2006). Pharmacists working to establish prescribing practices perceived this separation as a barrier to adopting new roles, as it creates a sense of isolation from other team members (Hobson, Scott, & Sutton, 2010). Other challenges included the need for electronic health records and access to shared patient health records. Other barriers included a lack of formal change in job description and/or expectations in terms of previously assigned duties for newly authorized pharmacists returning to the workplace ready to prescribe medications (Cooper et al., 2008b). In addition, pharmacists in community practice struggle to maintain other services when adopting new roles, lacking time to perform the duties associated with their new team roles (Dobson et al., 2006) and engage in patient care activities related to prescribing (Lloyd & Hughes, 2007).

Another Canadian research project led by Makowsky (2009) examined the experiences of two pharmacists assigned to family medicine teams in hospital pharmacy practice. The research team analyzed pharmacists' reflective journal entries and interview transcripts one year after adoption of their new roles. Results of this study highlighted the challenges and opportunities surrounding team integration and emphasized the importance of role clarity, continued professional development, and establishment of new work processes for successful team integration (Makowsky et al., 2009).

Many of the studies on pharmacists' changing roles involved pharmacists who were new to the prescribing or team practice roles. These studies did not aim to explore pharmacists' subjective experiences with the new roles or the development of their professional identity in the longer term. In the next section, research on professional identity is reviewed.

Professional Identity

Professional identity has captured the interest of researchers studying a variety of diverse professions in society, such as those of teachers (Beauchamp & Thomas, 2009), librarians (Hicks, 2014; Walter, 2008), police officers (Campbell, 2012), lawyers (Hussey Freeland, 2012), engineers (Hatmaker, 2012), and academics (Levin & Shaker, 2011). An individual's identity is the lens through which he or she makes sense of the world (Weick, 1995). Burr (2003) asserted that identity is comprised of many threads or elements that are woven together to influence how an individual interacts in society. Professional work can be viewed as an important thread in the fabric of identity. Scholars have defined professional identity in a number of ways. Ibarra (1999) defined it as an individual's definition of self as a member of a profession that is associated with the enactment of a professional role.

Research exploring the identity of pharmacists and the pharmacy profession is beginning to emerge. Elvey, Hassell, and Hall (2013) identified nine distinct identities in their study of pharmacists in England, including scientist, medicines adviser, clinical practitioner, social carer, medicines maker, medicines supplier, manager, business person, and unremarkable character. While the scientist identity was the strongest, many identities co-existed and/or overlapped, emphasizing both ambiguity and flexibility in these roles. Austin (2007) explored identity reformation of foreign-trained pharmacists in Ontario, Canada. Ninkhate (2015) explored how

new pharmacy graduates in Thailand constructed their identities in relation to others as they transitioned from student to practice roles.

A review of studies on professional identity, roles, and change for health care professionals is offered in the following sections. The connection between professional identity and roles is explored first.

Professional identity and roles. Professional identity represents how professionals see themselves in relation to their professional roles: who they are and how they should act (Chreim, Williams, & Hinings, 2007; Pratt, Rockmann, & Kaufmann, 2006). In a longitudinal study of medical interns, Pratt, Rockmann, and Kaufmann (2006) emphasized the relationship between understanding enactment of a professional role and understanding one's own professional identity. Chreim, Williams, and Hinings (2007) described the relationship between professional roles and identity as intimately related. This relationship was echoed by Simpson and Carroll (2008), who argued that roles represent a social prescription for behaviour, whereas identity is an internal self-understanding of the professional role. They further asserted that "roles never become identities; rather, they mediate the meaning-making processes of identity construction" (p. 43). Ibarra (1999) referred to the iterative nature of changing roles and identity. In this study, the relationship between enacting roles and making sense of roles (identity) is an important construct.

Professional identity and change. Changes in professional role are associated with development and evolution of professional practices and professional identity. In their research on primary health care in Canada, Reay, Goodrick, Casebeer, and Hinings (2013) found that actual behavioural change of health care providers was integral to the process of legitimizing new practices. Chreim et al. (2007) studied physicians who self-initiated a role change in a

Canadian health clinic. Their research demonstrated that the workplace influenced identity construction both directly (through provision of materials to assist these professionals in adopting new roles) and indirectly (through organizational changes that supported the role). Further, they found that professional identity did not change quickly or easily. In addition, agency, or the choice and power to adopt a new role, was thought to facilitate the process of changing one's own professional identity. A study involving 63 pharmacists adopting new roles within a multidisciplinary primary health team in Canada (Pottie et al., 2009) offered insights into pharmacists' intellectual and emotional experiences associated with their changing roles. Pharmacists' professional identities evolved in relation to valued role models, emerging practice opportunities, and enactment of their new roles in patient care.

Changes in professional roles occur over time. In a study of the nursing profession, Goodrick and Reay (2010) found that changes over time did not necessitate a break from past identity, but instead were facilitated through acknowledgement of continuity of both old and new elements of professional identity. The existence of multiple identities for nurses was highlighted. Work by Pratt et al. (2006) supported this finding, suggesting that identity change is incremental and functions to enrich an already existing identity. Dall'Alba (2009) acknowledged that there is value in past experiences, emphasizing that experiences provide resources for the present and openings for future change. Reay, Goodrick, Waldorff and Casebeer (2017) studied a planned initiative in a primary health care setting to shift the way physicians viewed themselves, from autonomous experts to head of the team. The change in physicians' collective professional identity was associated with information, that is, "being informed" rather than having autonomous responsibility for patient care decisions. Physicians' collective role identity was co-

created through a process of reinterpretation of institutional logics and interactions with others within a highly resilient institution.

Identity of professional groups. The identity of professional groups has also been a focus of considerable research. Some research links the development of professional identity of an individual with that of the profession. In a study on the professional identity of Scottish physicians, Hotho (2008) described a recursive relationship between the professional identity of the individual physician and the identity of the profession in the context of change. This research drew attention to the notion that individual professionals may not be passive recipients of change, but rather active drivers of change. Greenwood, Suddaby, and Hinings (2002) acknowledged that professional associations reflect change that has already occurred in practice and enable the production of shared meaning and understanding among members. Professional identity has also been viewed as neither solely individual nor purely social, but as relating to both realms (Wenger, 1998).

Influences on professional identity. Changes in work role are among the many contributors to changes in professional identity. Professional identity can be viewed as fluid, evolving, and socially constructed (Simpson & Carroll, 2008). However, the process by which identity formation evolves has been less often studied (Ibarra, 1999). Austin (2007) examined the professional identity of foreign-trained pharmacists in Ontario and found that changes in professional identity occurred in response to professional culture shock. Rapport, Doel, and Jerzembek (2009) observed the relationship between the work environment in a Welsh community pharmacy and the professional identity of pharmacists. Their innovative study design combined photographic and biographic methods. Findings of this study reinforced the fact that

the work environment did not support new patient care roles. Competing demands of new and long-established roles led to an identity crisis for these Welsh pharmacists.

In the study by Chreim et al. (2007), personal life changes and dissatisfaction among physicians motivated the search for more meaningful roles and changes in professional identity. Other researchers have shown that professional identity is influenced by individual and institutional factors (Chreim et al., 2007; Ibarra, 1999), alignment between work and personal values (Farrell et al., 2013; Pratt et al., 2006; Trede, Macklin, & Bridges, 2012), interactions with other professionals (Ibarra, 1999; Pratt et al., 2006; Pottie et al., 2006; Reay et al., 2017), professional organizations (Greenwood et al., 2002; Hotho, 2008), and past experiences (Weick, 1995; Weick, Sutcliffe, & Obstfeld, 2005).

Professional identity has been linked to education. Professionals begin to develop their own professional role identity through educational or training processes (e.g., Ibarra, 1999; Pratt et al., 2006). A relationship between the ongoing development of professional identity and learning has been observed. Wenger (1998) considers learning as "an experience of identity" (p. 215) that "changes who we are by changing our ability to participate, to belong, to negotiate meaning" (p. 226). In a review of professional identity in higher education, professional identity was described as "…a way of being and a lens to evaluate, learn and make sense of practice" (Trede et al., 2012). Educators acknowledge the importance of early development of professional identity in professional education programs (Bleakley, 2012; Frenk et al., 2010). Jarvis-Selinger, Pratt, and Regehr (2012) addressed the current focus on competency-based approaches in medical training, asserting that education must "include a focus on *being* rather than exclusively a focus on *doing*" (p. 1185). While students of pharmacy begin to develop professional identity in their pre-registration years (Hind et al., 2003), Waterfield (2011) emphasized the need to

address professional identity explicitly in pharmacy education programs. Pharmacy education is thus explored in the next section.

Professional Pharmacy Education

Although changes in the practice environment have laid the groundwork for significant role transformation for professional pharmacists, the sense lingers that commensurate changes in pharmacy education are needed (Rosenthal, Austin, & Tsuyuki, 2010). Duncan-Hewitt and Austin (2005) observed that "after several decades of tumultuous change within the profession and its institutions, many are struggling with issues of identity, meaning, information overload, attaining and expanding expertise, workload, division of labor, professionalism, and accountability" (p. 370). In a review of 15 empirical studies, complexities of prescribing practice for medical students were deemed as not adequately addressed in curriculum (McLellan, Tully & Dornan, 2012). Pharmacy education addresses some of these issues. Educational approaches are being implemented that support pharmacists' development throughout their professional careers, enabling them to meet society's needs for professional services and to adopt new roles in practice. Curriculum change in pharmacy programs, continuing professional development, and alternative approaches to professional education reflect these approaches.

Curriculum change. Professional education required to practice pharmacy in Alberta is currently the Bachelor of Pharmacy degree, the first professional degree. Efforts to change pharmacy curriculum figure prominently in pharmacy education literature. The introduction of a clinical doctorate replacing a bachelor-level science degree in pharmacy represented a major curricular change in pharmacy education (Boyden, 2006). This change was initiated at one school in the United States in 1950 and is now complete throughout the U.S. Six Canadian pharmacy schools, the University of British Columbia, University of Alberta, University of

Waterloo, University of Toronto, Laval University, and University of Montreal, recently introduced entry-to-practice programs (Austin & Ensom, 2008; Koleba, Marin, & Jewesson, 2006). The University of Alberta and University of Toronto also offer a Doctor of Pharmacy program for Bachelor of Pharmacy degree graduates and practitioners. All ten Canadian schools of pharmacy have committed to this change by 2020 (Association of Faculties of Pharmacy of Canada & Association of Deans of Pharmacy of Canada, 2010).

Another noteworthy change in pharmacy education is the renewed emphasis on clinical experiential education. Early in the last century, pharmacy programs in North America started as apprenticeships, then moved to universities that offered Bachelor of Science degrees (Boyden, 2006). In recent years, many pharmacy programs have been modified to include more experiential learning, some even lengthening their programs by one year to accommodate this element of their programs. Experiential learning impacts student pharmacists' ability to adopt new professional roles, develop as individuals, and connect with society (Fenwick, 2003; Ralph, Walker, & Wimmer, 2008).

Other curricular enhancements include interprofessional education (Waterfield, 2011), use of technology (Blouin et al., 2009), and changes to accreditation standards (Svensson et al., 2012). Some of the most appealing possibilities, such as encouraging discovery through reducing time spent in the classroom in favour of practical experience, may be realized through carefully planned curricula that allow space for students to learn, experience practice, construct knowledge, and engage critically with society. Engaging in patient care activities early in training has also been suggested. Pratt et al. (2006) suggest that offering physicians more professionally relevant tasks early in their residency training may accelerate professional identity development. This may also be true for pharmacy students. Providing opportunities for students

to engage in activities in social contexts enhances student understanding of professional practice (Kieser, Dall'Alba, & Livingstone, 2009). Curriculum changes in these areas will support pharmacists' adoption of new roles as prescribers and team collaborators.

Continuing professional development. Continuing professional development is the area in which changes in pharmacy education aimed at supporting prescribing roles have been most visible. Professionals continually learn and develop their professional identities over the span of their professional careers (Dall'Alba, 2009). Professional development opportunities allow pharmacists to develop their professional skills and facilitate adoption of new roles. In a national survey of practising pharmacists, Jorgenson et al. (2011) reported that Canadian pharmacists expressed a need for additional education and training to support their new prescribing roles. Pharmacists adopting new roles in collaborative practices also expressed a need for education about their integration onto the team and ongoing personal development (Makowsky et al., 2009).

Continuing professional development programs in pharmacy have evolved along a similar trajectory to that of professional education programs in universities. Many learning strategies are used in combination in the continuing professional development classroom and in implementation of distance, experiential, and interprofessional education (Schindel, Kehrer, Yuksel, & Hughes, 2012). A focus on mentorship in practice (Farrell, Dolovich, Austin, & Sellors, 2010) and developing communities of practice (Austin & Duncan-Hewitt, 2005) is fostered in these programs. Specialized university-based prescribing courses combining classroom and distance learning with a mandatory experiential component are required for pharmacists in the UK to qualify for supplementary or independent prescribing authorization (Cooper et al., 2008c; George et al., 2007; George et al., 2008; Tann, Blenkinsopp, Grime, &

Evans, 2010). Stewart, MacLure, and George (2012) suggested that preparation for prescribing could be achieved within the entry-to-practice degree program. This is the position of Canadian pharmacy regulators, who did not mandate educational programs when the new role of prescribing was introduced in Canada (Yuksel et al., 2008). However, innovative continuing professional development programs are also able to support pharmacists with various aspects of the prescribing role (Bungard, Schindel, Garg, & Brocklebank, 2012; Hughes & Schindel, 2010) and integration on teams (Farrell et al., 2010) in addition to degree programs.

Learning at work plays an important role in professional identity development. Billett (2010) asserted that learning throughout working life for professionals "includes reshaping their sense of self through the agentic ongoing and transformative practices of seeking the ontological security of 'being themselves'" (p. 53). Salling-Olesen (2001) studied professionals' subjective engagement in their work and observed a strong link between professional identity development and learning in practice. Unfortunately, most continuing professional education developed for pharmacists has not focused sufficiently on helping pharmacists adjust to new roles, nor has it addressed the ongoing development of professional identity or learning at work. In their study of non-medical prescribers, including nurses, physiotherapists, and pharmacists in the UK, Weglicki, Reynold, and Rivers (2015) found that many practitioners felt isolated in their learning. Confidence in their prescribing role was more likely to develop in an environment of personal interaction that included peer support and mentoring. Tann et al. (2010) found learning at work instrumental to role adoption, including the prescribing role. A shift to workplace learning for pharmacists working in collaborative or team-based practices in Ontario was reported by Austin, Marini, Glover, and Croteau (2005). Noble and Billett (2017) studied

physicians learning to prescribe in collaboration with pharmacists. Social interactions and engagement of both learning partners increased interdependence and reciprocity in learning.

Pharmacists seek programs to gain additional training and to specialize in patient care practice (Penm, MacKinnon, Jorgenson, Ying, & Smith, 2016). Formal non-degree professional education programs, such as hospital pharmacy residency programs, provide work-based experiential training in a variety of specialty areas, such as cardiology, internal medicine, and pediatrics, in a given health facility (Austin & Ensom, 2008). Residencies are not mandatory for pharmacists. However, there is ongoing debate among hospital pharmacists as to whether or not residency programs should be mandatory for them (Mills & Keller, 2015). Residencies are typically full-time programs completed over one to two years. Hospital pharmacy residencies expose pharmacy residents to a variety of patient care experiences, mentors, and specialties. This is in contrast to continuing professional development education courses and certificate programs that focus on a specific area of practice (e.g., menopause) or patient care skill (e.g., patient assessment). New residency programs are becoming available in non-hospital practice settings such as community pharmacies and primary care as well (Schweiss, Westberg, Moon, & Sorensen, 2017).

Alternative approaches. Alternative approaches toward professional education challenge educators to rethink the underlying philosophy of pharmacy education and contemplate ways in which pharmacy education can support professional roles (Duncan-Hewitt & Austin, 2005; Waterfield, 2011). A greater emphasis on general education, in contrast to a traditional focus on sciences, is thought to foster problem-solving, critical thinking, communication skills, leadership, professionalism, and lifelong learning (Blouin et al., 2009; Cohen et al., 2004). Smith et al. (2007) observed that assessment methods in pharmacy programs

favour the measurement of acquired knowledge over its use or construction. Waterfield (2011) suggested that efforts toward curricular change consider the "epistemology of practice" (p. 244) as the starting point for educational change in pharmacy. He stated that

> It is important that educators start to think in deeper terms about the nature of pharmacy knowledge and how this can be identified and utilised in practice. In particular increased recognition for the professional identity of the pharmacist needs to be made more explicit. (p. 244)

More recently, researchers have explored ways to support identity formation of student pharmacists in entry-to-practice pharmacy programs (Mylrea, Gupta, & Glass, 2017; Noble et al., 2014; Van Huyssteen & Bheekie, 2015).

The challenge ahead for educators is much greater than simply preparing professionals to fulfill a specific role in society. Part of the challenge involves preparing students to deal with complexity and ambiguity in practice (Dall'Alba, 2009). Dall'Alba argued for consideration of both epistemological and ontological aspects of professional education in order to go beyond the acquisition of knowledge and skills. Professional education would thus be perceived as a process of becoming that involves integration of knowing, acting, and being. The professional education system as a community of practitioners (Wenger, 1998) has been promoted by educational scholars as a possible model of pharmacy education (Duncan-Hewitt & Austin, 2005). Such a community may facilitate development of alternative educational approaches (Frenk et al., 2010), embedding knowledge within practice (Dall'Alba, 2009) and providing a site to nurture development of professional identity (Duncan-Hewitt & Austin, 2005).

As outlined in the introduction to this chapter, this research study explores how pharmacists enact and make sense of their prescribing role and develop their professional

identities. Up to this point, this review of the literature presented research addressing two areas of this interdisciplinary research: pharmacy practice and education. The focus now turns to studies on the discipline of information behaviour, which is followed by a synthesis of key concepts arising from this review.

Information Behaviour

Information behaviour research explores how individuals experience information. The field of research known as information behaviour is a subdiscipline of library and information sciences (LIS) with roots in communication and information studies (Case & Given, 2016). Information behaviour has been broadly defined as a range of human experiences, including how individuals "seek, manage, give and use information both purposefully and passively, in the varied roles that comprise their everyday lives" (Fisher & Julien, 2009, p. 317). It focuses on individuals' information needs and behaviours, including seeking and using information. This focus was developed following a significant time in the field marked by Dervin and Nilan's (1986) call for a paradigm shift from a traditional view that information is objective to an alternative view that information is constructed by human beings. In a comprehensive survey of the field, Case and Given (2016) traced the evolution of information behaviour research from an emphasis on systems and institutional sources of information to a focus on how people encounter information and make sense of their worlds, which involves making decisions about the relevance of information and avoiding unwanted information. Information behaviour research aims for a complex understanding of the actions and behaviours of people who use information.

Information behaviour is an umbrella term encompassing the many ways individuals work with information in their lives (Case & Given, 2016). It does not represent an immediate task; rather it may spark curiosity or an idea in response to information encountered in everyday

work. The word "information" itself has been defined in very broad terms. In this study, information is "any *difference* you perceive, in your environment or within yourself" (Case & Given, 2016, p. 6). Information may be further categorized into three types: objective, subjective, and sense-making (Case & Given, 2016). This study is concerned with the sense-making category, described by Case and Given and posited by Dervin as "reflect[ing] the procedures and behaviors that allow us to 'move' between external and internal information to understand the world, and usually to act on that understanding as well" (p. 59). Other scholars in the field emphasize social and affective aspects of information. Savolainen (2009) described information as "a personal and situation-bound construct which combines cognitive and affective elements" (p. 189).

Information behaviour research addresses a wide range of human experiences, including the role of information in social relationships. Olsson (2009) noted that research on information behaviour "explores the relationship between people and information" (p. 23). Information sharing is a broad category of information behaviour research associated with information in work environments and collaboration with others (Case & Given, 2016). Pilerot (2012) conceptualized information sharing as having three interrelated areas of focus: (1) the information shared, (2) those sharing information and their social relations, and (3) the location where sharing takes place. In Willson's (2016) study of individuals transitioning from doctoral students to academics, information sharing influenced development of collegial relationships. Talja (2002) described four types of information sharing associated with academic work: (1) strategic to maximize efficiency, (2) social to form relationships, (3) paradigmatic to create novel approaches across disciplines, and (4) directive to provide information. Pilerot and Limberg (2011) found that trust was a key element for successful information sharing among design

researchers. Research in the field has expanded to address a wide range of issues pertaining to human experiences related to academic, professional, and everyday life. Research on identity has also been a focus of information behaviour researchers.

Information behaviour and identity. Research from the LIS field is of particular interest to this study. The relationship between identity and information use has been observed through the lens of information behaviour. Individual experiences with information lead to learning about identity, which enables identity formation (Given, 2000; Lloyd, 2009). Sundin and Hedman (2005) related information behaviour to identity, noting that "occupational identities are… not conceived as stable essences within individuals. Rather, they serve as arenas for a diversity of, sometimes conflicting, approaches to one single phenomenon" (p. 295).

Information behaviour researchers have applied various approaches and theoretical concepts to the study of identity in various contexts (Fisher, Erdelez, & McKechnie, 2008). Given (2000, 2002) studied the identity formation and information behaviours of 25 mature undergraduate students at a Canadian university through the lens of social positioning theory. Social positioning and imposition of stereotypes shaped information and educational practices in these individuals (Given, 2002). LIS researchers have applied the concept of identity and social positioning in the contexts of research on midwifery practice (McKenzie, 2004), nursing professional practice and identity (Johannisson & Sundin, 2007), information behaviours of health providers and women seeking to understand the menopause transition (Genuis, 2012), and pharmacists' prescribing roles as depicted through media coverage in Canadian newspapers (Schindel & Given, 2013). Bonner and Lloyd (2011) studied the identity of nurses in a renal specialty practice in Australia, drawing on the theories of communicative action and practice. They describe a relationship between information and practice, observing that nurses drew on

multiple sources of information that played a role in shaping nursing identity. Lloyd (2010) describes a process of meaning-making as "a negotiation between people in a particular setting, leading to production and reproduction of identity and ways of interacting" (p. 251). As the information behaviour field matures and interdisciplinarity increases, other professionals such as those in the health sciences have become involved in information behaviour research (Julien, Pecoskie, & Reed, 2011).

Health information behaviour. Health information behaviour has attracted much attention due to its importance in society and because of recent changes in health care expectations, delivery, and policy (Case & Given, 2016). Health topics are of interest to consumers and patients who seek information from various sources and in various ways. Information behaviour research has focused on such diverse areas as access to information in rural areas (Harris, Wathen, & Fear, 2006) and the kind of information sought by people with multiple sclerosis (Baker, 1996), endometriosis (Neal & McKenzie, 2011), menopause (Genuis, 2006, 2012), and breast cancer (Williamson, 2005). Research in this area also addresses the work of health professionals. In a study analyzing information behaviour research published between 1999 and 2008, Julien, Pecoskie, and Reed (2011) reported that professionals made up the second-highest proportion of user groups represented in the publications. A review of relevant information behaviour research related to the health professions follows.

Information behaviour research associated with pharmacy practice is emerging in the literature. Adams (2001) interviewed 11 pharmacists working in a variety of contexts in the United States to identify their information-seeking behaviours with an emphasis on recent changes in education. The relevance of information with respect to pharmacists' changing roles and identities was noted. In addition, the role of the pharmacist as an information specialist was

highlighted (Adams, 2001). In response to the proliferation of health-related information in society, Adams (2001) drew attention to a potential synergy between librarians and pharmacists as information specialists. Two studies using semi-structured questionnaires explored the information-seeking behaviour and library services use observed in hospital and community pharmacists in Greece (Kostagiolas, Aggelopoulou, & Niakas, 2011; Kostagiolas, Bairaktaris, & Niakas, 2010). A Canadian study of information behaviours of pharmaceutical policymakers (Greyson, Cunningham, & Morgan, 2012) compared its findings to the General Model of Information Seeking of Professionals proposed by Leckie, Pettigrew, and Sylvain (1996).

Johannisson and Sundin (2007) studied the information practices of nurses in Sweden and the role of information in their professional lives. Their study drew attention to two dominant discourses of nursing practice: a science-oriented medical discourse and a holistic nursing discourse. The findings illustrated how these discourses were viewed as important information sources and how the nurses used them to promote their own interests and ideas of what the nursing profession should be.

Genuis (2012) interviewed 28 Canadian women seeking information about the menopause transition and a sample of health care professionals working in menopause clinics to examine how women made sense of uncertain information. The process of integrating information from formal and informal sources enabled sense-making and knowledge construction. This research pointed to the need to explore how health professionals experience and make sense of information and their role in communicating information to patients.

Lloyd (2009) studied how novice and experienced emergency medical practitioners in Australia used information in the process of learning about their work and practice. A constructivist grounded theory approach (Charmaz, 2006) was used to analyze interviews and

observations before and after a two-part professional training course that involved both classroom and experiential learning in the field. Social sources of information, such as stories told by coworkers and educators, provided novice practitioners with access to information about professional culture and practices. Lloyd's (2009) work with this professional group linked information, education, relationships, and storytelling with professional identity formation. The idea of collective identity was highlighted:

> The close working relationships formed on the road, allows practitioners to engage in activities such as storytelling. As a source of tacit knowledge, hearing stories is important to new practitioners because this provides information about day-to-day practices and professional life. This helps to draw newly commissioned practitioners into the stories of the collective and facilitates engagement with the collective professional identity. (p. 407)

This study brings together the fields of pharmacy practice, education, and information behaviour in a unique way to explore how pharmacists enact and make sense of their patient care roles as prescribers. Pharmacy is an information-intensive profession. Information behaviour, an umbrella concept (Savolainen, 2007), as previously mentioned, provides a lens through which we can view how pharmacists experience the prescribing role and how they make sense of it.

Summary

This chapter clarified the concepts central to the research questions in this study and provided a review of the literature related to these concepts. The literature review included a historical overview of the changing role of pharmacists, beginning with the implementation of a supplementary prescribing model in the UK. The progressive and unique practice environment for pharmacist prescribing in Alberta was then described. This environment provides an ideal context in which to study how pharmacists make meaning of and enact their patient care roles as

prescribers. Pharmacy research on new prescribing roles and involvement in interprofessional team care was reviewed. The literature pertaining to professional identity, specifically professional identity as it pertains to pharmacists' roles, was also reviewed. This was followed by a review of pharmacy education that highlighted the relationship between learning and identity development. In the review of information behaviour research, the concepts of roles and professional identity were highlighted.

While research on pharmacists prescribing has emerged in recent years, gaps remain related to our understanding of pharmacists' prescribing role. The role of information in pharmacists' experiences with prescribing has not yet been studied. Exploring how pharmacists enact the prescribing role will improve our understanding of how these professionals make sense of their changing professional roles. In this study, making sense of roles relates to professional identity. In the next chapter, the conceptual framework and methodology used throughout the study are presented.

Chapter Three: Research Design

This study explores pharmacists' experiences with prescribing in the context of the unique practice environment in Alberta. The goal was to improve understanding of their new role and the associated evolving professional identity. Building on the research reviewed in Chapter Two, this chapter outlines the conceptual framework and rationale for the current study with reference to approaches to previous research that explored pharmacists' roles. Next, a description is offered of the ontological, epistemological, and methodological assumptions underpinning the theoretical framework of this study. In addition, the methods are outlined, including descriptions of participant selection, sample size, and the data collection and analysis processes. Finally, the chapter concludes with mention of ethical considerations, measures taken to enhance the degree of trustworthiness within the interpretations, limitations, and delimitations of the study, and the role of the researcher.

Conceptual Framework

To study how pharmacists make meaning of and enact their patient care roles as prescribers, I identified three areas of interest to formulate the conceptual framework for this research: pharmacy practice, professional education, and information behaviour. Pharmacy practice in Alberta associated with the prescribing role provides context for this research. Education plays a large role in professions and is vital to the process of becoming a professional and to development of professional identity. The exploration of professional identity fits naturally with a focus on the prescribing role in pharmacy. Role and identity have been described as two sides of the same coin; role relates to observable actions, and identity relates to the subjective understanding of roles (Chreim et al., 2007). Professional identity can be considered

the product of making sense of a role. The field of information behaviour serves as a conduit to construct new meaning concerning pharmacist patient care roles.

As this conceptual framework was taking shape, the interconnectedness among the areas in focus in this interdisciplinary research became evident. To address the main research question while looking through the lens of information behaviour, information related to pharmacists learning about their prescribing role (professional education), enacting that role (pharmacy practice), and making sense of that role (information behaviour) is discussed. The concepts brought together in this framework are so strongly related and intertwined, it is difficult to imagine them separately. This conceptual framework represented a starting point for the research. As new ideas emerged, understanding of various concepts within the established framework continued to evolve and mature.

Context for this Research

In this study, I sought to understand how pharmacists make sense of the prescribing role as seen through the lens of information behaviour. This approach is unprecedented in research on pharmacy practice. Thus, this study contributes new knowledge related to pharmacist prescribing. Research on pharmacist prescribing has utilized a range of approaches, including collection of qualitative data (i.e., focus groups, semi-structured interviews, and observation) and quantitative data (i.e., questionnaires) using several different experimental designs (Chowdhury & Guirguis, 2015; Cooper, 2008a). Since 2007, the number of qualitative research studies by pharmacy scholars in the UK has increased compared to the number of quantitative studies focusing on pharmacists' experiences with prescribing (Cooper, 2008a). Qualitative research methods such as interviews and focus groups were primarily used (Dawoud et al., 2011; Lloyd et al., 2010; Stewart et al., 2009). However, a review of Canadian research reported most studies

used a quantitative approach (Chowdhury & Guirguis, 2015). As one scholar noted, "a robust body of pharmacy practice research evidence still has considerable capacity for further development" (Harding & Taylor, 2006, p. 231). Suggestions for pharmacy research included utilizing qualitative methods, addressing issues of theory, and building connections with other disciplines to inject perspectives from outside the field (Bissell & Traulsen, 2004; Harding & Taylor, 2006). This interdisciplinary qualitative research study contributes significantly to the literature on pharmacy practice. In the course of this study, pharmacists' experiences with the prescribing role were explored and several theoretical issues were addressed.

Theoretical Framework

The theoretical framework for this study arises from the philosophical assumptions that inform the methodology. The choice of methods used to address the research questions is very important to the design of any study. Crotty (1998) described four major elements to consider in designing a study: methods, methodology, theoretical perspective, and epistemology. Accordingly, these elements make up the framework for this research and are depicted in Figure 3.1. They are discussed in the sections that follow.

Constructionism

The epistemological (i.e., how knowledge is understood) and ontological (i.e., the nature of being) stances for this research align with those of social constructionism. Crotty (1998) stated that social constructionism "is the view that all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interactions between human beings and their world, and developed and transmitted within an essentially social context" (p. 42). Therefore, in a social constructionist framework, ontological and epistemological issues merge together (Crotty, 1998). Social constructionism emphasizes that

individuals construct knowledge and meaning as they engage with the world they are interpreting through relationships, language, and social processes (Burr, 2003; Crotty, 1998; Gergen, 2009). It is through this engagement that understanding is born. Central tenets of social constructionism are as follows: there is no one true interpretation of reality; knowledge and meaning are constructed, not created, through relationships; multiple interpretations are possible; and language plays a role in creating meaning (Burr, 2003; Gergen & Gergen, 2008). Crotty (1998) asserted that a constructionist approach to research invites a "radical spirit of openness to its potential for new or richer meaning. It is an invitation to reinterpretation" (p. 51).

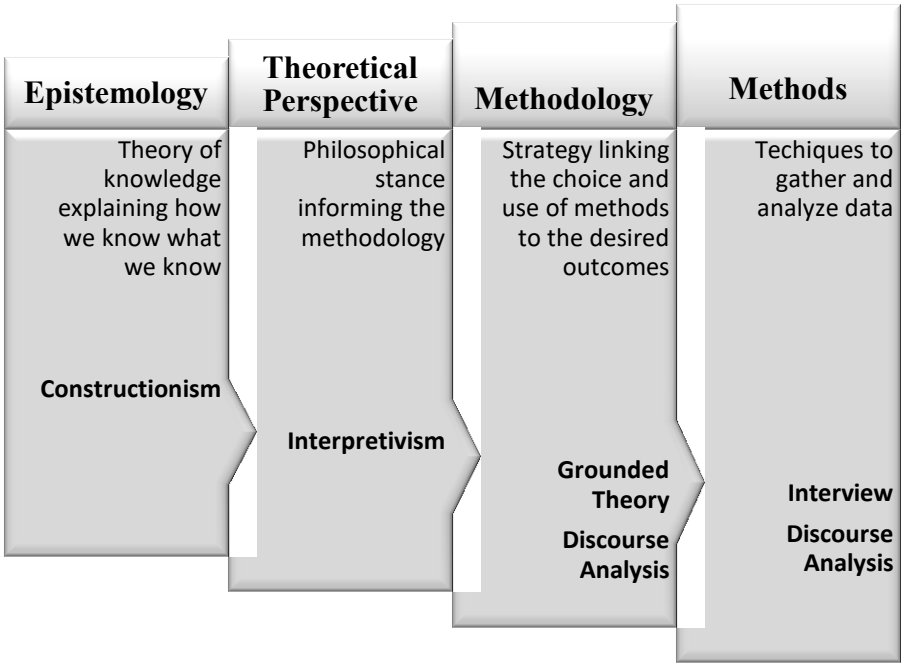


Figure 3.1. Four elements of research utilized in this study (adapted from Crotty, 1998, p. 4).

Interpretivism

The theoretical perspective in the framework of a research study relates to the assumptions underlying its methodology. It provides context for the methods used by the researcher. In this study, the theoretical perspective of interpretivism was useful in achieving the study goals, including exploring how pharmacists enact and make sense of their patient care roles as prescribers. Interpretivism is an epistemological framework that was conceived in opposition to causal explanations of society. Causality is more often associated with a positivistic understanding of human and social reality (Crotty, 1998). While positivistic research is characterized by detached observation, the primary goal of interpretive research is to make meaning, which entails a focus on "sensemaking, description, and detail" (Bhattacharya, 2008, p. 465). The roots of interpretivism can be found in the German concept of Verstehen*, or interpretive understanding* (Bhattacharya, 2008; Crotty, 1998; Weinberg, 2008). Interpretivist research focuses on the meanings attributed to practices, interactions, events, people, and artifacts. These meanings are co-constructed through analysis of conversations and texts. Thus, interpretivist researchers become involved with the study community "through interaction among participants and between the researcher and the participants" (Schensul, 2008).

Methodology and Methods

The methodological approach for this qualitative study prioritizes illumination of the process of how new knowledge is constructed. No strictly prescribed methodological approaches are necessary in qualitative research (Denzin & Lincoln, 2011). Qualitative research methodologies (grounded theory and discourse analysis) were chosen for this study, as they provide "a set of interpretive, material practices that make the world visible… [to] study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the

meanings people bring to them" (Denzin & Lincoln, 2011, p. 3). Use of these methodologies together facilitates exploration of the construction of identity of both individual pharmacists and the profession as a whole in the context of professional change.

Discourse analysis. Discourse analysis is generally described as an approach to studying the use of language, its role in constructing meaning, and its relationship to context (Potter, 2008). This methodology is appropriate because of the central role of language in constructing meaning and influencing actions of individuals and institutions (Burr, 2003; Gee, 2011; McKenzie, 2005; Nikander, 2008). Language allows individuals to formulate connections between speaking, acting, and being (Gee, 2011). A social constructionist perspective emphasizes discourse "as the vehicle through which the self and the world are articulated… different discourses enable different versions of selves and reality to be built" (Tuominen, Talja, & Savolainen, 2002, p. 273). Discourses represent "a set of meanings, metaphors, representations, images, stories, statements and so on that in some way together produce a particular version of events" (Burr, 2003, p. 48). Texts are the concrete representation of discourses. Documents such as legal agreements, professional reports, media reports, recorded spoken words, symbols, interview transcripts, and images all constitute forms of text that make up a discourse. The context from which these texts originate or in which they arise must be considered. Discourse analysis is not only concerned with language, but also with the relationships among discourse, text, and context.

Various approaches to discourse analysis have been used. Some researchers have focused on the uses of language, while others have focused on its structure (Gee, 2011). Distinct fields of discourse analysis include critical discourse analysis, Foucaudian discourse analysis, and discursive psychology (Potter, 2008). The approach to discourse analysis in study is based on the

work of Potter and Wetherell (1987), who refer to the study of language use in social contexts. This approach is used in research in many fields of study, including education, communications, sociology, social psychology, and philosophy (Potter, 2008). In this study, I focus on language, "the way in which talk and texts are used to produce versions of events that can sustain particular practices" (Potter, 2008, p. 219).

A discourse analysis of professional documents representing pharmacist prescribing was conducted. These documents included texts that shed light on or provided information about pharmacists' understanding of prescribing practices. The discourse analysis approach was chosen because of its potential to facilitate understanding of the relationship between information behaviour, professional practice, and professional identity, both individually and on the professional level (Greenwood et al., 2002; Hotho, 2008; Sudin & Hedman, 2005).

Grounded theory. Grounded theory was introduced by sociologists Glaser and Strauss in the 1960s as part of their collaborative research in health care. Since Glaser and Strauss published their methodological approach in *The Discovery of Grounded Theory* in 1967, grounded theory has become the most influential and widely used approach by researchers whose aim is to generate rather than verify theory (Charmaz, 2006). Grounded theory is a strategy of systematic comparative analysis leading to the discovery of theory from empirical data, or "theory grounded in data" (Glaser & Strauss, 1967). Hallmarks of grounded theory practice include: (1) simultaneous data collection and analysis, (2) construction of analytic codes and categories from the data instead of formation of pre-determined hypotheses, (3) constant comparison of data through each stage of analysis, (4) progressive development of theory during each stage of the project, (5) memo writing to define, elaborate, and relate categories, (6)

sampling aimed at theory construction instead of representation, and (7) a literature review following the analysis (Charmaz, 2006; Glaser & Strauss, 1967).

Following publication of *The Discovery of Grounded Theory*, Glaser and Strauss's methodological approach has continued to evolve through various approaches, for example those of Glaser (1978), Strauss and Corbin (1990), Clarke (2005), and Charmaz (2000, 2006). Some differences relate to analytical methods (Apramian, Cristancho, Watling, & Lingard, 2017; Walker & Myrick, 2006) and positioning of the researcher (Mills, Bonner, & Francis, 2006). The Charmazian (2006) approach, rooted in the interpretive tradition, informed the framework for this research. Constructivist grounded theory was selected for its systematic, flexible, and comparative approach to inductive qualitative research (Bryant & Charmaz, 2007; Charmaz, 2006). Constructivist grounded theory "places priority on the phenomena of study and sees both data and analysis as created from shared experiences and relationships with participants and other sources of data (Charmaz, 2006, p. 130). This approach is distinguished from the classic grounded theory of Glaser and Strauss in that Charmaz (2006) believes that theories are not discovered, but constructed "through our past and present involvements and interaction with people, perspectives, and research practices" (p. 10). Further, this approach acknowledges the active role of the researcher and the research context in the research process. The influence of prior knowledge and existing literature is also considered in research based on constructivist grounded theory (Charmaz & Bryant, 2008).

Studies based on grounded theory have brought significant attention to and changed the status of qualitative research in many areas, including the health professions, LIS, nursing, pharmacy, and medical education (Lloyd, 2009; McKnight, 2007; Mills, Bonner, & Francis, 2006; Nørgaard, Morgall, & Bissell, 2000; Watling & Lingard, 2012). It is fitting that a grounded

theory approach was applied in this study of pharmacists' role and identity, as pharmacy is a field that encompasses a wide range of research areas, from basic science to pharmacy practice.

Study Phases

This study was conducted in two intersecting phases combining two methods of data collection and analysis: discourse analysis and semi-structured interview. The first phase involved analysis of professional documents on pharmacist prescribing created by the Alberta College of Pharmacists (ACP) (e.g., applications for prescribing authorization) in addition to documents from the Canadian Society of Hospital Pharmacists and Canadian Pharmacists Association describing pharmacist prescribing in Alberta and Canada and documents provided or suggested by the study participants (e.g., prescribing portfolios). The second phase involved exploration of perspectives of individual pharmacists who have adopted pharmacist prescribing in their practices through analysis of data collected through semi-structured interviews. In these interviews, information about the history of the study participants was obtained to gain insight into their experiences in enacting the prescribing role. This method permitted the study participants to share aspects of their life stories. Both past experiences and storytelling are considered integral to making sense of new roles and development of professional identity (Chreim et al., 2007; Lloyd, 2009; Weick, 1995, 2005). Further, the interview method has been shown to foster construction of knowledge and meaning (Holstein & Gubrium, 1995). Qualitative research methods were chosen for this study because of their suitability for exploration of the research question regarding enacting roles and identity development. Details of both phases of the study are presented in the following sections.

Phase one: Discourse analysis of professional representations of prescribing. The first phase of the study explored pharmacist prescribing through an analysis of professional

prescribing documentation. The discourse analytic approach used in this phase draws on the work of Potter and Wetherell (1987) and is depicted in Figure 3.2. Potter and Wetherell (1987) stated that "there is no method to discourse analysis" (p. 175); the framework it offers is a springboard rather than a rigid research protocol. This framework included the following stages: document collection, analysis, and validation.

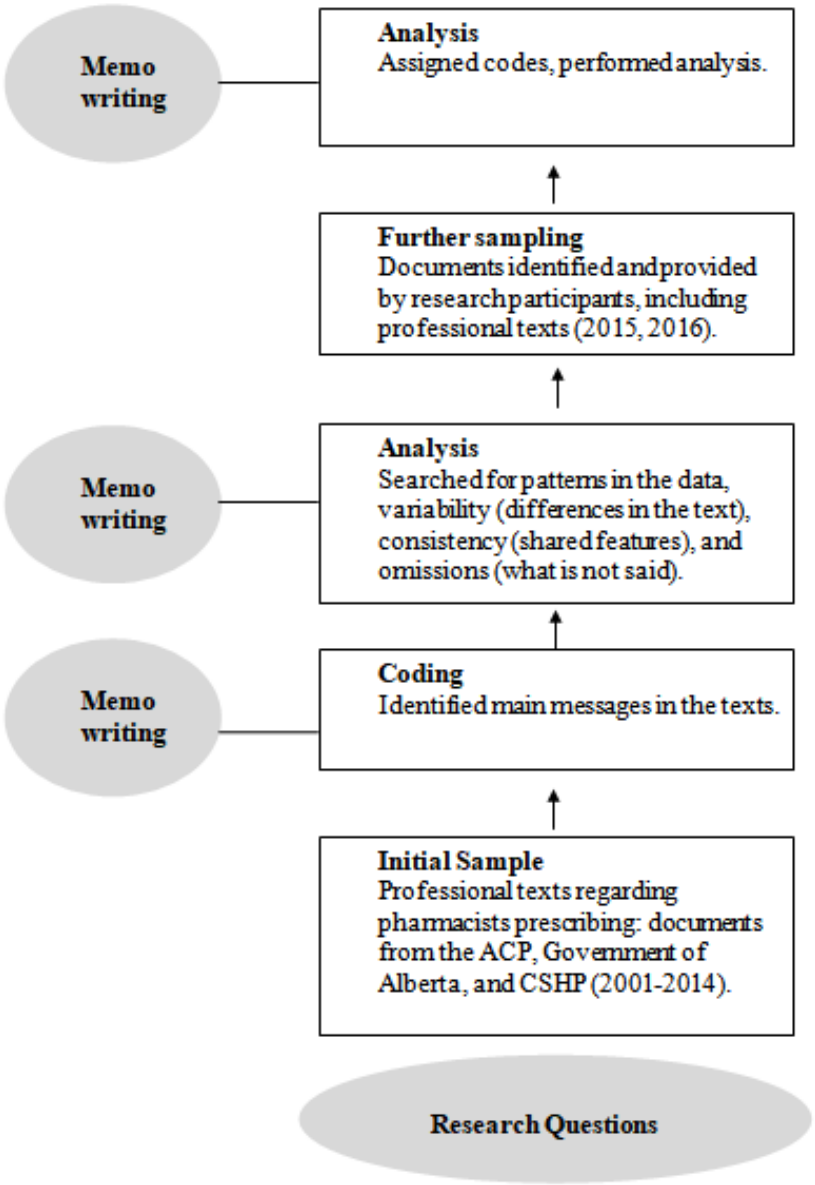


Figure 3.2. Discourse analysis approach based on Potter and Wetherell (1987).

Sample. Two methods of document sampling were used in this study. Initially, a targeted sample of documents "pertaining to the emergence, persistence, and/or evolution" of pharmacist prescribing in Canada was used (Linders, 2008, p. 475). The initial sample comprised 56 texts representative of pharmacist prescribing documents and communications from pharmacy organizations in Canada, including the Alberta College of Pharmacists, Alberta Pharmacists' Association, Canadian Society of Hospital Pharmacists, and the Canadian Pharmacists Association (Appendix A). The sampling time frame corresponded with the publication of the first document on prescribing, which appeared in 2001. The sample included a variety of professional documents such as proposals, position statements, regulations, standards of practice, a prescribing application guide, frequently asked questions for pharmacists and the public, and newsletter articles (refer to Table. 4.1). All documents in the initial sample were accessible on the organizations' websites. One of the advantages of selecting professional texts for this phase of the study is that "…collecting naturalistic records and documents [results in] the almost complete absence of researcher influence on the data" (Potter & Wetherell, 1987, p. 162).

The second approach to sampling was participant contribution, akin to what Linders (2008) referred to as "*anything you can get your hands on*" (p. 476, italics in original). This second sampling of 10 texts took place in conjunction with phase two of the study (see Table 3.1, p. 40). Prior to the interviews, research participants were asked to identify documents that impacted their experiences with or views of pharmacist prescribing. Examples were provided to give the participants general direction in their choice of texts; professional journal articles, magazine advertisements, media reports, and standards of practice were all suitable for the purposes of this study. None of the participants brought documents to the interview. However,

texts suggested by study participants were located and analyzed when possible. The texts were added to the sample selected for analysis in phase one of the study.

Phase one commenced in December 2013 and continued until data collection and analysis was completed for both phases of the study. Phase two of the study began with the first participant interview in January 2014 and concluded in August 2014. Collection of additional texts continued throughout the study, concluding in December 2016. In total, 128 texts were included in the study.

***Analysis*.** This component of the research has been described as a cyclical process in which the researcher "…mov[es] between analysis and coding" (Potter & Wetherell, 1987, p. 167). As noted by Potter and Wetherell (1987), the purpose of coding is "… not to find results but to squeeze an unwieldy body of discourse into manageable chunks" (p. 167). The coding stage produced categories "…crucially related to the research questions of interest" (Potter & Wetherell, 1987, p. 167). In this study, coding entailed manual marking up of copies of hard-copy texts and use of NVivo, a computer program that aids in qualitative analysis, for digital texts. NVivo 10 was initially used for this study; the software was subsequently updated to NVivo 11. Close reading of the texts permitted identification of relevant "passages… to examine the construction of our realities" (Given & Olson 2003, p. 173). Memo writing involved creating a list and describing the codes and concepts emerging in this stage of the discourse analysis. Memos were initially created using NVivo, then later (phase two) written in notebooks in conjunction with memos as per the grounded theory approach.

The analysis consisted of two stages. First, the data was searched for patterns emerging from within for variations and consistencies (Potter & Wetherell, 1987). Second, the intended function and consequences of the texts were noted. The analysis entailed identification of shared

features and differences within and among the documents in the sample. During this coding and analysis stage, attention was given to aspects of pharmacist prescribing that were both present and absent in the texts, that is, what was said and not said about pharmacist prescribing. Memo writing was used throughout this stage to identify discourses and analyze variations, tensions, functions, and consequences. Memos also served as a tool for reflection during the research process as the researcher's impressions were noted.

***Validation*.** Portions of the analysis were validated through a technique called participant orientation. This approach was included in this study to determine how the study participants use and make sense of information on prescribing. The approach to discourse analysis was not intended to produce "…dictionary definitions of words, or abstract notions of meaning"; rather, it was meant to identify "distinctions participants actually make in their interactions… which have important implications for their practice" (Potter & Wetherell, 1987, p. 170). Once the researcher completed the analysis of the initial sample of documents, descriptions of the discourses representative of concepts associated with pharmacist prescribing were prepared to present to study participants for interpretation during interviews in phase two of the study. Three discourses identified in the textual analysis were explored: (1) expertise, (2) interprofessional collaboration, and (3) moving forward (these are described in Chapter Four). For example, in response to the invitation to interpret the discourse of "moving forward", Delilah contributed these thoughts:

> I think it probably is allowing pharmacists to optimize their skills and take more responsibilities. Let go of responsibilities that other para-medicals can take on such as pharmacist technicians. So, I think in terms of that, I think all of our professions in the pharmacy area including pharmacy assistants, I think now the roles are being more

> clearly defined, so that there is an ability for everyone to expand their roles to clearly defined levels. In that sense, I can see that the profession is moving forward. I think we're coming closer to taking on high-level responsibility for patient care. And, I think greater collaboration with other health care providers across the board, not just physicians, but also with dietitians, other diagnosticians, and probably with clinical researchers as well.

There were times when participants spontaneously expressed their views. In this example, Kimberly stated how she sees pharmacists' expertise to be positioned by the profession:

> Where did that [idea of drug expert] originate? I feel like it was an advertising campaign with practice change. I don't know whether it started with our College, but that is where I experienced it. [The Alberta College of Pharmacists] trying to promote the profession… trying to maintain or set a role for the pharmacists. While I agree we are the drug experts, it's the patient care / medication management kind of frame that I like better, rather than drug expert.

Phase two: Grounded theory and pharmacists' experience with prescribing. The second phase of the study explored pharmacists' experiences with prescribing. In-depth, semi-structured interviews with pharmacists who had attained APA were conducted using an interview topic guide (Appendix B). Using the grounded theory approach, as adapted from Charmaz (2006), allowed exploration of pharmacist prescribing from the individual professional's perspective. Sampling, interviewing, and analysis procedures are outlined in the following sections. Phase two of the study is depicted in Figure 3.3.

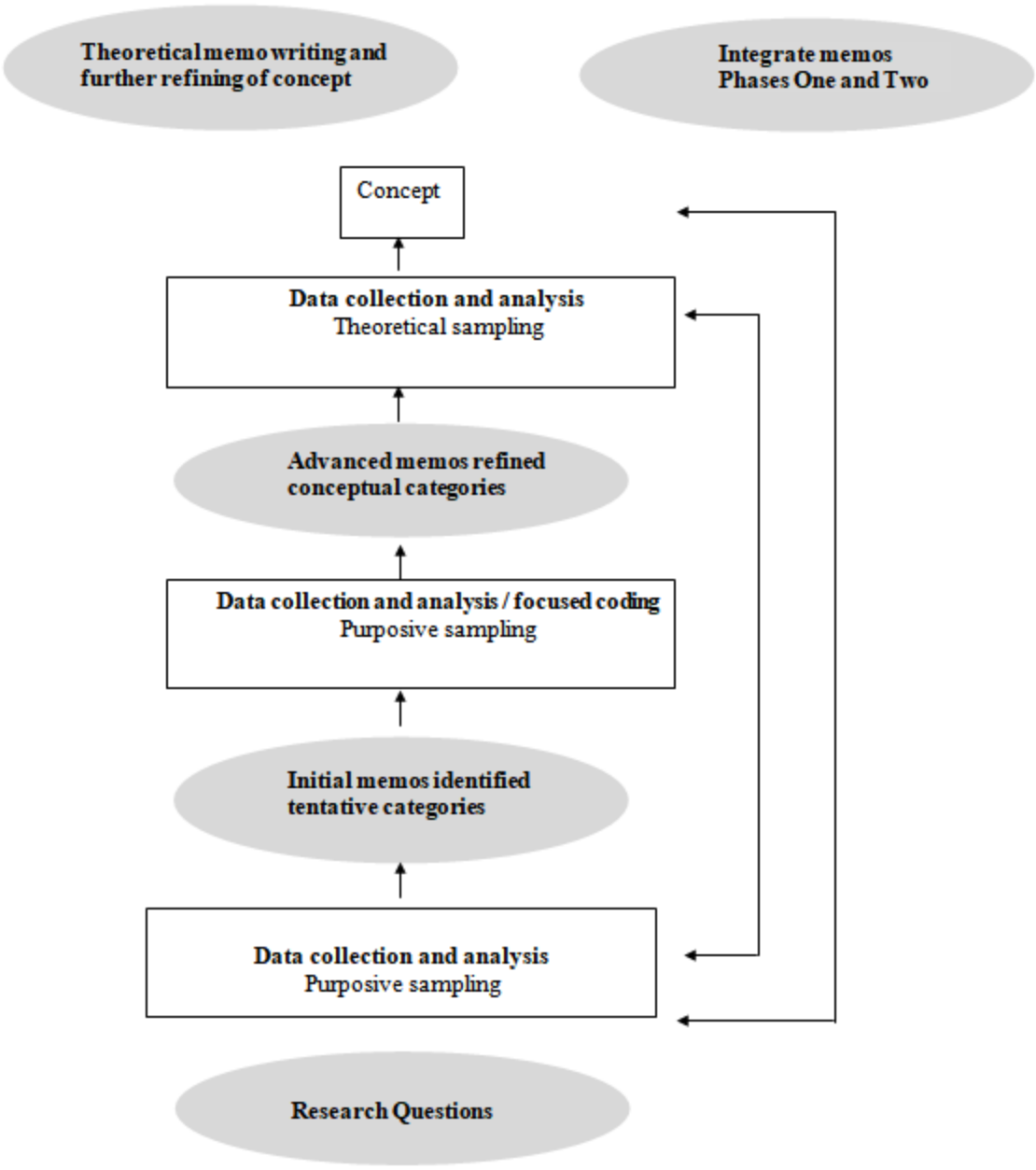


Figure 3.3. Grounded theory approach based on Charmaz (2006).

Sampling. The researcher gained the appropriate approval to conduct this study from the University of Alberta Research Ethics Board (Appendix C). Two sampling techniques were used: purposive and theoretical (Charmaz, 2006; Morgan, 2008). Purposive sampling was a

strategic starting point for the study to select research participants for the particular purposes of the research. For this study, purposive sampling strategies were initially used to identify research participants with various prescribing backgrounds, experiences, and perspectives (Palys, 2008). Theoretical sampling, an important grounded theory strategy, permitted further exploration of concepts and theories emerging during the initial sampling process and the analysis (Charmaz, 2006).

At first, pharmacists with APA and a minimum of two years of practice experience who were actively prescribing in their practices in Alberta were invited to participate in the study. The initial sampling process was guided by the variables outlined in Table 3.1. Participants were initially chosen based on a general sense that they had the ability to speak to the subject area; therefore, decisions of whom to include in the sample were not based on theory. As categories and concepts emerged during the study, theoretical sampling replaced purposive sampling.

Table 3.1

Initial Purposive Sampling Criteria

Experience	**Practice**	**Practice Setting**	**Education**	**Practice Location**
1–5 years	Full–time (35–40 hours/week)	Community	Bachelor of Science	Urban
6–15 years	Part–time (<35 hours/week)	Hospital	Residency	Rural[a]
16–25 years		Primary care	Certificates (e.g., diabetes educator)	
25+ years		Specialty clinic	Graduate degree	

[a]A rural practice was defined as one established in a centre with a population of less than 10,000 and situated more than 35 kilometres from a major urban centre (Vik et al., 2003).

The second sampling technique, theoretical sampling, was used to identify participants according to emerging variables and categories that arose from the initial analysis. As the categories were created and further developed, participants and data were sought that suited the categories and contributed to the theoretical concepts emerging from the initial analysis. Criteria for theoretical sampling were not identified prior to the start of the study, as "…it is not about representing a population or increasing the statistical generalizability of [the] results" (Charmaz, 2006, p. 101). Participants were chosen for their specific experiences and the data they could provide (Charmaz, 2006). Categories related to identifying focus areas for prescribing, fitting prescribing into established practices, and collaborating with other health care professionals were formed. Recruitment stopped once theoretical saturation was reached. The total sample size for this phase of the study was 20 pharmacists. Further details describing participants are provided in Chapter Five.

Contacting study participants. Prospective study participants were identified using a variety of approaches. The Alberta College of Pharmacists maintains a register of pharmacists with APA and a list of pharmacists who have authorized distribution of their contact information for research purposes. The Alberta College of Pharmacists provided a list of prospective participants prior to the start of the interviews (Linda Hagen, personal communication, September 17, 2013). Due to the increases in numbers of pharmacists authorized to prescribe in 2013, the researcher requested a second list (Linda Hagen, personal communication, March 11, 2014). This second list also provided details regarding practice setting (i.e., place of employment), number of years with an Alberta pharmacy practice permit, and location (i.e., name of city or town). In addition, prospective participants were identified through association or suggestions during the theoretical sampling phase.

Study participants were approached directly by the researcher through electronic mail, telephone calls, or personal contact. The electronic mail invitation is provided in Appendix D. Information about the study, including the purpose of the research, general research design, and participant rights, was provided to participating pharmacists prior to the interview through electronic mail. The Information Sheet and Consent Form are provided in Appendix E. Following agreement to participate in the study, the researcher communicated with each participant via telephone to establish an interview time and location, inform participants that interviews would be between one and two hours in length, and invite them to bring documentation relating to pharmacist prescribing.

Participants were recruited over an eight-month period (January to August 2014). Thirty-one pharmacists with APA were contacted via email using addresses provided by the Alberta College of Pharmacists. Twenty-one pharmacists responded to the email invitation and 20 agreed to participate in the interviews. One pharmacist declined due to scheduling challenges.

Interviews. In this phase of the study, semi-structured, in-depth interviews were conducted, which are particularly well-suited for studies based on grounded theory. A semi-structured approach permitted a variety of topics to be explored (Charmaz, 2006; Holstein & Gubrium, 2003). The topic guide listed questions that aimed to elicit information about the pharmacists' experiences with prescribing, pharmacy practice, and education (Appendix B). As data collection and theoretical sampling progressed, interview questions related to their roles as pharmacist prescribers and their behaviour regarding information were emphasized. Interviews were conversational in style. Their average length was 77 minutes, ranging from 49 to 126 minutes. They were conducted in person, when possible, and at private locations chosen by the study participant (e.g., participant's workplace, homes, various neutral locations). In some

instances, a face-to-face interview was not possible. The use of Skype and telephone interviews permitted participation for pharmacists working at a distance (Fontana, 2002; Saumure & Given, 2010). The interview approach utilized in this study created an environment of self-disclosure that allowed the study participants freedom to share aspects of their lives and relate their experiences fulfilling their professional prescribing role (Johnson, 2002). Descriptive demographic data were collected from them at the start of the interview (e.g., practice location, setting, years in practice, educational background). Participants either provided a copy of the signed Information and Consent Form, or signed the form in person at the interview (Appendix E). Interviews were digitally recorded and subsequently transcribed verbatim.

A transcription service was retained to create transcripts from the recordings within 24-48 hours of the interviews. A confidentiality agreement was made with the transcriber (Appendix F). Digital recordings of the interviews were used to verify accuracy of the transcription, which was the first step of the analysis. Following each interview, a transcript was created, then the text was subsequently reviewed by the researcher for errors and anonymized. The researcher removed filler words such as “like”, “you know”, and “um”. The transcripts were coded prior to the start of the next interview. Digital copies of transcripts are stored on the researcher’s computer and password protected. Back-up copies of the interviews and transcripts were stored on a USB drive in a locked cabinet. The recordings will be maintained for five years following completion of the study.

Constant comparative analysis. The analytical process involved constant comparison of codes and concepts. Charmaz (2006) defined coding as “naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data” (p. 43). Coding the interview data was done in two steps: initial and focused (see Figure 3.2, p. 46). The

initial step entailed a combination of line-by-line coding of each word, phrase, or segment and coding incident-to-incident. This initial coding was performed quickly to spark thinking about the data and generate initial ideas following each interview. The coding process identified actions and tacit meaning in each line of the text or incident described. Innovative terms used by study participants were also noted. This step was followed by focused coding, which entailed using the most significant or frequent codes to "sort, synthesize, integrate, and organize large amounts of data" (Charmaz, 2006, p. 46). Focused codes were more directed and selective than initial codes (Appendix G). In this phase, focused codes were compared with other codes through re-examination of data collected in earlier steps of coding. The codes were categorized and revised as further comparisons were made. This analytical process continued throughout the writing process.

During coding, memo writing was used to document thoughts, comparisons, and connections and to identify any new questions and directions to pursue (Charmaz, 2006). Comparisons to other research and literature were ongoing throughout phase two. Early memos focused on defining the codes and identifying further data collection. Later memos elaborated details of the categories, made comparisons between them, and integrated raw data; they were used to create definitions of emerging concepts, identify gaps in the analysis, and challenge codes or concepts through asking questions about the data (Charmaz, 2006, p. 82). Further development of the concepts and identification of their relationships to each other was accomplished during the last phase of the analysis. Coding, analysis, and memo writing continued until theoretical saturation was reached. Charmaz (2006) stated that "theorizing means stopping, pondering, and rethinking anew… [to] look at studied life from multiple vantage points, make comparisons, follow leads, and build on ideas" (p. 135). The analysis process in this

stage of the research engaged the researcher in "*seeing* possibilities, *establishing* connections, and *asking* questions" (Charmaz, 2006, p. 135, italics in original) through integration of coding and concepts. The NVivo software was used for coding, analysis, and memo writing in combination with hand-written notes and memos in notebooks used in this study.

Saturation was reached "…when gathering fresh data no longer spark[ed] new theoretical insights, nor reveal[ed] new properties of… core theoretical categories" (Charmaz, 2006, p. 113). In grounded theory, saturation does not refer to repetition of stories, actions, statements, or experiences. It relates to the categories emerging in the data through constant comparison of the properties of the categories, until no new properties emerge. Saturation was confirmed following analysis of transcripts of 20 participants at which point recruitment ceased.

Integrating the results of the analysis from interviews (grounded theory approach) with the results of the textual analysis (discourse analysis approach) was an innovative way to address the research question (Charmaz, 2006). The results generated in both phases of this study were analyzed for coherence "…to see how the discourse fits together" (Potter & Wetherell, 1987, p. 171) and to reveal "which elements of a particular discourse are taken up by real live people and which are not and vice versa" (Clarke, 2005, p. 176). This study is therefore an exercise in interpretive theory in the social constructionist tradition, an "imaginative understanding" of pharmacists' experiences with and sense of their prescribing role (Charmaz, 2006, p. 126).

***Theoretical sensitivity*.** Theoretical sensitivity refers to the researcher entering the work with a general awareness of the topic, but without any preconceptions about what might be discovered through the research process. Charmaz (2006) views theoretical sensitivity as the way the researcher moves from a descriptive level to an analytic level in the coding process (i.e., how the researcher theorizes). Having theoretical sensitivity involves stopping, pondering, and

rethinking to "look at studied life from multiple vantage points, make comparisons, follow leads, and build on ideas" (Charmaz , 2006, p. 135). The researcher's abilities, including their "level of insight into the research area, how attuned they are to the nuances and complexity of the participant's words and actions, their ability to reconstruct meaning from the data generated with the participant" (Mills et al., 2006, p. 25), are salient as well. Theoretical sensitivity can be based on previous research or on personal or vicarious experience. In this study, theoretical sensitivity was maintained throughout all the stages of the study through constant comparison of codes, categories, memos, and literature. The researcher interacted with the data by asking questions, making comparisons, and looking at differences (Charmaz, 2006). The goal was to remain open to new possibilities and unexpected results. In a study with a constructivist approach, theoretical sensitivity can also be developed through reflexivity (Charmaz, 2006).

Reflexivity. Reflexivity refers to examination of the researcher's positionality within the research. It entails critical self-evaluation of experiences with the research process to assess how and to what extent the researcher's views and assumptions influence the research (Charmaz, 2006). The researcher must recognise and challenge any personal biases. Reflexivity provides a mechanism to make the researcher's influence on the research process transparent. Together with theoretical sensitivity, reflexivity enhances the rigor of grounded theory research (Hall & Callery, 2001). In this study, the researcher first addressed the reflexive nature of the topic through continuous documentation of her own personal biases arising from pharmacy practice experiences and involvement in pharmacist prescribing prior to the start of the study. This was achieved through examining her role as pharmacist and pharmacist researcher (see Role of the Researcher, p. 67). Charmaz (2000) views writing memos as a means to set aside previous experiences to assist with reflexivity. Throughout the research process the researcher used

memo-writing to examine differences and similarities between personal views and those of study participants. The consistent practice of writing about views, biases, experiences, and assumptions were among the many efforts toward reflexivity made throughout the study. To this end, careful attention was paid to collecting data and reporting of the results, including negative information.

Ethical Considerations

Researchers must ensure that research on human subjects is carried out in an ethical manner and adheres to standards set out by the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada, 2010). The ethical standards and protocols of this study conformed to the *Tri-Council Policy Statement* and the University of Alberta Research Ethics Board guidelines. Phase two of this study was approved by the Research Ethics Board for evaluation of qualitative research. Ethical issues of consent, confidentiality, anonymity, and harm are key considerations in this proposal (Christians, 2011; Kvale, 2007).

Information about the study, including its purpose, general design, and plans for dissemination, was provided to prospective study participants when there were invited to participate in the study. Participation in this study was voluntary and information concerning participants' rights to accept or decline participation was detailed in writing (Appendix E). These rights were reiterated at the start of the interviews. Participants were free to withdraw at any point during the study period. No participants withdrew from the study. After verbal consent was obtained, study participants were contacted via telephone to schedule interviews and solicit information about prescribing documents for Phase One of the study. Participants were assured

that document submission by participants was not a prerequisite to participation in the interview process. Consent forms were explained and completed prior to the start of the interviews.

Measures were taken to secure privacy, confidentiality, and anonymity of participants, including the assignment of pseudonyms in all documentation related to the study. Pseudonyms were assigned alphabetically by the researcher in all cases except two where participants chose to select their own: Delilah and Kimberly. Narrative descriptions of each participant were not included in this dissertation as a measure to secure anonymity. In addition, identifiable information in the reporting of the results was obscured, such as details of the practice setting and characteristic phrases associated with the participants. The prospective participants were advised that while every effort would be made to secure anonymity, if they hold highly visible or high-profile positions in the pharmacy profession, complete anonymity is impossible to guarantee. All responses and documentation arising from the interviews were treated as confidential. Digital audio files and transcripts are stored in secure locations, such as locked cabinets and the researcher's password-protected computer. As previously described, a confidentiality agreement was made with a transcription service (Appendix F).

Ethical challenges are anticipated in any research that explores study participants' experiences, understanding and interpreting of meaning, and professional identity. Consequences of participating in the research were considered. Aspects of the study with the potential to produce benefits or harm were considered in advance, including sharing details of professional activities, disclosing personal information, providing meaningful documents, or delving into unexpected topics during the interview process (Allmark et al., 2009; Kvale, 2007). On the other hand, participation in research may also produce benefits for participants; the interview experience may facilitate new knowledge, provide insights into professional practice and their

own experience, and change perspectives (Holstein & Gubrium, 2003). For example, in interview-based research, confidentiality and anonymity may be challenged by the use of direct quotes. Conflicts may arise between the researcher's quest to generate new knowledge and efforts to maintain confidentiality (Damianakis & Woodford, 2012). The researcher shared plans for dissemination in research publications and professional meetings, including the use of quotes, with study participants. Participants expressed no concerns.

Research involving professional peers or participants from small communities poses challenges for a researcher. This study of professionals with prescribing authorization is no exception. Maintaining confidentiality was a paramount concern, as participants may be easily identifiable from their stories (Damianakis & Woodford, 2012; Ellis, 2007; Wiles, Charles, Crow, & Heath, 2006). Since the researcher herself is a member of the small, connected community of pharmacists and is an educator in the only pharmacy school in Alberta, ethical issues may have potentially arisen related to her dual roles as researcher and colleague, or researcher and teacher, throughout the research process (Allmark et al., 2009; Ellis, 2007; Kvale, 2007). It was also possible that the researcher may know information about research participants outside of the study (Wiles et al., 2006), or that participants would respond in ways they anticipate that the researcher would like to hear (Kvale, 2007), or that the researcher would hear about practices contrary to the standards of professional practice. As these complicated ethical issues arise during the course of research, their wider professional and social consequences must be taken into account (Kvale, 2007).

These potential ethical issues were addressed in the following ways. The role of the researcher was disclosed to and thoroughly clarified with study participants. While it was impossible to anticipate and plan for all possible ethical conflicts, acknowledging that they will

arise was important to the research planning process. The researcher employed reflexive practices, such as documenting personal reactions and views, throughout the research process. This was achieved through the process of writing memos. Despite all efforts to avoid them, one potential ethical issue arose during the interview process. It related to a concern expressed by a participant regarding her ability to provide information about prescribing. This participant questioned whether or not her experiences were valid. For example, she confided: "I am not sure I am the best person to answer these questions. I have been told that what I do in my practice is not prescribing." She relayed her experiences with another study in which she was advised that her experiences did not count as prescribing. The participant therefore sought reassurance that the activities in which she engaged were valid in another study about pharmacist prescribing. This situation presented a potential ethical conflict for the researcher. The researcher explained the purpose of the present study and her inability to comment on the details of another study. This ethical issue was discussed with the dissertation supervisor.

Trustworthiness

To ensure the rigor of qualitative research, the trustworthiness of the work must be established. Trustworthiness is comprised of credibility, dependability, confirmability, and transferability (Denzin & Lincoln, 2011; Given & Saumure, 2008; Seale, 1999). These terms are parallel concepts to those associated with evaluation of quantitative research: internal validity, reliability–reproducibility, objectivity, and generalizability (Given & Saumure, 2008). Trustworthiness was achieved in this study through the following measures: (1) combination of data sources, (2) in-depth presentation of data and analysis, (3) member checking and discussions, and (4) careful documentation at all research stages.

For a study to have credibility, the researcher must provide sufficient and accurate

descriptions of the phenomenon studied, showing links between the data and analysis (Charmaz, 2006). The combination of data from interviews and textual analysis strengthens the trustworthiness of this research. In this study, data sources from both phases of the study provided valuable insights regarding the prescribing role. As previously noted, aspects of the textual analysis (phase one of the study) were presented to research participants for further analysis and co-construction of meaning. Use of this technique combined with interview data enhanced the credibility of the study results, facilitating exploration of the pharmacist prescribing role from different perspectives.

Other factors also contributed to the credibility of the results of this study: a conceptual analysis of the data; use of direct quotes from study participants; meticulous coding and analysis processes; and fastidious presentation of results. In addition, the use of NVivo software supported documentation of study procedures and analysis, which also enhanced the credibility of the study. Organizing and retrieving large amounts of data and taking advantage of advanced search functions were possible using the software, which facilitated creation of an audit trail (Seale, 2002).

Qualitative research is affected by the ever-changing social and cultural contexts in which studies are conducted (Given & Saumure, 2008). A study is described as dependable if other researchers can reproduce the procedures and collect data in similar conditions. This study can be described as dependable because many descriptions of study procedures and data collection tools were provided. The grounded theory and discourse analysis approaches used in this study were outlined thoroughly so that other interested researchers may reproduce the procedures.

Confirmability refers to the match between interpretations and the data (Given & Saumure, 2008). Member checking was used a strategy to confirm interpretations of meaning

with study participants (Sandelowski, 2008). This technique was employed during and after the interviews to clarify the ideas and descriptions provided by study participants. Participants were offered an opportunity to review transcripts and provide feedback or corrections following the interviews. Five participants requested transcripts. No changes were requested. Further, they were asked if they had an interest in receiving a summary of the results or in meeting to discuss the research findings at the conclusion of the study. A summary of the preliminary results was shared with all participants in January 2015. Subsequent discussions with four participants occurred during refinement of the categories and theoretical memos. These interactions provided feedback to the researcher about the presentation of the data; it was found that the researcher's interpretations made sense to or had resonance for the participants. Therefore, the trustworthiness of the study was deemed to be sufficient (Charmaz, 2006).

Transferability depends on the similarities between present and future research contexts (Given & Saumure, 2008). The context of pharmacist prescribing and the practice environment in Alberta was clearly outlined. The approach to sampling in this study, whereby the initial study participants were pharmacists from a variety of practice settings, experiences, and educational backgrounds, contributed to the transferability of the results because these participants may be seen as representative of the profession as a whole in Alberta. Therefore, the study results may be applicable provincewide. Detailed descriptions were provided so that others may determine the applicability of the findings of this study to other contexts.

Role of the Researcher

Constructionist research involves co-construction of new knowledge and meaning between researchers and study participants (Crotty, 1998; Gergen, 2009). Thus, the role of the researcher is twofold, as researchers are themselves embedded in the research process as

scholars, reflecting on their understanding of the phenomena that are co-constructed (Crotty, 1998). A constructionist framework requires that researchers "not remain straitjacketed by the conventional meaning we have been taught to associate with the object" of research (Crotty, 1998, p. 51). This approach demands that researchers question traditional modes of understanding and personal assumptions through reflection on their own interpretations along with those of their research participants (Charmaz, 2006). Reflexivity is critical to the research process. The assumptions and preconceptions that the researcher brought to the research were as follows: (1) prescribing medications is a logical and desired role for pharmacists, (2) working with colleagues and patients produces meaningful learning experiences, and (3) various learning strategies support learning of how to be a professional.

According to Dwyer and Buckle (2009) a researcher is an "insider" by virtue of having membership in the professional group being studied . The researcher considered her insider status as peripheral recognizing that she was not an authorized prescriber and was not involved in patient care. An advantage of having insider status was that the researcher's experiences with the practice of pharmacy and as a pharmacy educator prepared her for this research. Using a reflexive approach to the research, she noted prior experiences and views. She had contributed to committees and working groups related to pharmacist prescribing and participated in determining the direction for pharmacist prescribing in Canada (Task Force on a Blueprint for Pharmacy, 2008). In addition, she has contributed to studies led by other researchers exploring the adoption of pharmacist prescribing in Alberta (Guirguis et al., 2014, 2017; Hughes et al., 2014). Her role in pharmacy education at the University of Alberta over the last 20 years has primarily been to develop continuing professional development programs for practicing pharmacists and, more recently, for students in the undergraduate professional pharmacy

program. She has been a strong advocate for change in pharmacy education, for departure from a vocational-style approach that is narrowly focused on professional competencies, to a more inclusive approach incorporating ontological methods and acknowledging the process of becoming professionals. These areas of research in the pharmacy context warrant in-depth exploration. Thus, this dissertation provides an opportunity to contribute new knowledge. The researcher's past and present experiences influenced her role as researcher. Her insider status prompted her to be mindful of her own experiences and views, as evidenced by the reflexive practice that aided the process of completing this research.

Limitations and Delimitations

A limitation of this research relates to the sample of pharmacist prescribers who were interviewed. Qualitative researchers often embark on projects in areas with which they are familiar (Johnson, 2002). This is also the case in this study. As the researcher is a member of the pharmacy profession and a pharmacy educator, study participants may possess prior knowledge of or share relationships with the researcher. This fact may influence the results of the study. Another potential limitation often encountered in studies involving interviews is the possibility that research participants respond according to what they believe the researcher wants to hear (Fontana & Frey, 2000; Johnson, 2002). This limitation was partially mitigated through the semi-structured approach utilized for the interviews. In addition, the inclusion of texts recommended by research participants helped to represent their views and experiences from their own perspectives. Finally, this research is limited by nature of the stories shared by the study participants, as the information provided may be inaccurate or embellished. Although perfect accuracy in this kind of research cannot be guaranteed, Weick (1995) suggested that plausibility

should be privileged over accuracy, reminding researchers that "the stories are templates... They explain. And they energize" (p. 61).

This study is delimited by its context, that is, pharmacist prescribing in Alberta. In addition, pharmacists in the sample had at least two years of practice experience prior to authorization as prescribers and were actively working in patient care roles that included prescribing. This ensured the study participants had experience with the phenomenon studied through active engagement with prescribing. The documents in the sample in phase one of the study were selected to represent texts associated with prescribing in Alberta (Appendix A). No attempt was made to represent prescribing in other jurisdictions in Canada or other parts of the world, and therefore the texts chosen may not fully represent the discourse of pharmacists prescribing in the broader social and professional context of pharmacy in general. Because other texts, such as documents created by other provincial pharmacy organizations or national organizations representing pharmacists, undoubtedly contribute to how pharmacist prescribing is experienced, they were included in phase one of the analysis. Documents and texts contributed or identified by the study participants were collected and analyzed due to their influence on the experiences of the participants in their prescribing roles.

Summary

This chapter outlined the conceptual and theoretical framework that informed this qualitative study on how pharmacists enact and make sense of their patient care role as prescribers. Next, the ontological, epistemological, and methodological assumptions underpinning the theoretical framework of this study were specified. The social constructionist and interpretive paradigms informing the methodology were described, and the discourse

analysis and grounded theory approaches were summarized. Results of phase one of the study are presented in the next chapter.

Chapter Four: Discursive Construction of Pharmacists' Prescribing Role

To explore pharmacists' experiences as prescribers and how they make sense of the prescribing role, this study was conducted in two phases. The first phase involved analysis of documents related to pharmacist prescribing to explore how pharmacists' prescribing role was socially constructed through language. A discourse is "a set of meanings, metaphors, representations, images, stories, statements and so on that in some way together produce a particular version of events" (Burr, 2003, p. 64). Discourses are ways of understanding the world. They shape understanding of professional roles and influence action in professional practice. In this study, *discursive construction* refers to the language used within the pharmacy profession to express how pharmacists construct the prescribing role. As described in Chapter Three, a social constructionist discourse analysis approach inspired by Potter and Wetherell (1987) was used to examine discourses related to pharmacist prescribing in texts developed by pharmacy organizations. Professional associations and regulatory organizations influence pharmacists' understanding of their professional practices, particularly in relation to the emergence and understanding of new professional roles (Greenwood et al., 2002; Nerland & Karseth, 2015). By focusing on how these organizations positioned pharmacist prescribing, how pharmacist prescribing was discursively constructed in the texts, and how this construction has the potential to shape pharmacists' understanding of the prescribing role, we gain insight into how they perceive their professional identity. The results of this analysis draw attention to "the possibilities that discourses make available" (Talja & McKenzie, 2007, p. 98) and how language shapes pharmacists' actions, relationships, and identities in their everyday practice and in the context of prescribing.

In the next section of this chapter, the texts comprising the dataset, aspects of prescribing in Alberta, and discourses related to pharmacist prescribing are presented. As noted in Chapter Three, the discourse analysis in phase one of the study is concerned not only with language, but also with the relationships among discourse, text, and context. The discourses identified in phase one are revisited in relation to specific contexts related to pharmacists' prescribing experiences in phase two of the study, where discursive construction of pharmacists' identities as prescribers is explored further.

Texts

In order to gather qualitative data to investigate the representation of pharmacists as prescribers, texts that describe pharmacist prescribing developed by pharmacy organizations were included in the dataset. The texts included in the study were produced by four pharmacy organizations: the Alberta College of Pharmacists, Alberta Pharmacists' Association, Canadian Pharmacists Association, and Canadian Society of Hospital Pharmacists. These texts were addressed to audiences of practicing pharmacists in a variety of practice contexts in Alberta, including pharmacists with prescribing authorization. The Alberta College of Pharmacists is the licensing body for the pharmacy profession in the province of Alberta; therefore, membership is mandatory for practicing pharmacists. Membership in the other three organizations is voluntary, as they are advocacy organizations aimed primarily at different pharmacy audiences such as hospital pharmacists (Canadian Society of Hospital Pharmacists) and community pharmacists (Alberta Pharmacists' Association and Canadian Pharmacists Association).

The websites of the four organizations were reviewed for content related to prescribing throughout the study period. Initial analysis of 56 texts (2001 to 2013) was performed prior to the start of interviews with prescribing pharmacists in phase two of the research (December

2013). The purpose of the initial analysis was twofold: first, to identify discourses related to pharmacist prescribing, and second, to provide context for the interviews in the form of information presented to participants regarding APA. Preliminary results of the discourse analysis of the texts were incorporated into the interview guide (Appendix B) to validate concepts deemed to be representative of pharmacist prescribing. No questions about pharmacists as experts on drug therapy were included in the interviews, although this topic was brought to light by pharmacists participating in the study. Two other discourse topics related to pharmacist prescribing arising from the analysis were introduced during the interviews: collaboration and moving forward.

Pharmacists interviewed in phase two of the research were invited to contribute documents, articles, or images that were integral to their understanding of pharmacist prescribing. Following the interviews conducted in phase two of the study (January to August 2014), an additional 62 texts accessed from websites of the four pharmacy organizations for the duration of the study period (January 2014 to December 2016) were added to the dataset to ensure that this study would include up-to-date texts. Analysis of these 62 texts resulted in no new topics of discourse. The final dataset consisted of 128 texts (Table 4.1) listed according to source in Appendix A.

Table 4.1

Source, Number, and Description of Texts in the Dataset

Source	**Number (128)**	**Description of Texts**
Alberta College of Pharmacists	75	Information papers, newsletters, APA guides, standards, annual reports
Alberta College of Pharmacists and Alberta Pharmacists' Association	2	Newsletters
Alberta Pharmacists' Association	11	Statement, newsletters
Canadian Pharmacists Association	12	Statement, strategic plan, scope of practice, role description
Canadian Society of Hospital Pharmacists	18	Statement, information papers, brochure, letters, editorials
Study participants	10	Journal articles

Context

The distribution of texts according to year is presented in Figure 4.1. Prior to approval of pharmacist prescribing in Alberta, there were very few texts describing pharmacists' prescribing role. There was an increase in the number of texts following legislative approval of pharmacist prescribing in 2006 and following the introduction of a Compensation Plan for clinical pharmacy services (including prescribing) in 2012.

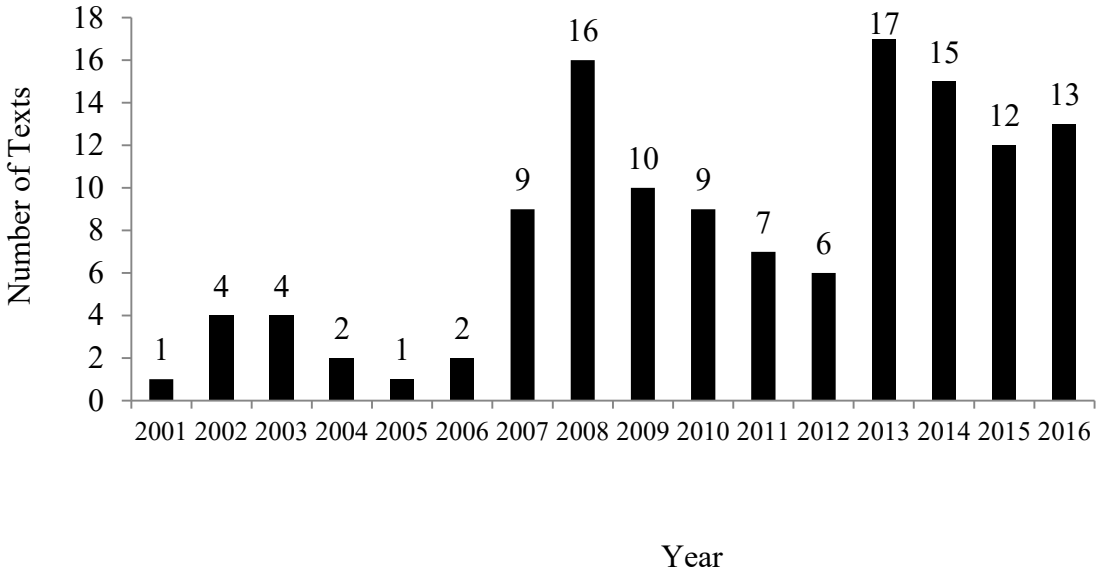


Figure 4.1. Numbers of texts by year.

The texts published prior to 2007 introduced the rationale for pharmacist prescribing and described the contribution of pharmacists' services to patients and the health system. During this time, the Alberta College of Pharmacists worked with the University of Alberta to develop professional development courses to support acquisition of clinical skills to prepare pharmacists for an expanded scope of practice (Schindel et al., 2012). At the end of 2006, the Alberta College of Pharmacists developed a process to implement pharmacist prescribing, specifying the APA application requirements and including peer review (Yuksel et al., 2008). Following a pilot of this APA application and review process, 15 pharmacists were granted APA when pharmacist prescribing was implemented in 2007. The APA authorization numbers are depicted in Figure 4.2.

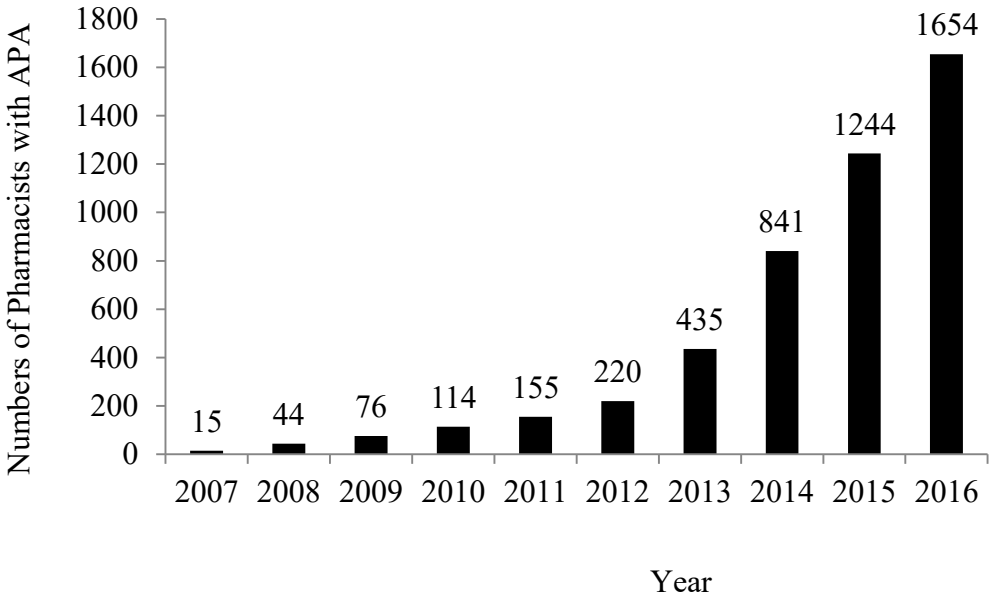


Figure 4.2. Numbers of pharmacists with APA by year.

The texts included in the dataset dated 2007 or later introduced Standards of Practice for prescribing, outlined the APA application and review process, and highlighted stories of pharmacists successfully applying for APA. The first guide for pharmacists applying for APA was published in 2008 (Alberta College of Pharmacists, 2008a). As mentioned in Chapter One, pharmacists applying for APA are required to have two years of practice in direct patient care, letters of support from other prescribers confirming a collaborative relationship, and documented completion of continuing education related to the focus area. During this early time period, 220 pharmacists, approximately 5% of pharmacists in Alberta, qualified for APA (Alberta College of Pharmacists, 2013a). Prescribing authorization was then encouraged by some pharmacist employers. For instance, Alberta Health Services, the employer for most hospital pharmacists in Alberta, adopted a policy permitting pharmacists with APA to prescribe in hospitals (Gray & Mysak, 2016). Alberta Health Services (pharmacy division) established APA as a strategic priority for pharmacists to achieve by 2018. In July 2012, a government-funded Compensation

Plan to reimburse community pharmacies for clinical pharmacy services, including prescribing activities, was introduced (Breault, Hughes, Whissell, & Schindel, 2017).

Beginning in 2013, the number of texts addressing pharmacists' prescribing increased when other Canadian provinces extended pharmacists' scope of practice to include prescribing for minor ailments, extending prescriptions, issuing trial prescriptions, or offering specific programs such as smoking cessation (Canadian Foundation for Pharmacy, 2016). In Alberta, meanwhile, the criteria for eligibility for APA were changed. Two of these changes reduced barriers for pharmacists applying for APA: (1) the requirement for two years of practice experience in direct patient care was reduced to one year, and (2) the letter of confirmation of a collaborative relationship with another prescriber was no longer required. The APA Guide was updated in 2013 to reflect these changes (Alberta College of Pharmacists, 2013b). During this time period, the Alberta Pharmacists' Association developed a continuing education course and offered individual coaching to support pharmacists applying for APA (Alberta Pharmacists' Association, 2013a). By the end of 2016, the number of pharmacists with APA had grown to 1658, representing 30% of pharmacists in the province (Alberta College of Pharmacists, 2017). This increase in the number of pharmacists with APA in community pharmacy practice coincided with the introduction of the Compensation Plan that reimburses services provided by pharmacists with APA at a higher rate than for those without it (Breault et al., 2017) and with changes in policies and programs adopted by Alberta Health Services to support pharmacists seeking APA. By March 2016, 49% of pharmacists employed by Alberta Health Services had APA (Gray & Mysak, 2016).

In the next section of this chapter, results related to this analysis of the discursive construction of pharmacists as prescribers are presented.

Discourses

Three discourses were associated with the construction of pharmacists' prescribing role: (1) expertise, (2) interprofessional collaboration, and (3) moving forward. In the following sections of this chapter, the results of the analysis are presented with attention to the variations, tensions, functions, and consequences of each discourse. In the presentation of the overall results of this study in Chapter Five, influences of the discourse on pharmacists' prescribing practice will be explored further as they relate to pharmacists' experiences as prescribers and understanding of their role.

Expertise. Pharmacists were constructed as highly educated professionals, well suited for the prescribing role, and as "drug therapy experts" (Alberta College of Pharmacists, ca. 2007, p. 3). There were subtle variations in how expertise was described related to knowledge of drugs or managing medication therapy. For example, the Statement on Pharmacist Prescribing initially developed for the Canadian Society of Hospital Pharmacists (2001) referred to expertise related to "pharmacotherapy and disease management" (p. 151) and the Canadian Pharmacists Association (2015a) referred to pharmacists as "medication management experts" (para 2). The texts emphasized pharmacists' preparation for the prescribing role based on their education, postgraduate training, continuing professional development, and practice experience. Their expertise includes knowledge of drugs, management of medication therapy, and provision of patient care. Pharmacists' expertise was compared to that of other professionals; their ability to prescribe was considered equal or superior to that of physicians. The discourse positioned pharmacists as ideal for the prescribing role, as they "receive more education and training about drugs and drug therapy than any other group of health care providers who are authorized to prescribe" (Pipa, 2004, p. 2). In a direct comparison with physicians, one text stated that

pharmacists' expertise enables them to "teach the drug and drug therapy courses to [physician] prescribers and provide drug consultations to [physician] prescribers" (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 7). As the Canadian Society of Hospital Pharmacists boasted, "Some controlled data do exist to indicate that pharmacists are able to function effectively as prescribers, performing as well as or better than physicians" (Pearson et al., 2002, p. 3). There was tension in the discourse between the ideas that pharmacists had existing expertise for prescribing and pharmacists needed to develop other areas of expertise in order to assume the prescribing role successfully. Other areas of expertise required for prescribing included teamwork, collaboration with other health care providers, and documentation skills.

Few limits on prescribing were imposed when regulations related to pharmacists' prescribing were initially approved in Alberta; therefore, pharmacists focused their prescribing in specialty areas based on their expertise. The discourse of expertise had unintended consequences on APA applications. Pharmacists' interpretation of this discourse in terms of their own eligibility for APA with respect to requirements for education, continuing education, and areas of prescribing resulted in low numbers of applications at first. The discourse focused on justifying pharmacists' prescribing to external stakeholders and legitimizing their previous contributions to patient care. Features of the discourse including variations, functions, tensions, and consequences are explored in more detail in the sections that follow.

Variations. There was initially very little variation in how pharmacists' expertise in drug therapy was described by the four pharmacy organizations. However, over time, there was a shift in how pharmacists were constructed as prescribers, from having knowledge of pharmaceuticals (i.e., drug therapy expertise) to doing something with that knowledge (i.e., medication

management). Initially, pharmacists were described as “drug therapy experts” by the Alberta College of Pharmacists (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 7). In addition, the president’s message in 2012 positioned pharmacists as “medication management specialists” (Alberta College of Pharmacists, 2012, January/February, p. 20), thereby emphasizing the professional service, or role, of managing medications. The Canadian Pharmacists Association statement on prescribing initially positioned pharmacists as “medication experts” (Canadian Pharmacists Association, 2011, p. 1) and later as “medication management experts” (Canadian Pharmacists Association, 2015a, para. 2). The Canadian Society of Hospital Pharmacists (2001) initially drew attention to pharmacists’ expertise in “pharmacotherapy and disease management”. In later texts, the Canadian Society of Hospital Pharmacists (2009a) did not refer to drug or pharmacotherapy expertise, but to what pharmacists do in practice: “Pharmacists are committed to the provision of high-quality, patient-centred care. Assessment of patients, management of their medications, and monitoring of care are core elements of pharmacists’ practice” (para. 1). These changes represented a shift in the way pharmacists’ expertise was framed: from a focus on drug knowledge to an active role in providing patient care. This shift to a patient care provider role was important for pharmacists to be recognized as prescribers.

Pharmacists practicing in hospital settings and those with post-graduate training were positioned as better prepared for the prescribing role. Pharmacists in hospital practice positioned themselves as having developed documentation skills and other abilities necessary for the prescribing role through their everyday work experience:

> Broadly speaking, hospital pharmacy practice provides the ideal opportunity to support pharmacist prescribing because of the ability of hospital pharmacists to access and interpret patient medical records, their experience in practising as part of a multidisciplinary clinical team, and their familiarity with documenting patient care recommendations and activities. (Pearson & Dalen, 2008, p. 351)

Because of the practice setting, implementation of prescribing for hospital pharmacists was portrayed as easier than doing so for pharmacists in other settings: "it may be logistically easier to implement pharmacist prescribing within this setting" (Pearson & Dalen, 2008, p. 351). The authors of other texts representing community and hospital pharmacist perspectives concurred:

> Those with higher levels of education/training and functioning in partnership with other health professionals are likely to make more complex decisions identified within "managing comprehensive drug therapy". Those pharmacists accessed by patients directly in community pharmacies are more likely to be involved with decisions related to the treatment of minor injuries and self-limiting conditions, wellness and maintaining the continuity of care. (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 17)

Variations in expertise were therefore attributed to education level, practice setting, and proximity to other health care professionals.

Another variation in pharmacists' prescribing role was highlighted in the texts: the scope of the drugs pharmacists could prescribe. This variation was noted in texts both prior to and after approval. When the Alberta College of Pharmacists initially proposed prescribing by pharmacists in Alberta, some limits on prescribing were anticipated: "Pharmacists will be limited to prescribing within their competency and within a collaborative health team environment.

Pharmacists with unique knowledge and training will provide drug therapy management in specialized areas (i.e., anticoagulation, asthma, diabetes, geriatrics, hypertension, oncology, pediatrics)" (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 8). Pharmacist prescribing was also limited in terms of scope, as they were predicted to be involved in "prescribing symptomatic relief or prescribing for previously diagnosed conditions" (Alberta College of Pharmacists, ca. 2007, p. 3). Initially, pharmacists' prescribing was restricted to specific drugs such as emergency contraception (Canadian Society of Hospital Pharmacists, 2009b) or required oversight by a physician, as with the supplementary prescribing approach in the UK (Dawoud et al., 2011). Limitations to the scope of pharmacist prescribing reflected concerns, especially from physicians, about this new role for pharmacists.

When pharmacists' prescribing was approved and implemented in Alberta, few legislative limits were imposed. Albertan pharmacists with APA were legally authorized to prescribe prescription drugs with a few exceptions: narcotics, controlled drugs, and benzodiazepines (Alberta College of Pharmacists, 2011). This approach recognized "the diversity of environments and situations within which pharmacists practice, the diversity of disease states that pharmacists are involved in treating, the diversity of client needs and the diversity of knowledge that exists among Alberta's pharmacists" (Alberta College of Pharmacists, ca. 2007, p. 3). In these early years, however, there were fewer limitations on prescribing in Alberta compared to other jurisdictions that restricted pharmacists' prescribing to specific drugs or conditions (Canadian Pharmacists Association, 2015b).

Stories offered in newsletters emphasized how pharmacists themselves intended to impose limits on their own prescribing based on the Standards of Practice for pharmacists in Alberta, which require pharmacists to "be aware of the limits of the pharmacist's personal

competence, and only provide pharmacist services within these limitations" (Alberta College of Pharmacists, 2011, p. 8). Prescribing was limited according to the pharmacist's "understanding of the condition being treated, treatment alternatives, and the drug being prescribed" (Alberta College of Pharmacists, 2007, June, p. 1). Self-assessment of knowledge, competence, and individual expertise by each practitioner was considered vital. Similar messages regarding limitations on prescribing were given by the Canadian Pharmacists Association: "Pharmacists who prescribe should do so within their area of competence, scope of practice and with sufficient clinical knowledge of the patient" (Canadian Pharmacists Association, 2011, p. 1). The Canadian Society of Hospital Pharmacists (2001) initially suggested limiting prescribing to collaborative practice "to comply with their legislative practice framework, which includes standards of practice and codes of ethics" (Canadian Society of Hospital Pharmacists, 2009a, p. 1). Limitations related to pharmacists' expertise were consistent with the profession's focus on patient safety.

Another variation in the discourse of expertise related to prescribing as a choice for pharmacists. Pharmacists in Alberta are not required to apply for APA; it is a choice. Using their expertise to prescribe drugs independently was not an expectation for all pharmacists. The proposal for the Alberta prescribing model:

> Recognized that, especially in the next few years, not all pharmacists will provide the full continuum of prescribing activities… Decisions will be based on their assessment of their knowledge base, their competency, and their practice environment. Pharmacists must feel able to resist pressure from employers and others to exceed their competence or practice environment and be assured that they will be supported in doing so. (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 19)

The Alberta College of Pharmacists urged pharmacists to use discretion when providing a patient care service such as prescribing: “Just because you can perform an activity, doesn’t mean that you should!” (Alberta College of Pharmacists, 2015, May/June, p. 1). Hospital pharmacists, in an article debating if pharmacists should prescribe, asserted that pharmacists were not obligated to prescribe: “The prescriptive authority granted to hospital pharmacists does not translate into an obligation to prescribe, and the question of ‘whether or not to prescribe’ may be dictated by circumstance” (Mansell & Hopf, 2014, p. 391).

Function. The discourse of expertise functioned initially to legitimize pharmacists as prescribers. The argument for pharmacist prescribing recognized pharmacists’ specialized knowledge and expertise required for the prescribing role based on their “education, training and experience” (Bacovsky, 2003, p. iv). The Alberta College of Pharmacists’ proposal for prescribing legislation emphasized that pharmacists were “the health professionals with the most education and training about drugs and drug therapy” (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. iii). At the time pharmacist prescribing was proposed to the Alberta Government and other stakeholders, pharmacy degree programs were undergoing curricular reform to enhance patient care skills and experiential learning in practice settings. The Alberta College of Pharmacists emphasized “pharmacists' involvement in dependent prescribing activities for decades” (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 16) and the fact that “pharmacists are already performing many of the activities proposed within the expanded scope of practice. It is important that these roles be legitimized through the new regulations” (Alberta College of Pharmacists, 2004, p. 19). The Canadian Society of Hospital Pharmacists reported that their “members were already involved to various degrees in prescriptive activities” (Gray, 2002, p. 92). The prescribing model proposed in

Alberta "reflects many roles that pharmacists are already performing. Recognizing prescribing within the scope of practice of pharmacists formalizes the responsibility that goes along with these decisions" (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 18). Pharmacy organizations advanced the discourse of expertise to argue for approval of pharmacist prescribing. Following this approval, it was noted that "progress in the delivery of pharmacy education [and] advancements in professional development programs" were considered contributing factors in the approval process (Yuksel et al., 2008, p. 2128).

The discourse of expertise validated pharmacists' efforts to use their expertise to provide prescribing services to the public:

> Pharmacists' expanded scope of practice recognizes roles and responsibilities that pharmacists have increasingly been taking on to meet patient needs, particularly as access to health services has become increasingly stressed. It also acknowledges the high trust the public and the government place in pharmacists. (Alberta College of Pharmacists, 2008b, p. 5)

Individual pharmacists noted that their expertise was acknowledged by the public: "I think a lot of patients feel that pharmacists know more about medications than other health care providers, and having additional prescribing authority validates that. I think this further enhances my patients' confidence in me" (Alberta College of Pharmacists, 2008, September/October, p. 8). Prescribing legislation added legitimacy and significance to pharmacists' prescribing and gave formal government recognition and validation to pharmacists' professional expertise.

Tensions. While pharmacists had existing expertise, they needed to develop other areas of expertise to assume the role of authorized prescriber. Expertise in drug therapy and

medication management alone was not sufficient for the prescribing role. Development of new expertise was portrayed as necessary for success within the prescribing role. This element of the discourse revealed a tension between pharmacists having the education, knowledge, and expertise in drug therapy to assume responsibility for prescribing and their need to develop knowledge and skills in other areas. Other expertise required for prescribing included documentation, teamwork, and patient care skills.

The Alberta College of Pharmacists highlighted the importance of documentation as "perhaps the most important area" in pharmacists' prescribing practice (Alberta College of Pharmacists, 2008, March/April, p. 5). This emphasis on documentation appeared in the texts in relation to prescribing and its importance to patient care:

> Thorough documentation is not just required when prescribing; it is critical every time you make a decision affecting patient care – even if your decision is to not take any action. As pharmacist practice becomes more patient care centred, and patient care becomes more collaborative, it is crucial that all caregivers record their decisions so that everyone is in the loop. Good documentation is key to ensuring safe, effective, and responsible patient care. (Alberta College of Pharmacists, 2009a, Winter, p. 5)

Other texts highlighted challenges with documentation from the pharmacists' perspectives, lending support to the idea that pharmacists needed to develop documentation skills further for success in the prescribing role, especially in community pharmacy practice. One pharmacist recalled preparing the prescribing application: "Making a care plan, as a community pharmacist, was one of the hardest things to do. I had the info, but I never had to present it" (Alberta College of Pharmacists, 2008, March/April, p. 2). Another community pharmacist said, "My biggest area

of uncertainty was charting. I wasn't sure if I had all the documentation I needed" (Alberta College of Pharmacists, 2008, November/December, p. 8).

Pharmacists were portrayed as needing to expand expertise to include knowledge of teamwork. Expertise required for the prescribing role was "not just about pharmacy… [but] about health care, about professional development, about how we maintain and enhance our competence, and about how we care for patients as teams" (Alberta Pharmacists' Association, 2015, p. 6). Hospital pharmacist prescribers believed "it is insufficient for us to remain *just* drug experts. In order to prescribe medications safely and effectively, we must utilize *all* information available to us. Therefore, we must extend our knowledge base to other areas and disciplines" (Barry & Pearson, 2010, p. 59).

Additional knowledge and skills in patient care were emphasized. In the discourse, pharmacists' prescribing role was constructed as requiring skills related to physical assessment and new approaches to patient care. Barry and Pearson (2010) observed that pharmacists

> …have traditionally preferred to leave the up-close-and-personal patient care to other members of the team. Moving forward requires us to get a little closer to the patient… Basic physical examination skills support clinical decision-making and enable pharmacists to assume responsibility for managing patients' drug therapy. (p. 59)

Pharmacists were therefore advised that assessors of APA applications would be "looking for evidence of continuous learning that supports your evolving practice, benefits patients, and expands your knowledge, skills and abilities" (Alberta College of Pharmacists, 2013b, p. 1). Pharmacists applying for prescribing authorization were expected to "have completed in-depth training (i.e., training beyond the basic baccalaureate level)" in areas in which they planned to prescribe (Alberta College of Pharmacists, 2008c, p. 11). Engagement in professional

development such as continuing education courses and certification programs in specialty areas such as diabetes control contributed to pharmacists' ongoing education and furthered their expertise. As in the discussion above about variations, their level of education was a factor in the type of prescribing expected of the pharmacist. The tensions in the discourse between these opposite messages, namely that pharmacists have expertise but pharmacists need expertise, emphasized the need for ongoing professional development and education in order for pharmacists to be accessible in the prescribing role.

Consequences. Prescribing pharmacists established limits on their own prescribing and developed their abilities to prescribe in specialty areas. Although no official formal limits were imposed for prescribing with respect to specific drugs or conditions, pharmacists were required to choose specific practice areas for prescribing, for example, diabetes control, when applying for APA. In addition, they needed to provide evidence of formal education and continuing education related to the practice area. The Alberta College of Pharmacists (2008c) noted that in the APA peer review process, "assessors are looking for connection between: your learning, the practice area(s) in which you intend to use your additional prescribing authorization, and initial access prescribing and/or managing of ongoing drug therapy" (p. 1). While the requirements for APA stipulated that pharmacists must identify practice areas for prescribing, the Alberta College of Pharmacists did not recognize this requirement as a limitation: "Additional prescribing authorization does not limit your prescribing to the drugs or disease states described in your application. Your personal competence limits what and when you prescribe" (Alberta College of Pharmacists, 2009a, Winter, p. 1).

Along with specifying areas for prescribing, pharmacists were also required to describe anticipated prescribing outside of their practice area: "Assessors need to see that you have

considered when you may or may not prescribe outside the area(s) you have identified and that you have a clear understanding of how prescribing outside your area might be different from your identified area" (Alberta College of Pharmacists, 2008d). The Alberta College of Pharmacists (2015, July/August) reinforced the need for knowledge and expertise pertaining to when not to prescribe:

> It is not only important to understand what you do know about the etiology of a condition and its treatment, it is equally important to be conscious about what you don't know; and perhaps even more important to consider this information in the context of what you "know" and "don't know" about the patient and the specific situation. You must restrict your prescribing within the limits of your knowledge and competence. (p. 3)

The texts offered stories of pharmacists who focused on the prescribing role in specific specialty areas of practice. For example, one case is described as follows: "In 2008, Jason received both his Additional Prescribing Authorization and Administering Injections and Immunizations Authorization. In 2009, he continued to expand his scope of practice by writing his Certificate in Travel Health (CTH) exam in Budapest" (Alberta Pharmacists' Association, 2014a, p. 10).

The idea of limiting prescribing to a specific area of expertise resulted in unintended consequences and subsequent modifications to the APA Guide and application process. One such consequence was that pharmacists showed reluctance to apply for APA because they did not identify as having a specific area of expertise. One pharmacist stated, "I had always intended to acquire my APA, but felt that I was lacking a specialty (i.e., diabetes educator, asthma educator, anticoagulant management, etc.) that would allow me to write up the 'perfect cases' for my application" (Alberta Pharmacists' Association, 2013b, p. 4). Pharmacists with specialty practice areas described challenges with the application process:

> The most challenging aspect of the application for me was that I really tried to look at the application from two sides: using an area of expertise such as diabetes or anticoagulation and the more generalized prescribing – providing topical creams or antiviral drugs. I knew there was a balance and I wanted to address that in my application. (Alberta College of Pharmacists, 2008, November/December, p. 7)

Advice provided to fellow pharmacists included developing a "practice niche" and selecting "one area to focus on" (Barry & Pearson, 2010, p. 59). There was the idea that "specialization is how the pharmacy profession is evolving. If you are interested in specializing make sure you can back it up with knowledge, education and if available, certification" (Alberta Pharmacists' Association, 2014a, p. 10).

Confusion over the need to have advanced education or practice in a specialty was apparent the year following prescribing implementation. The Alberta College of Pharmacists (2009a, Winter) published a special newsletter to separate "fact from fiction":

> FICTION: Additional prescribing authorization is only for… If you think this sentence ends with hospital pharmacists or Pharm Ds or pharmacists who work in specialized settings or pharmacists who have hours of extra time to fill out paperwork, think again. This is only one of the many misconceptions we at ACP have heard about additional prescribing authorization. Now, we'd like to help you get the facts. Additional prescribing authorization is helpful to pharmacists in a variety of settings, from all different educational backgrounds, with all different kinds of experience. (p. 1)

The Alberta College of Pharmacists continued to encourage pharmacists to apply for APA, emphasizing that pharmacists had the expertise required for prescribing: "The time is now. It is the beginning of a new year so why not make it the beginning of a new practice. You are the

medication expert and you should avail yourself of all the tools at your disposal to use that expertise for your patients" (Alberta College of Pharmacists, 2009b, Winter, p. 12).

The emphasis on prescribing in specific practice areas influenced pharmacists' understanding of the implementation of prescribing in their profession and the requirements for APA. Fewer pharmacists than anticipated applied for APA in the early years, with only 220 pharmacists (5%) in Alberta qualifying for APA between 2007 and 2012. The Alberta College of Pharmacists attempted to dispel the idea that pharmacists needed specialized areas of practice and education:

> You do not have to have "specialist" training or work in a specialized environment. If you practice and document according to the Standards for Pharmacist Practice, you should already have everything you need to apply for additional prescribing authorization. You may be more ready than you think! (Alberta College of Pharmacists, 2009a, Winter, p. 12)

In addition, the discourse from the Alberta College of Pharmacists reinforced this message: "You do not need to be a specialist to qualify for additional prescribing authorization, nor does receiving it make you a specialist" (Alberta College of Pharmacists, 2009c, Spring, p. 10). Later communication more directly clarified the term "specialist" in relation to pharmacists: "The Pharmacist and Pharmacy Technician Regulation restricts use of the term specialist; and the Pharmacy and Drugs Regulation restricts a licensee or proprietor from identifying themselves as a pharmacy that offers specialized services" (Alberta College of Pharmacists, 2015, December, p. 3).

When the APA Guide was updated in 2013, references to practice areas and specialty areas were de-emphasized or removed. Instead of selecting areas from a list pertaining to "[in]

what practice area(s)… [pharmacists] anticipate[d] prescribing" (Alberta College of Pharmacists, 2008a, p. 10), pharmacists were required to list the "MOST COMMON conditions/disease-states for which patients under your care seek treatment" (Alberta College of Pharmacists, 2013c, p. 1). One of the questions used to assess eligibility for APA was deleted: "In the last five years, have you completed education or training related to the area(s) in which you anticipate prescribing?" (Alberta College of Pharmacists, 2008a, p. 6). It was replaced with one statement in a list of criteria indicating pharmacists must "have and maintain the necessary knowledge, skills and attitudes and clinical judgment to enhance patient care" (Alberta College of Pharmacists, 2013b, p. 2). This change must be considered as a factor encouraging pharmacists to apply for APA, along with other factors outlined in later communications, such as employer support and the introduction of the Compensation Plan, which resulted in an increased number of pharmacists with APA.

Interprofessional collaboration. Interprofessional collaboration is a "powerful global discourse" in health care (Kitto, Reeves, Chesters, & Thistlewaite, 2011, p. 209) emphasizing the need for health care teams to improve outcomes for patients with complex health problems and chronic diseases (Lingard et al., 2017). In the texts analyzed in this study, pharmacists were constructed as collaborators and members of the health care team. They were positioned by the Alberta College of Pharmacists (2007, June) as working "collaboratively with other regulated health professionals" (p. 1) in all prescribing activities. Collaboration was seen as an "integral component to pharmacist prescribing and medication management" (The Canadian Pharmacists Association, 2011, p. 1). The analysis identified variations in how pharmacists were constructed as collaborators, depending on their practice location. Pharmacists in hospital practice were positioned as experienced collaborators working in an ideal setting for prescribing. Pharmacists

in community practice settings were portrayed as having more challenges collaborating due to their lack of access to patient information and lack of proximity to other health care professionals.

Independent prescribing emerged as a topic of tension in the discourse. While the idea of independent prescribing by pharmacists and the idea of pharmacists as collaborators appeared to be incompatible, these ideas were often presented in the same text as concepts that could co-exist harmoniously in practice. The discourse of interprofessional collaboration facilitated approval of pharmacists prescribing in Alberta and was positioned as a mechanism to improve patient care and support the health care system. A consequence of this discourse was that collaboration with other health care providers, most notably physicians, became central to the APA application process. The initial requirement for pharmacists to submit letters of collaboration positioned physicians as gatekeepers of pharmacist prescribing and was perceived as a barrier for pharmacists to apply for APA. Aspects of the discourse of interprofessional collaboration are examined in more detail in the sections that follow.

Variations. No single, shared definition of collaboration was apparent in the texts. Various terms were used in association with collaboration, such as communication, cooperation, and information exchange. The Alberta College of Pharmacists noted that "depending on the task and practice environment, different levels of information exchange with collaborating health care professionals is sometimes necessary" (Yuksel et al., 2008, p. 2127). Levels of collaboration varied, and pharmacists were advised to "determine the level of collaboration or communication that is necessary" for each prescribing decision (Alberta College of Pharmacists, 2015, May/June, p. 1). The following definition of collaboration by Way, Jones and Busing (2000) was presented in one text developed by the Alberta College of Pharmacists as an "interprofessional

process of communication and decision making that enables the separate and shared knowledge and skills of health care providers to synergistically influence the client/patient care provided" (Alberta College of Pharmacists, 2005, p. 1). This interprofessional collaboration process was dependent on access to and sharing of information.

Texts from the pharmacy organizations included in the dataset emphasized different aspects of collaboration. The Canadian Pharmacists Association (2011) highlighted the importance of access to information: "Pharmacists require access to the patient's relevant health information, which may include diagnosis, therapeutic intent and laboratory results" (p. 1), whereas the Canadian Society of Hospital Pharmacists emphasized "sharing of information among health care professionals and with patients" (Canadian Society of Hospital Pharmacists, 2009a, p. 1). The Alberta College of Pharmacists focused on the "collaborative environment" needed for collaboration as an information-rich environment where pharmacists were able to access and share information. This environment was described as critical for pharmacists' prescribing role: "A critical part of the prescribing role would be practising within a collaborative environment in which necessary patient information is available to the pharmacist to support informed decisions" (Alberta College of Pharmacists, 2004, p. 19). Access to information and information sharing in the pharmacy practice environment were therefore seen as essential to collaboration.

One variation identified in the analysis related to whether or not collaboration required co-location by health care professionals. The Canadian Pharmacists Association's (2011) statement on pharmacist prescribing emphasized that collaboration "includes close contact and ongoing two-way communication" (p. 1). While co-location with a physician, or another health care professional, was not essential, it was emphasized in the texts. Pharmacists practicing in a

hospital or specialty clinic setting were assumed to be co-located with physicians. The Canadian Society of Hospital Pharmacists (2002, February 5) boasted that "pharmacists in hospital settings have demonstrated that they can work collaboratively with physicians, nurses and other health care professionals" (p. 14) and their "members have a longstanding reputation for… working collaboratively" (Pipa, 2004, April 27, p. 1). Hospital pharmacists were described as having "established excellent collaborative relationships with their physician and nursing colleagues" (Canadian Society of Hospital Pharmacists, 2002, February 5, p. 18). Benefits of co-location with team members were listed in Alberta College of Pharmacists' newsletters. A hospital pharmacist described the potential of ongoing information sharing facilitated by shared physical space:

> One of the unique features of the multidisciplinary team that I work with is that we all share the office space together. We have frequent updates between me, the nurses and physician regarding new and follow up patients… sharing information and providing the best patient care possible. (Alberta College of Pharmacists, 2008, July/August, p. 7)

Collaboration involving pharmacists working in community pharmacy settings was framed differently than that for pharmacists working in settings co-located with other health care professionals. In some of the texts, community pharmacies were not considered alongside other collaborative environments. One publication by the Canadian Society of Hospital Pharmacists (2016) defined collaborative health care settings as "hospitals, long term care institutions, mental health institutions, rehabilitation institutions, multihospital systems, multidisciplinary family health/primary care clinics, perioperative and ambulatory care clinics, and other health care systems" (p. 15). Community pharmacies were not specifically included in the list. There was a certain degree of skepticism as to whether or not community pharmacists would be able to

collaborate effectively with other health care professionals due to their lack of proximity to other health care professionals and access to information. When prescribing was first discussed by the Alberta College of Pharmacists, collaboration by community pharmacists was not assumed:

> Pharmacists working in community pharmacies or independent practices and providing comprehensive drug therapy monitoring programs must demonstrate that they have access to the relevant patient health information (e.g., diagnosis, lab test results), are maintaining appropriate documentation (e.g., patient records), and are communicating patient progress and treatment information to the health team members involved with that patient. (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 19)

The community pharmacy practice environment was portrayed as needing additional support by the profession to support collaboration: "Initially, there will be a need to closely monitor and support pharmacists in these practice settings who prescribe" (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 19).

Interprofessional collaboration was not considered impossible for pharmacists practicing in community pharmacy settings. Collaboration was viewed as essential, yet flexible "depending on the task and practice environment" (Yuksel et al., 2008, p. 2127). The Canadian Society of Hospital Pharmacists observed that "even if providers do not work in the same physical space, resources and energy can be directed toward timely and effective communication between providers by utilizing technology more fully" (Canadian Society of Hospital Pharmacists, 2009b, p. 6). In other words, additional effort to collaborate would be required in some practice environments. One pharmacist described two different experiences depending on the practice environment: "In retail [community pharmacy] and… at the [primary care network] I get a

different kind of collaboration with other health professionals" (Alberta College of Pharmacists, 2008, November/December, p. 8). Collaboration by pharmacist prescribers therefore differed depending on the practice setting and whether or not they were co-located with physicians and other health care providers.

Function. Collaboration was seen as essential for pharmacist prescribing to succeed. The discourse of interprofessional collaboration viewed pharmacists' prescribing as beneficial to the public. In Canada, collaboration between health care professionals, including pharmacists on health care teams, has been deemed important for primary health care reform (Romanow, 2002) and is seen as a key strategy for the health system "to optimize its use of the pharmacy profession in ensuring that medications are used safely and rationally" (Task Force on a Blueprint for Pharmacy, 2009, p. 13). When pharmacist prescribing was initially proposed, the Alberta College of Pharmacists emphasized that collaboration would combine the expertise of pharmacists and other health care professionals: "In complex situations, there will be significant interaction, information sharing, and collaboration between pharmacists and other members of the health team, accommodating the synergy of one another's expertise. This has the potential for better decisions" (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 18). The Alberta College of Pharmacists asserted that pharmacists' prescribing would facilitate "collaboration and cooperation among health care providers, especially with respect to drug therapy (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 13).

One intended function of the discourse on interprofessional collaboration was to recognize the contributions of all pharmacists, regardless of practice setting, to the health care team and the health care system as a whole. In a report submitted to the Commission on the Future of Health Care in Canada, the Canadian Society of Hospital Pharmacists (2002, February

5) asserted that "by working collaboratively with patients and other members of the health care team, pharmacists can make a difference in the health of patients, while positively impacting overall health care costs" (p. 9). The Society emphasized that a "multidisciplinary team approach, with the pharmacist as an integral member, is needed throughout the system, from primary to tertiary care" (Canadian Society of Hospital Pharmacists, 2002, February 5, pp. 18–19). Positioning pharmacists as members of health care teams helped to facilitate their new prescribing role. Pharmacists practicing in hospitals and specialty clinics co-located with physicians were viewed as team members. The discourse on interprofessional collaboration constructed all pharmacists, including the approximately 70% of practitioners working in community practice (Canadian Pharmacists Association, 2015a), as members of the health care team. As team members, pharmacists could effect positive change in the system.

Emphasizing pharmacists' collaboration within the prescribing model in Alberta strengthened the initial proposal for pharmacists to be granted prescribing authority, which is relevant given the fact that the idea of independent pharmacist prescribing was controversial at the time (Gray, 2002). As described in Chapter Two, pharmacist prescribing did not have unanimous support, especially from physician groups (Schindel & Given, 2013). Emphasizing collaboration was a way to gain support from physicians and physician groups:

> The Canadian Medical Association and the American Medical Association have both expressed opposition to pharmacist prescribing. Perhaps the best way to convince these groups is to approach the issue from a grassroots level, by working collaboratively with our colleagues to demonstrate that our goal is to complement (not replace) the role of the physician. (Mansell & Hopf, 2014, p. 391)

The Alberta Pharmacists' Association (2006) acknowledged that "throughout the process of achieving prescribing authority, the common goal among health care professionals has been to enhance patient care for Albertans through collaborative practice, and this goal has been strongly supported by the Alberta government" (p. 1). Collaboration was seen as improving patient outcomes and experiences with the health care system in keeping with the goals of government. Pharmacists as collaborators could contribute to improved patient care: "Optimal drug therapy is best achieved when pharmacists and physicians work together, and the pharmacist is actively involved in determining drug therapy" (Alberta College of Pharmacists and Pharmacists' Association of Alberta, 2003, September, p. 2).

Tensions. The role of pharmacists as independent prescribers emerged as a source of tension in the discourse on interprofessional collaboration. As noted previously, the prescribing model in Alberta was framed as an independent pharmacist prescribing model within a collaborative practice environment. When pharmacist prescribing was first discussed, independent prescribing by pharmacists was considered controversial by hospital pharmacists (Gray, 2002, p. 92). The Canadian Pharmacists Association cautioned: "Some pharmacists need to learn how to work effectively with health partners who may be initially resistant… change is therefore required from both pharmacists and other health partners, particularly when starting to work together as a team" (Canadian Pharmacists Association, 2016, p. 15). Respecting roles and the importance of collaborative relationships were highlighted by the Canadian Society of Hospital Pharmacists: "Ideally, open communication and a collaborative spirit will allow these relationships to be complementary, each one enhancing the others" (Canadian Society of Hospital Pharmacists, 2009b, p. 5). Pharmacist prescribers in community practice settings, compared to hospital pharmacists, were described as facing more challenges in terms of

collaborating with physicians. As one community pharmacist stated, “My biggest concern was how I was going to be received by the other health care professionals, especially the physicians. I wanted to create collaborative relationships, not start a turf war” (Alberta College of Pharmacists, 2011, January/February, p. 15). Another community pharmacist believed that forming collaborative partnerships with physicians would facilitate the “challenging transition” to the prescribing role (Alberta College of Pharmacists, 2008, November/December, p. 8). Pharmacists who invested in developing collaborative relationships realized several benefits: “Additional prescribing authorization has also helped me develop some really rewarding collaborative relationships with other health professionals” (Alberta College of Pharmacists, 2009b, Winter, p. 2).

Pharmacists were constructed as both independent prescribers and collaborators in the texts in the dataset. Some pharmacists were portrayed as having a preference for collaborative prescribing over independent prescribing. The Alberta Pharmacists’ Association (2006) noted, “pharmacists want to work collaboratively with physicians to better serve patients” (p. 3). The Canadian Society of Hospital Pharmacists asserted, “most pharmacists who want or are pursuing prescribing privileges support a model of collaborative practice” (Pearson et al., 2002, p. 56). However, some pharmacists wanted independent prescribing because of the ability “to exercise a different level of autonomy and independence in decision making” (Alberta College of Pharmacists, 2015, July/August, p. 3).

Collaboration and independence were presented as concepts that could co-exist harmoniously in practice: “The roots of collaboration start with individual health professionals. Collaboration is based on a personal commitment to the well-being of common clients, and includes trust, respect, and open and effective communication” (Alberta College of Pharmacists,

2005, p. 1). Stories of how pharmacists framed experiences as collaborative prescribers appeared in the newsletters: “I still work collaboratively and inform doctors with progress notes but I don’t have to wait for authorization on prescribing decisions I am confident with” (Alberta College of Pharmacists, 2008, September/October, p. 7). Collaboration in this example highlights the information exchange associated with independent prescribing decision-making. Other pharmacists’ stories emphasized shared decision-making. For example, one pharmacist “collaborated with the patient’s doctor and made suggestions and recommendations based on her knowledge. At discharge, the physician gave the approval for her to manipulate the patient’s meds – ordering, monitoring, and collaborating with the home care nurse” (Alberta College of Pharmacists, 2008, July/August, p. 8).

Consequences. In the discourse on interprofessional collaboration, the emphasis was on collaboration in the prescribing model. When the Alberta College of Pharmacists began to pursue approval of pharmacist prescribing, they aimed at independent prescribing, that is, for pharmacists to “serve the needs of the health care system by independently prescribing while working interdependently with other health care professionals” (Yuksel et al., p. 2128). The Alberta College of Pharmacists recognized “the importance of a multi-disciplinary approach [including] independent prescribing by pharmacists within a collaborative health team environment” (Bacovsky, 2003, p. 2). Pharmacist prescribing and collaboration were coupled in many texts, along with the argument that independent pharmacist prescribing was necessary to address current health policy concerns. This approach was successful in part because of the emphasis on collaboration and membership on health care teams. However, independent prescribing by pharmacists was downplayed in messages to both pharmacists and physicians: “There are very limited circumstances when a pharmacist would make an independent

prescribing decision" (Alberta College of Pharmacists and Pharmacists' Association of Alberta, 2003, September, p. 2) and "most pharmacist prescribing will be conducted collaboratively" (Alberta College of Pharmacists, 2007, June, p. 2).

One consequence of the discourse on pharmacists as collaborators was that collaboration with other health care providers, specifically other prescribers such as physicians, became central to the application process for APA. The requirements of the initial prescribing approval process implied physician approval for pharmacist prescribing. When the APA application process was introduced in 2007, pharmacists were required to demonstrate collaboration in their practice. First, they needed to produce two letters of collaboration. The purpose of these letters was "to demonstrate that [they] are able to and do form collaborative working relationships with other health professionals who may work with [them] to optimize [their] patients' health outcomes" (Alberta College of Pharmacists, 2008a, p. 23). Second, pharmacists were required to submit narrative descriptions of actual patient cases from their practice highlighting communication with other health care professionals, involvement with other health care professionals in patient care, and documentation of the care provided. When providing advice to pharmacists applying for APA, the Alberta College of Pharmacists emphasized aspects of collaboration as outlined in the Standards of Practice:

> Assessors are looking for concrete evidence of: how you work with each health professional listed in your application to establish mutual goals in therapy for your patients, how you ensure effective sharing of patient information, how you ensure ongoing effective communication with each of your two collaborators, how these relationships have helped you to enhance patient safety, and how you ensure that

> expectations of each participant in the collaborative relationship are clear. (Alberta College of Pharmacists, 2008d, p. 2)

For many, the letters of collaboration were viewed as an impediment; some pharmacists were dissuaded from applying for APA. Descriptions of pharmacists' experiences with the APA process were published in newsletters. One pharmacist expressed dissatisfaction with the process: "I think the figures speak for themselves. You have to ask the question, 'Why is it that ten times as many pharmacists offer injections than prescribe?' It is the application process that stops me prescribing" (Alberta College of Pharmacists, 2011, May/June, p. 10). The requirement for letters of collaboration positioned physicians as gatekeepers for pharmacists applying for APA. The Alberta College of Pharmacists minimized the importance of the letters, positioning them as forms required for the APA application: "Collaboration letters are not letters of support or endorsement. And they're not even really letters! They are the form on page 34 of the Guide to Receiving Additional Prescribing Authorization. The health professionals simply need to 'fill in the blanks'" (Alberta College of Pharmacists, 2009a, Winter, p. 4). Collaboration was framed as a mechanism "to confirm productive and dependable two-way communication between you and the other health professionals who care for the same patient" (Alberta College of Pharmacists, 2009a, Winter, p. 4). When the APA application process was evaluated in 2012, the Alberta College of Pharmacists removed the requirement for letters of collaboration, recommending that "the requirement to submit two (2) letters of collaboration be removed and that collaboration be assessed as part of the evaluation of care provided" (Alberta College of Pharmacists, 2013b, p. 4). While other contextual factors likely influenced pharmacists' decisions to apply for APA, such as introduction of the Compensation Plan for community pharmacies in 2012, the number of pharmacists applying for and receiving APA increased

dramatically following changes to the APA application process in 2013, from 220 in 2012 to 841 in 2014 (see Figure 4.2. p. 74).

Moving forward. In the discourse examined in this research, pharmacist prescribers were constructed as moving forward as individual practitioners with opportunities to elevate their practice to new levels, enjoy greater satisfaction with their work, and contribute more to patient care and the health care system. The discourse related to moving forward framed pharmacy as a profession undergoing dramatic and ongoing change associated with pharmacist prescribing. Approval of pharmacist prescribing in Alberta, previously considered impossible, represented a significant change for the pharmacy profession. Pharmacist prescribing required changes to the day-to-day work of pharmacists. While the changes were viewed as positive, they required shifts from traditional roles and time to be fully realized. Tensions in the discourse arose between old and new practices. The discourse of moving forward functioned to motivate pharmacists to adopt prescribing in their practices. Consequences of the discourse were related to enrichment of the practice of individual pharmacists and a sense of incompleteness until the time when all pharmacists attain APA and implement prescribing in their practices.

Variations. The discourse related to moving forward included inspirational messages outlining changes for the profession and for individual pharmacists as prescribers:

> Pharmacists have come a long way as health care professionals. Within the last century we have evolved from compounders of medicines, to dispensers of medications, to now having direct involvement in therapeutic choices with and for our patients. That's substantial growth for our profession in a relatively short period of time. (Gray, 2002, p. 91)

Pharmacist prescribing represented dramatic and significant positive changes in the profession, with a focus on the benefits for pharmacists and the health care system. A formalized prescribing role was seen as "the next logical step" (Pearson et al., 2002, p. 62) and "an opportunity to continue the transition and constructive evolution of the profession" (Pearson & Dalen, 2008, p. 351). Professional change was perceived as ongoing. In Alberta, pharmacist prescribing was considered "the catalyst to move the profession forward" (Alberta College of Pharmacists and Pharmacists' Association of Alberta, 2003, September, p. 2).

Pharmacist prescribing represented a "monumental shift" (Alberta College of Pharmacists, 2009a, Winter, p. 5) for the profession. It was hoped that prescribing would become the "normal mode of contribution" (Barry & Pearson, 2010, p. 59) by pharmacists to the health care system. Pharmacists themselves viewed prescribing as beneficial for the profession as a whole; they "wanted to be part of this groundbreaking step for the pharmacy profession in Alberta" (Alberta College of Pharmacists, 2008, July/August, p. 8). Change in the profession was equated with hard work for the good of all:

> What a tremendous amount of change our profession has gone through in less than a decade! These changes were certainly not always easy. We faced many challenges; from economic pressures, to having to adapt our skill set in a rapidly changing practice environment. Despite these challenges, we have persevered. Dr. Martin Luther King, Jr. was quoted as saying, "If you can't fly, then run; if you can't run, then walk; if you can't walk then crawl; but whatever you do, you have to keep moving forward." Over the last several years it may have felt like you were flying or running some days and it may have felt like you were walking or even crawling on others. Ultimately, whether we were running or walking, flying or crawling, we continued to move our profession forward.

> And importantly our patients have benefited the most. (Alberta Pharmacists' Association, 2014b, p. 2)

Pharmacists were positioned as "constantly evolving and… readying themselves to provide more complete care to their patients" (Alberta College of Pharmacists, 2009a, Winter, p. 2). When pharmacist prescribing was approved, pharmacists were described as taking pharmacy practice "to the next step" (Alberta College of Pharmacists, 2009a, Winter, p. 1) and "on the road to providing the care they are truly capable of… ready to forge ahead" (Alberta College of Pharmacists, 2008, November/December, p. 8). One pharmacist stated: "I did not think it would happen in my lifetime" (Bacovsky, 2012, p. 421). The change was not expected: "If someone had asked me 10 years ago if I thought it was possible to be practising as an independent clinician, prescribing for my patients and injecting them with vaccinations, I am not certain I would have believed it was possible" (Alberta College of Pharmacists, 2011 July/August, p. 5).

The Canadian Society of Hospital Pharmacists acknowledged pharmacists' prescribing as a mechanism for "practice advancement for hospital pharmacists" (Howorko, 2010, May, p. 1). Pharmacists who attained APA were celebrated for their achievement. The Alberta College of Pharmacists (2008, October) acknowledged individual pharmacists "who stepped forward to advance their practice and the service they offer their patients" (p. 11). There was a definite sense of forward momentum embedded in the descriptions of pharmacists who sought APA.

Another variation in the discourse of moving forward emphasized that change was not complete despite the achievement associated with prescribing authorization. The idea that pharmacists must continue to evolve their practices and innovate is captured in this example:

> What I am most excited about, is to keep moving the profession forward by being innovative in my practice. The scope of practice of pharmacists in Alberta has been

> expanded, but now we need to find innovative ways to make sure we are fully utilizing it. (Alberta Pharmacists' Association, 2015, p. 7)

The moving forward discourse constructed pharmacists as members of a profession undergoing tremendous change, evolving as they adopt the prescribing role.

Function. The moving forward discourse functioned to motivate pharmacists to adopt prescribing in their practices. Various motivators were identified in the texts. Pharmacist prescribers improved patient care and the delivery of health care services. The Alberta College of Pharmacists advised that "to keep pace, the health care system must mobilize all its resources for the maximum benefit of patients. This means that you are being called on to practice to your full potential" (Alberta College of Pharmacists, 2008, March/April, p. 2). This quote implied that pharmacists would be left behind if they did not "keep pace" and contribute more to patient care. Some pharmacists spent time "trying to convince fellow pharmacists that this expanded scope of practice was essential for the profession to grow, and even for the profession to survive" (Bacovsky, 2012, p. 421).

Prescribing authorization was described as a way for prescribing pharmacists to contribute to the health care system by saving time for both physicians and patients. For instance, one pharmacist described how her new prescribing authority improved the service provided to patients: "I am able to provide education, switch products, make product recommendations, and do follow-up dosages with less hassle and less time spent waiting to get approval for certain things" (Alberta College of Pharmacists, 2008, November/December, p. 7). By using their prescribing authority, pharmacists could save physicians' time by reducing "some of the workload on the health care team—the physician dealing with… routine prescriptions, as well as the pharmacist/nurse having to track down the physician for certain prescriptions" (Alberta

College of Pharmacists, 2008, November/December, p. 9). Although pharmacy practice was seen as advancing through pharmacist prescribing, the role of pharmacists as prescribers was also positioned as benefitting the work of physicians.

In addition to enticing pharmacists to adopt prescribing in their practice, the moving forward discourse implied that if they did not take up the new prescribing role, they would "drive away in the family sedan", in other words, miss opportunities to advance pharmacy practice and contribute fully to the health care system (Alberta College of Pharmacists, 2011, March/April, p. 1).

Tensions. A tension between old and new practices emerged in the discourse on moving forward. As in the discourse related to pharmacists as drug therapy experts, pharmacists were positioned as having a long history of prescribing that pre-dated legislative changes. These historical roots extended back to the profession's origins:

> Apothecaries prescribed as well as compounded and dispensed drugs. In the 18th and 19th centuries, the role of the pharmacist became more focused on compounding and dispensing. This trend reversed itself in the middle of the 20th century with the evolution of clinical pharmacy, pharmaceutical care, and now prescribing. (Bacovsky, 2003, p. 7)

In the preceding quote, pharmacists' past history as prescribers was connected to the current period. There is a sense that pharmacists were prepared for the prescribing role: "In essence, pharmacist prescribing has been going on for some time in the form of recommendations for over-the-counter medications, approved institutional protocols or programs, and provisions of provincial regulatory authorities… that allow pharmacists to provide emergency supplies of medications" (Pearson & Dalen, 2008, p. 353). The characterization of pharmacists and the pharmacy profession as "moving forward" highlighted the dualities of the new prescriber role for

pharmacists. The "normal of the future" for pharmacists as prescribers was both momentous and commonplace, and the prescribing role was both old and new.

Moving forward was associated with changes in daily practice and the way pharmacists spend their time. Time allocated to traditional professional activities, such as medication dispensing, may now be spent on professional activities associated with prescribing: "This shift is placing increased focus on patient care rather than drugs, results rather than processes, decisions rather than recommendations, inter- and intra-professional teamwork rather than isolated practices" (Alberta College of Pharmacists, 2008b, p. 3). Many of the texts cautioned pharmacists to "clearly understand how assuming [prescribing] authority will affect their role" and urged them to consider if "they have the time and support to complete all of their professional responsibilities" (Pearson et al., 2002, p. 61). Pharmacists themselves recognized the need for support from their pharmacy team "including pharmacy technicians, in order to successfully transition to a more clinical role" (Alberta College of Pharmacists, 2016, p. 10). New demands on pharmacists necessitated "finding the time to complete the appropriate documentation", which was described as "challenging" (Alberta College of Pharmacists, 2007, p. 8). Pharmacists asserted that the time required to fulfill the professional responsibility of prescribing meant "abandoning the traditional 'banker's hours' that many clinical pharmacists currently enjoy" (Barry & Pearson, 2010, p. 59). In this example, the shift to a prescribing role was predicted to influence pharmacists' professional work hours and the shape of their day. Pharmacists were reminded not to "expect the change to occur overnight, but [to] persevere and focus on demonstrating your contributions to improved patient care. Document it! Measure it! Perhaps even publish it! Your efforts could help demonstrate the valuable role of pharmacists and inform a broad audience" (Barry & Pearson, 2010, p. 59). The professional responsibility of

prescribing would therefore require pharmacists to change the structure of their workday around the demands of the prescribing role.

Pharmacists authorized as prescribers were positioned as achieving a higher level of practice. APA afforded pharmacists "increased opportunities to provide patients with a higher level of care" (Alberta College of Pharmacists, 2016, p. 10) and required them to "exercise a different level of autonomy and independence in decision making than their unauthorized peers" (Alberta College of Pharmacists, 2015, July/August, p. 3). There was a sense that pharmacists were "elevated in the eyes of the public" (Alberta College of Pharmacists, 2011, September/October, p. 2); appreciation for pharmacists' abilities would continue to increase "as more patients start to expect clinical services from their pharmacist… the public perception of what a pharmacist can do will change for the better" (Alberta Pharmacists' Association, 2014b, p. 7). Pharmacy organizations in Alberta viewed government approval of pharmacist prescribing as formal recognition of "the important role pharmacists play in patient care [and]… the trust Albertans and the government have in pharmacists" (Alberta College of Pharmacists, 2008, March/April, p. 1). The pharmacy profession constructed pharmacist prescribers as being recognized for their efforts in advancing pharmacy practice.

Another tension in the discourse of moving forward was that prescribing was not adopted by all pharmacists. While pharmacists were encouraged to "elevate their practice to the point where they can obtain additional prescribing authorization" (Alberta College of Pharmacists, 2008, July/August, p. 9), not all pharmacists sought APA. In the first few years after prescribing was approved in Alberta, the number of pharmacists seeking APA was lower than expected: "Many pharmacists are satisfied with the status quo and will prescribe only under pressure"

(Bacovsky, 2012, p. 422). A tension was evident in the discourse related to contrasting ideas of moving forward and maintaining the status quo:

> Pharmacists have seemingly been handed the keys to the Rolls Royce, but have instead chosen to leave home in the family sedan. It is conceivable that [there was insufficient financial or marketing support], but pharmacists must also question their own efforts to embrace this gift. Some argue this will only take time, but others state that for such an exciting initiative, there's no time to wait. (Alberta College of Pharmacists, 2011, March/April, p. 1)

Prescribing authority was positioned as a luxury gift that pharmacists should embrace. The time it was going to take to achieve "such an exciting initiative" was a worthwhile expense for this professional "gift". Prescribing was framed as an opportunity the profession could not ignore. Since APA was not mandatory for pharmacists in Alberta, the change in the profession was slow and incomplete at the time of publication of these texts.

Consequences. One consequence of moving forward with the prescribing role was associated with achievement: "increased purpose, professional pride, and satisfaction" (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002, p. 5). In the discourse on moving forward in pharmacy practice, pharmacist prescribers were constructed as able to "provide more comprehensive, effective patient care" (Alberta College of Pharmacists, 2010, Spring, p. 2) and encouraged to enhance "the quality of patient care and optimization of therapeutic outcomes" (Pearson et al., 2002, p. 5). Pharmacists who applied for APA expressed "a general feeling of excitement and improved job satisfaction as they expand their clinical focus in fulfilling their scope of practice" (Alberta College of Pharmacists, 2016, p. 7). One community pharmacist described the changes after attaining APA:

> Three years ago, I didn't even want to be a pharmacist. I wasn't feeling satisfied with the job I was performing. But now, it feels so good. I have turned my career into something I take pride in and enjoy. It's so rewarding to help patients become stable and healthy. And I get to have stronger relationships with the other health professionals in the community. (Alberta College of Pharmacists, 2008, March/April, p. 2)

Pharmacists welcomed greater responsibility and new professional collaborations: "I've gotten a lot of satisfaction. I am able to make my own decisions and I am responsible for the outcomes. I'm getting referrals from physicians for patients who aren't necessarily filling their prescriptions at the pharmacy" (Alberta College of Pharmacists, 2011, January/February, p. 15). Growth in professional services was also associated with the prescribing role:

> Having my APA will be especially helpful in increasing the pharmacy services that I am able to perform. I find that I use my APA designation daily and am more satisfied in being able to provide many more services than before without having to refer patients to a prescriber to obtain an effective treatment that I have already assessed to be appropriate for them. (Alberta Pharmacists' Association, 2013b, p. 3)

Pharmacist prescribing was portrayed as enriching pharmacists' practices. They were authorized to contribute more to patient care and derived satisfaction from the prescribing role.

Continued learning and expanded knowledge were noted as benefits of the prescribing role. Pharmacist prescribers were "motivated by continued learning and inspired to offer their patients better care" (Alberta College of Pharmacists, 2009c, Spring, p. 10), as evidenced by this quote: "Learning is what motivates me. I like applying what I learn to the patients in my care" (Alberta College of Pharmacists, 2015, p. 17). Pharmacists grew their abilities to offer patient care services in their role as prescribers.

Summary

This chapter presented results of the first phase of this study to explore how pharmacists' prescribing role was socially constructed in texts developed by pharmacy organizations. Descriptions of the texts, their contexts, and discourses were presented and the roles of these texts in constructing meaning and influencing actions of individuals and institutions were discussed (Burr, 2003; Gee, 2011; Potter, 2008). Three discourses were identified in the analysis: (1) expertise, (2) interprofessional collaboration, and (3) moving forward. Variations, functions, tensions, and consequences of the discourse were explored.

Pharmacists as prescribers were constructed as highly educated drug therapy experts who prescribed in focused areas of individual expertise. They were seen as occupying an ideal position to take on the prescribing role. However, additional expertise was needed in the areas of teamwork, collaboration, and documentation skills. Pharmacists, especially those practicing in hospital settings, were constructed as collaborators and members of the health care team. Pharmacists practicing in community pharmacy settings were portrayed as having more challenges collaborating with other health care professionals due to their lack of proximity to patient information and to those professionals. Pharmacist prescribers were constructed as moving forward in their careers as individual practitioners with opportunities to elevate their practice to new levels, enjoy greater satisfaction with their work, and contribute more to patient care and the health care system. Pharmacy as a profession was framed as undergoing dramatic and ongoing change. The results of this phase of the study provided a picture of how the profession articulated the prescribing role and how discourse shaped pharmacists' actions, relationships, and identities in their everyday practice and in the context of prescribing. In Chapter Five, the results of the analysis of pharmacists' experiences with prescribing will be

presented and discussed with consideration of the effects of these discourses on pharmacists' actions and their sense of the prescribing role.

Chapter Five: Results and Discussion

This second phase of the study explores pharmacists' experiences with prescribing. The overarching research question in this chapter is, "How do pharmacists make sense of their professional role as prescribers?" Pharmacists from a variety of practice settings were invited to participate in this study. Participants were recruited over an eight-month period, January to August 2014. In total, 31 pharmacists were contacted via email; addresses were provided by the Alberta College of Pharmacists. Twenty-one pharmacists responded to the email invitation and 20 agreed to participate in the interviews. The information environments in which participants practiced were diverse. Levels of education and numbers of years in practice varied among participants. All participants had applied for APA and were granted prescribing authority by the Alberta College of Pharmacists. As noted in Chapter Three, this phase of the study explored pharmacists' experiences using constructivist grounded theory, adapted from Charmaz (2006). Data collected through in-depth, semi-structured interviews with participants provided insight into the prescribing role. The discourses identified in Chapter Four are revisited in this chapter in relation to pharmacists' experiences with the prescribing role. This approach facilitated an in-depth exploration of pharmacists' experiences as authorized prescribers.

This chapter begins with a description of participant demographics, after which the three theoretical categories and the main theoretical concept are presented and discussed. An information behaviour lens illuminated ways that information influenced how pharmacists enact the prescribing role and how their professional identities evolved.

Participant Demographics

Twenty pharmacists with APA practicing in Alberta participated in the study between January and August 2014. All participants had graduated from programs offered by Canadian

universities with a Bachelor of Science degree in pharmacy. Fifteen had graduated from the University of Alberta and five from two other universities, the University of Saskatchewan and Dalhousie University. Nine of the participants had also completed pharmacy-related, post-graduate training including hospital pharmacy residencies (8) and Doctor of Pharmacy degrees (4). Four pharmacists held certifications in specialty areas including asthma, diabetes, geriatrics, and menopause. Two participants were enrolled in part-time programs: one in a Doctor of Pharmacy program and another in a Master's of Business Administration program. Table 5.1 summarizes participant demographics.

Table 5.1

Pharmacist Participants: Summary of Demographics

Years in Practice	**Years with APA**	**Practice Setting**	**Population Centre**	**Employment Status**
One to five (3)	Less than one (5)	Community (8)	Small (2)	Full-time (16)
Six to 15 (5)	One to three (7)	Hospital (5)	Medium (5)	Part-time (4)
16 to 25 (5)	Four to eight (8)	Primary care (2)	Large (13)	
More than 25 (7)		Specialty clinic (5)		

At the time of the interviews, participants had diverse practice experience over a varying number of years, ranging from 3 to 34. The number of years with APA ranged from less than one year to eight years. They practiced in seven different communities in the province of Alberta.

Most participants were employed in full-time positions. Four participants had part-time patient care duties, one to two days per week, in combination with other professional roles such as management or training of other pharmacists and students. Practice settings involving prescribing experience included community pharmacies, hospital acute care services, specialty clinics, and primary care. One participant worked in two practice settings, primarily in primary care and as a part-time pharmacist at a community pharmacy. Table 5.2 outlines participants'

numbers of years in practice, years with APA, and practice areas. All participants were assigned pseudonyms so that they would not be identifiable. Years with APA are expressed in ranges, for example one to three years, to safeguard the identity of participants.

Table 5.2

Pseudonyms, Years in Practice, Years with APA, and Practice Settings

Participant	**Years in Practice**	**Years with APA**	**Practice setting**
Adam	16	4-8	Specialty Clinic
Brooke	10	4-8	Specialty Clinic
Chloe	27	1-3	Hospital
David	3	<1	Community
Delilah	26	<1	Community
Eva	9	1-3	Primary Care, Community
Francine	15	4-8	Community
George	21	1-3	Community
Hannah	5	1-3	Hospital
Isabelle	13	1-3	Community
John	21	1-3	Hospital
Kate	34	4-8	Community
Kimberly	13	<1	Specialty Clinic
Lucas	26	4-8	Hospital
Mary	3	<1	Community
Naomi	30	<1	Community
Olivia	26	4-8	Specialty Clinic
Philip	22	1-3	Hospital
Rachel	20	4-8	Primary Care
Stephen	26	4-8	Specialty Clinic

Pharmacist Experience with Prescribing

The analysis of participants' experience with prescribing, which was based on constructivist grounded theory, produced three categories: (1) integrating information about the prescribing role, (2) limiting and expanding prescribing, and (3) balancing collaboration and independence (Figure 5.1). The main concept emerging from the data, *reconstructing professional identity*, represents how participants realized responsibility for prescribing through

an iterative process of active engagement with prescribing activities as authorized prescribers within the context of their information environments. In the following sections, these categories are outlined in more detail.

Figure 5.1. Theoretical categories.

Integrating Information about the Prescribing Role

Making sense of the prescribing role was a process that involved integrating what was known about the prescribing role with actual prescribing practice as an authorized prescriber. As presented in Chapter Four, the discourse of expertise constructed pharmacists as drug therapy experts engaged in prescribing activities well before pharmacist prescribing was approved in Alberta. Despite not having had official prescribing authority, participants felt prepared for the prescribing role based on their involvement with prescribing activities before they were granted APA by the Alberta College of Pharmacists. Therefore, they did not anticipate changes after APA. However, participants in this current study found there was a distinct difference in their role following APA authorization. Thus, through enactment of the authorized prescribing role, participants' sense of the role changed. They described the prescribing role and the responsibility associated with it as becoming "real". Documentation related to prescribing mediated this change. For some participants, the change occurred when signing a prescription for the first time. For others, it was associated with other prescribing documentation such as notes in charts or

electronic patient records. Details of the participants' experiences related to integrating information about the prescribing role with authority to prescribe are presented in the following sections (Figure 5.2).

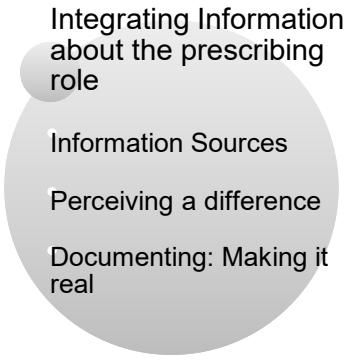


Figure 5.2. Integrating information about the prescribing role.

Information sources. Pharmacists work every day within various information environments. Information was central to how participants in this study made sense of the prescribing role. In this study, participants shared and used information from sources that aided the process of making sense of their role as prescribers. Professionals use a variety of information sources to address their information needs; they acquire information from colleagues, journal articles, books, and their own experiences (Leckie et al., 1996). Information may also come from an individual's background and education, from which they gain understanding of pharmacy practice, professional activities, and information artefacts (Sundin, 2008). Research has shown that relationships are an important source of information and a "significant component of a person's information environment" (Cross, Parker, Prusak, & Borgatti, 2001, p. 100). The information environment is thus more than a collection of static information sources. It can be thought of as the "carrier of meaning" (Dervin, 1997, p. 15, as cited in Sundin, 2008, p. 5).

At the time of this study, legislation permitting pharmacists to prescribe was relatively new in Alberta; it had been in place for eight years. There was a paucity of information from traditional sources, such as professional journal articles or textbooks, describing pharmacists' experiences with the prescribing role. Participants in this study therefore accessed information from professional organizations and drew upon their own prior experiences with prescribing activities to formulate early impressions of the prescribing role. Details of information sources initially accessed by study participants, including texts describing APA, human sources such as colleagues and traditional prescribers, experiences with prescribing activities, and professional education are presented in the following sections.

Texts. As described in Chapter Four, specific texts developed by the Alberta College of Pharmacists played a key role with respect to participants' initial sense of the prescribing role because they provided details about the APA approval process (Appendix A). Pharmacists applying for APA were aware that in order to qualify, they had to meet the criteria outlined in the *Guide to Receiving Additional Prescribing Authorization* (Alberta College of Pharmacists, 2008a). The one text used by all participants was this *Guide*, mostly to prepare their APA applications. It was considered the main information source, as it described "a good prescription, what good prescribing means, what follow-up means, what assessment means, and what knowing your patient means" (Lucas). John stated that this text developed by the Alberta College of Pharmacists "influenced me the most with regards to prescribing". Stephen recalled that "there was really nothing much other than the guides that had been prepared for the [Alberta College of Pharmacists]… Everyone was still trying to figure out how [prescribing] would work". Rachel indicated that the *Guide* "was the only one [text] I really went to". When Lucas spoke with other pharmacists seeking information about prescribing, he recommended using the *Guide*:

"Whenever people would ask me… I wanted to say a hundred times to people, read the guide. Read the guide. Read the guide". Mary found that "the thing that had the most utility was going to the [Alberta College of Pharmacists] website and going through the documents that they had put together". Clearly, the *Guide* influenced participants' initial understanding of the requirements for pharmacists' prescribing in Alberta.

The *Guide* was initially used to prepare participants and frame their prior experiences with the prescribing role when they applied for APA. Similar to other research (Charrois et al., 2012), most participants felt the APA application process to be a challenge, particularly with respect to the amount of time needed to write the application and assemble the required documentation. Participants experienced the process as a guided reflection of their previous prescribing activities and a means of assessment of requirements for the role. In Kate's words, "You had to articulate on paper your thought process and what you do". John found that the APA application process "[made] me reflect on how I practice" and Kimberly saw value "in terms of reflecting on components of my documentation". For some participants, it validated their current practice. Adam recalled that "as I was going through and seeing what all the indicators were… it validated what I was doing in my practice". Other participants identified changes needed for the role during the APA application process. After Mary submitted her application and was granted APA, she "developed kind of a process" for prescribing in her practice setting.

Some participants accessed other information from journal articles. Four participants referred to other information about pharmacist prescribing published in the *Canadian Journal of Hospital Pharmacists*. However, these participants did not cite specific authors, references, or journal article titles; they did not actively seek information about the prescribing role. Instead, they read the articles because of their membership in the Canadian Society of Hospital

Pharmacists, which includes a subscription to the journal. Two participants used specific journal articles as sources of information about pharmacist prescribing. Kimberly recalled reading an article about pharmacist prescribing in Alberta when she was applying for APA:

> The first thing I thought of was that early paper that [Yuksel et al., 2008] had written… That is the first thing that I read that made me go, oh, this is good. I should be on this bandwagon. I should be doing this. But in terms of something that describes what pharmacists prescribing is… I do not know of anything, honestly.

Philip gained insight into prescribing in a specialty area of practice in a journal article "about that pharmacist in New Mexico who was able to prescribe controlled medications". This article was obscure and described prescribing by pharmacists in a specific specialty area relevant to Philip's practice (Dole, Murawski, Adolphe, Aragon, & Hochstadt, 2007).

When asked about other information sources, five pharmacists reported using proprietary learning resources such as decision-making algorithms or documents from their workplaces that provided guidance on how to complete the APA application. Isabelle and Delilah referred to information provided as part of a two-part course offered by the Alberta Pharmacists' Association. The course, developed to support pharmacists preparing their APA applications, was called, *Preparing to Apply for Additional Prescribing Authorization Course* (https://www.rxa.ca/professional-development/apa.aspx).

Colleagues. Colleagues and other prescribers in practice were important information sources for participants in this study. Five participants did not identify any textual information sources other than the *Guide* that influenced their understanding of pharmacist prescribing (Alberta College of Pharmacists, 2008a). These and other participants initially looked to colleagues in practice and individuals working for professional associations for guidance about

the prescribing role. Delilah stated that she "ran across people that made [her] want to [apply for APA]". To a great extent, participants relied on colleagues as information sources. This finding was expected, as it is common for professionals to turn to other colleagues for information (Case & Given, 2016; Leckie et al., 1996).

Participants referred to colleagues as role models and mentors. Adam was inspired by a pharmacist mentor to further his understanding of the prescribing role: "I consulted with my colleague who was also applying at the same time". John noted:

> There were not many of us with prescribing so I really wasn't able to see how another pharmacist would function in the clinical area. [I] see what the physicians [and] nurse practitioners are prescribing and then model my practice after that. Unfortunately, I didn't have the opportunity to have any mentoring from a pharmacist who had prescribing.

Brooke looked to her physician colleagues for inspiration. She also formulated her own perceptions of the prescribing process, looking at "prescribing from the outside and [observing] what physicians do".

Through interaction with colleagues, participants gained information and formed impressions about the responsibility associated with the prescribing role. However, once enacting the role, they gained even more insight into the responsibility associated with prescribing. Brooke explained how her sense of prescribing was impacted by her physician colleagues:

> You see prescribing from the outside and see what physicians do and it is really just writing the prescription. I do not think you actually ever understand what prescribing is until you do it… Once you start doing it, you really get it… I never really thought about what happened after you wrote it. The responsibility. The follow-up. Making mistakes.

> Patients who do not fill their prescriptions. I never really thought about that until I experienced it.

For participants in this study, information obtained through observing others perform the prescribing role was helpful, but not sufficient to make sense of the role. Brooke perceived the prescribing role to be simple when she observed physicians doing it and prior to experiencing it herself. However, her own experience with prescribing surfaced questions and assumptions about the role. Through this questioning, she began to create her own sense of the role, contrasting it with her prior perceptions of prescribing by her colleagues. A study of junior physicians on a surgical team found that oversimplifying another's role can result in a distorted view of that role and its associated identity (Lingard, Reznick, DeVito, & Espin, 2002). Lingard, Reznick, DeVito, and Espin (2002) drew attention to the discourse of interprofessional collaboration in understanding how constructing "a sense of the 'other'" influences development of a sense of the role and the associated professional identity (p. 733). In this current study, participants sought information from colleagues about the prescribing role, engaging critically with the information they obtained about prescribing and developing a sense of themselves as prescribers through their interactions with colleagues and other prescribers. They actively integrated information about prescribing and their own prescribing authority to create a new sense of the role through their own experiences as prescribers, as elaborated below.

Professional education. Participants indicated that the first professional degree in their pharmacy education did not prepare them for all aspects of the prescribing role. Adam noted that "my experiences as a pharmacist and in the setting that I worked in at the time, [and] the mentorship I had from a colleague, probably prepared me more for APA than my undergraduate studies in the [Bachelor of Pharmacy] program". Naomi expressed a similar view, emphasizing

that she sought information about the prescribing role from pharmacy and physician colleagues: “Pharmacy school did not prepare me, right? I learned from my colleagues. Pharmacy school did not prepare me for mental health. I learned from the psychiatrist”. Kimberly looked to other pharmacists for advice:

> I look[ed] to my colleagues who are maybe not in the same clinical area, but in similar sort of practices in terms of practice issues and ask, how do you get your labs? And how do you work in prescribing? When I started that process, it was huge for me to have people in ambulatory care practices [to consult] to be able to figure out how things should work. And then we tweaked [what I learned from other pharmacists] based on how [my specialty] group works.

Adam, Naomi, and Kimberly had practiced for several years prior to applying for APA. Even participants who had recently completed their first pharmacy degree expressed similar views. Mary, as a recent graduate, noted: “I am happy with the education I was given and the therapeutics, but some of that is lost… [It] is not about the education you are given, it is what you are doing within your day-to-day [work] life”. While engaging with colleagues in practice, participants obtained information about prescribing and drew on that information to make sense of the prescribing role. This finding is consistent with those of other research on professional roles, identity development, and education (Mylrea, Gupta, & Glass, 2015; Trede et al., 2012).

Participants emphasized that the first professional degree aided them in developing their identities as drug therapy experts and lifelong learners. The first professional pharmacy degree influenced participants’ identities as drug therapy experts by providing foundational education in pharmaceutical sciences and therapeutics. As one participant put it, pharmaceutical science “is our niche; understanding pharmaceutics, and medicinal chemistry, and pharmacokinetics. That’s

us, right?" (Kimberly). The first professional degree in pharmacy provided a reasonable base with respect to drug therapy knowledge. Philip saw a difference between professional education and practice, noting that professional education was "theoretical… but now it's how do we apply [the theory] to patient [care]". However, additional knowledge and skills were required to apply their expertise effectively and to fulfill the prescribing role:

> I would have to say that I learned more in my first two years after finishing my degree, than I did during my degree, in terms of what was usable clinical information. The chemistry and biology and other sciences that we studied provided a basis of knowledge, but not necessarily something I would have graduated with and been able to walk into a practice and start using. (Stephen)

In addition to foundational knowledge, the first professional degree nurtured their ability to learn continually throughout their careers, which aided them in expanding their scope of practice. Stephen described it this way: "The work that I did as an undergrad basically taught me how to work and how to learn".

After completing their first degree programs, participants sought educational experiences to apply their knowledge and build confidence providing patient care. Adam recalled: "My [doctor of pharmacy] training prepared me a lot more [than my first pharmacy degree] … my focus was not necessary to get the degree and be done with it, but to take all I was learning and be able to apply it." Olivia felt she gained deeper knowledge of drug therapy and developed skills in her residency program. Like Adam, the opportunity to apply her knowledge and skills essential to understanding the patient care role:

> It gave me some confidence, but not enough confidence… that I can [do the work] and [have] confidence in knowing how to do it… So, skills [were necessary], but [so was]

> confidence in taking the knowledge that you learn, bring[ing] it in to the patient, and making the decision. (Olivia)

Participants gained understanding of pharmacy practice through experiential learning in their programs and further experiences in practice. Kimberly learned how to be a pharmacist during her residency:

> My world completely changed during residency. [I] definitely learned how to be a clinical pharmacist. My decision to go to [do the residency] was the best thing I could have done in my life… All of my experiences throughout feed that. You grow constantly.

Doctor of Pharmacy and residency programs facilitated development of many essential skills. Additional experiential education in relation to patients as well as exposure to other health care professionals and teamwork were considered essential for developing confidence and for successful fulfilment of the prescribing role: "[It] enhanced the confidence I had in being able to manage patients and… [gave me] more confidence even interacting with other health care professionals on the team" (Adam). Experiences working with role models in the residency and "working as a team member" in a former hospital pharmacy practice setting influenced Naomi's understanding of the prescribing role. Professional education that provided opportunities to apply knowledge, build confidence, and work with others influenced participants' understanding of the prescribing role.

Experiences. The APA application requires pharmacists to submit narrative descriptions of their previous prescribing activities, including actual patient cases from their own practice, to fulfill certain criteria identified as key activities of prescribing in the *Guide* (Alberta College of Pharmacists, 2008a). For example, for some key activities and indicators outlined in the APA *Guide*, applicants must demonstrate that their "rationale for prescribing decisions is clearly

articulated and explained" and that their "prescribing decisions reflect best practices and/or are evidence-based" (Alberta College of Pharmacists, 2008a, p. 26). John described it as a reflective process, stating:

> It did make me reflect on how I practice, just even some of the questioning with regards to not even just the simple things of describing your practice environment, but giving examples of when you would refer or when you would utilize your advanced prescribing.

Naomi felt there was value in personal experience with prescribing: "It is interesting to think about writing an application, thinking about your practice, writing about what you do". Therefore, participants drew on their own experiences as important sources of information about the prescribing role.

As described in Chapter Four, pharmacists were constructed as drug therapy experts engaged in prescribing activities long before official approval of pharmacist prescribing. The participants in this study described prescribing activities as part of their role before the advent of APA. One participant stated: "In my opinion, when people get their APA, it shouldn't have been a huge change in practice. It should be a validation of practice" (Lucas). The difference between what participants did before and after obtaining APA related to having official authorization to prescribe and to their sense of responsibility for prescribing decisions. Prior to applying for APA, Naomi had experiences with prescribing in her community pharmacy practice:

> I was already doing APA type stuff. So, for instance, the physicians would send a patient to me and say, "Okay, what do you think we should do?"… I had been told by them, "Just do it and then let me know what you have done". I take the responsibility now instead of having them take the responsibility.

Other community pharmacists were involved in prescribing decision-making through consultations with physicians. They routinely provided prescribing recommendations to physicians. Prior to obtaining APA, Delilah was involved in recommending drug therapy. She was motivated to apply for APA so that she could assume responsibility for her recommendations:

> Why are we sending faxes off to these poor doctors who aren't going to see the patients and just say, "Sure, go ahead"?… Why should I make that health professional take responsibility for something that I am fully capable of taking responsibility for and following through, and leaving them hanging out there?

Adam's experience with prescribing prior to APA was different. In his clinical practice, he prescribed independently for patients under the supervision of a physician. He applied for APA to legitimize this practice (which was no longer permitted under the proposed legislation for pharmacist prescribing):

> One of the reasons I applied for additional prescribing authority was largely out of practicality. Because of legislative changes that had been occurring, we had until that point been working essentially as delegated prescribers and under the new legislation, that was no longer going to be allowed… The additional prescribing gave legal validation to what I was already doing in my job.

Similarly, Stephen had established a team-based practice in a specialty clinic with physicians, nurses, and other health care professionals. His prescribing experience was similar to the delegated prescribing described by Adam:

> Prior to [APA], there was prescribing that myself and my colleagues in the clinic were doing that was on behalf of physicians. We at times would be arranging prescriptions for

> patients, either continuations of prescription medications that had been initiated by our clinic physicians or on occasion to help to manage adverse effects of some of the treatments or to… avoid hospitalizations. So we were doing that on behalf of physicians and then getting physicians to sign prescriptions after the fact… with the APA, we were able to skip that step and I could just do the prescriptions myself and take responsibility for them.

Other participants working in team-based, specialty clinic settings described their experiences prior to APA. Olivia had an established clinic-based practice and, like Stephen, she wrote prescriptions for patients before obtaining APA. However, she did not need to take the step of having physicians sign prescriptions after the fact:

> I used to write prescriptions before with a signed prescription pad… I was making the decisions at that time. So [the physicians] would sign a bunch and I would walk around with the signed prescription pad in my pocket. They trusted me by that time. They knew I was going to be consistent. And if there was something [new], we would talk about the plan.

Olivia's experiences with her team's established work processes, including frequent communication with the physicians, made her comfortable writing prescriptions for patients prior to applying for APA.

Chloe considered prescribing as part of her role in hospital pharmacy practice long before she had APA. She had an established role on an interprofessional team and had established relationships with team members. She routinely made independent prescribing decisions and informed team members after the fact. She believed that APA legitimized her prescribing role by making it "legal":

> When I'm seeing a patient and whether it's changing a dose of medication or stopping a medication or sometimes just switching therapy altogether based on tolerability or something, what I would do before [APA] is I would take it as a verbal order from the [physicians] and then I'd go tell them that I'd done it. A little illegal, but, you know. Now I just say that it's me writing it.

Following APA, Chloe welcomed responsibility for prescribing decisions and wrote "orders" under her own name.

The participants' experiences served as a source of information about the prescribing role and the level of responsibility required to fulfill it. Participants described their engagement with prescribing activities before having APA; their sense that they were engaged in prescribing activities prior to official authorization as prescribers was consistent with the results presented in Chapter Four. That is, the discourse of expertise constructed pharmacists as engaged in prescribing activities prior to its official approval in Alberta. Before participants in this study had APA, they experienced prescribing in close association with physicians through shared decision-making, delegation, or established team-based processes.

Participants in this study did not anticipate changes in their practice after APA. This finding is consistent with other research on pharmacist prescribing. Studies on supplementary pharmacist prescribers in the United Kingdom reported that pharmacists "were in effect prescribing" before qualifying as prescribers (Weiss & Sutton, 2009, p. 412) and that receiving formal authorization to prescribe legitimized established practices (Dawoud et al., 2011; Tully et al., 2007). MacLure et al. (2011) studied pharmacists converting from supplementary to independent prescribing. Few pharmacists in their study expected changes in their day-to-day practice after receiving the additional authority associated with independent prescribing. In

Alberta, research on adoption of the prescribing model found that pharmacists viewed APA as legitimizing their existing practice and providing recognition of pharmacists' responsibility for patient care (Hughes et al., 2014; Makowsky et al., 2013). Participants in this study welcomed APA to legitimize their established roles and to allow them to assume responsibility for their involvement in prescribing activities.

This section discussed the range of information sources associated with the process of integrating information about the prescribing role. While the specific information sources varied for each participant, they included a combination of documents from professional organizations, colleagues, professional education, and their own experiences. The APA *Guide* was the one source used by all participants in this study. Discursive constructs of pharmacists as prescribers, specifically the discourse of expertise described in Chapter Four, influenced how participants viewed the prescribing role. Their prior experience with prescribing activities reaffirmed that that prescribing authorization would legitimize an existing role. Pharmacists' experiences as authorized prescribers are explored in the next section.

Perceiving a difference. Participants gained a new perspective on prescribing as they enacted the role as authorized prescribers. This perspective provided information about the role. As defined in Chapter Two, information is "any *difference* you perceive, in your environment or within yourself" (Case & Given, 2016, p. 6, italics in original). The discourse of expertise positioning pharmacists as drug therapy experts suggested that pharmacists had been engaged in prescribing for decades and that APA legitimized an established role. Based on prior experience and other information about prescribing, participants expected to continue to do what they had been doing all along, that is, contributing to decisions about drug therapy for patients and preparing prescriptions for other prescribers. The act of signing prescriptions was perceived as

the main difference in practice following official prescribing authorization. Participants in this study did not anticipate other changes with respect to how they experienced the prescribing role after APA. Olivia explained:

> When I first got prescribing, I actually thought there would be no change for me. I thought this because I am making these decisions already, deciding on what it is. I am writing under someone else's name. I am making that decision. What is the difference? It is just normal. It is not changing my practice.

However, after Olivia obtained APA, she realized a difference in the way she experienced the prescribing role:

> When I had to actually sign my name and do it myself, it was like a different responsibility all at once… almost like I started over… It changed what I thought I was [doing], in the sense of taking that responsibility and signing my name to it. So it was actually an interesting shift in my own mind of having to take that overall responsibility.

Kimberly shared a similar realization. She recalled believing that it did not matter which team member wrote and signed the prescription: "Whether I wrote it or someone else wrote it, it did not really make a difference in my practice". In a sense, for Kimberly, it was equally efficient for any team member to make the prescribing decisions. When Kimberly moved from hospital practice to a clinic-based practice, the supervising physician encouraged her to apply for APA because having APA "is going to make a huge difference in our practice" (Kimberly). Although some other prescribers anticipated a difference after being authorized, like Olivia, Kimberly did not anticipate major changes in her practice. After completing the APA process, Kimberly recalled: "There is certainly a different feeling when you put pen to paper and sign your name than when somebody else does, even if the decision is the same".

As previously noted, participants' experiences with the prescribing role prior to APA provided them with information about the prescribing role. However, they experienced discontinuity between their own expectations of the prescribing role and their actual experiences as prescribers. For many participants, there was a crystalizing moment associated with the first prescription. It was often associated with the physical act of signing a prescription or preparing documentation related to prescribing decisions. After obtaining APA, they had authority for prescribing and responsibility for the associated outcomes. The prescription, signature, and APA designation itself were all differences from previous practice that provided information about pharmacists' prescribing role. This finding is consistent with other research on pharmacist prescribing that pointed to the significance of writing and signing prescriptions (Hughes et al., 2014; Tully et al., 2007; Weiss & Sutton, 2009). The study of Hughes et al. (2014) on Albertan pharmacists moving into the prescribing role reported that the act of signing a prescription symbolized the meaning of APA for some pharmacists. Signatures and the act of signing itself are associated with responsibility and accountability in professional work (Hopwood, 2014). Signing prescriptions meant that participants now had authority for prescribing and signalled the official change from their previous level of involvement with prescribing activities. Personal experience signing prescriptions, as authorized prescribers, was integral to the process of making sense of the prescribing role. Brooke described having a new sense of responsibility after signing her first prescription:

> The first time I wrote a prescription with my name on it, it was for a [drug] for which I had written many prescriptions when I had gotten physicians to sign. I must have looked over it 10 or 12 times to make sure it was absolutely correct, that it was the right drug, the right dose, the right label, the date was on it. I did not ever think it would be that big of a

> deal to write that prescriptions because I had done it so many times before. But it did change when you put your name to it… I felt for the first time, I was the one holding the bag. If something was going to go wrong, my name would be on it and that problem would come back to me. Whereas, prior to that, if there was a problem, I never really had to deal with it.

Stephen described it this way: "There is actually a great deal of responsibility associated with this and it's really going to have an impact… There was definitely gravity felt on me at the moment that I signed that first prescription". Stephen perceived a difference associated with the prescribing role after writing a prescription for the first time.

Claiming responsibility for prescribing decisions was important to pharmacists. Writing the first prescription represented a new experience associated with authority and responsibility. Kimberly took a photograph to document the event: "I remember the first prescription I wrote. I actually saw it come back on NetCare as I was checking and saw my name. I took a little picture of that little line… it was another hurdle in my career, sort of something to be celebrated, an accomplishment".

Responsibility for drug therapy was one of the intended outcomes of pharmacist prescribing (Alberta College of Pharmacists Task Force on Pharmacists Prescribing, 2002). APA allowed pharmacists to assume responsibility for prescribing decisions. When Philip received authorization as a prescriber, he noted that

> The chart only had my name as opposed to being co-signed by a traditional prescriber… It was nice to be doing things under your name, because you arrived as far as having something that you are responsible for and it is totally your decision.

Observing traditional prescribers and experiencing prescribing "from the outside", as Brooke referred to it, was contrasted with seeing responsibility for prescribing materialize, as represented by the prescription itself, a signature, notation on a hospital chart, or a line in the electronic patient record on NetCare. The difference participants perceived represented new information about the prescribing role.

Documenting: Making it real. Documentation of prescribing decisions emerged as an important aspect of the participants' information environment. Consistent with the findings in Chapter Four, the documentation associated with prescribing became integral to the prescribing role. Documentation included preparation of prescriptions, signing prescriptions, and recording prescribing decisions. Participants produced a variety of material information artifacts such as letters sent to physicians or notations in patient charts and records. They reported changes in their daily workload related to documentation requirements regardless of their practice setting and prior experiences in practice. Some of the increased demands on their time related to the required documentation included the style and extent of documentation; in addition, (sometimes conflicted) interactions with others increased because of the need for documentation for the purpose of information sharing. Other research on pharmacist prescribing in Alberta described documentation as "one of the most challenging professional hurdles" for pharmacists in Alberta (Charrois et al., 2012, p. 30) and as labour intensive (Makowsky et al., 2013). It was not a new activity for pharmacists pursuing APA. Yet, documentation was an aspect of the prescribing role that changed once a pharmacist received authorization. The prescribing role demanded more and sometimes different documentation from pharmacists. Based on the APA application process, participants anticipated some changes in their day-to-day practice arising from documenting prescribing decisions. All participants, except one, had completed formal professional education

(i.e., a residency or Doctor of Pharmacy degree) or undergone continuing professional development that included a focus on documentation skills. Documentation of prescribing encounters was therefore integral to the process of enacting and making sense of the prescribing role.

Even participants with considerable experience documenting patient care drew attention to the new and more comprehensive demands of documentation after APA. John, a hospital pharmacist, noted an evolution in his own documentation style despite the fact that he routinely documented patient care decisions in the course of his daily work. As he put it:

> The documentation has changed immensely since I have had my APA. I am much more complete and thorough, not that my documentation was shoddy in the past. I just think that it is much more detailed now as compared to what it was in the past.

For those participants less experienced with documenting patient information, meeting documentation requirements after APA represented a significant challenge. Kate considered documentation a significant change in her practice "because we had been doing a lot but we were not writing it down". Another community pharmacist, Mary, shared a similar observation about documentation. She employed a documentation style of short notes to summarize diagnosis, assessment, and planning (referred to as DAP). Despite using this systematic documentation style, Mary experienced

> …a change in practice from usually doing a little DAP note. You just need to be more exhaustive so you can meet the criteria set out by the [Alberta College of Pharmacists].
>
> The goal is, going forward, that you are maintaining that comprehensive documentation.

Rachel too needed to change her approach to documentation after APA. She found that her notes were longer and more comprehensive than before "because you assessed things, but you did not

necessarily have to give your rationale behind anything… First it was lengthy and then I learned how to pare it down".

Participants concerned themselves with the reception of their documentation from other health care providers involved in patient care. It was important to participants that the documentation not only met Standards of Practice (Alberta College of Pharmacists, 2011), but that it was relevant and useful information. Participants initially prepared documentation to meet APA requirements and standards established for pharmacy practice. After they had gained some experience, they refined their documentation styles to meet the Standards of Practice and also to meet the needs of the specific practice setting. Rachel described the adjustments made to her documentation while working alongside physicians in a primary care setting:

> I thought I was doing what the [Alberta College of Pharmacists] required. Now some of it was maybe more than what we needed. Even the physicians said to me, "You are not going to be writing like this in the future, are you?" I said, "No, no, I am just doing it [this way] because I need to meet these criteria. I'm going to figure out a way to meet the criteria and make [the documentation] more succinct." So, I do think it taught me, though, to look for things that I may be able to justify how [I] came up with that and show the rationale behind it.

Other participants adjusted their documentation style to their particular practice settings. In a community pharmacy practice, George tailored his documentation based on the needs of the individual physician receiving the information:

> Documentation, when I do not know [the physician] that well, is probably a little heavier; giving more information than they probably would want or need, because I do not know their comfort level with pharmacists prescribing… Although if I am prescribing on a

> regular basis for one of their patients, I probably will try to reach out in some way. If it is a new physician in town and I do not know them at all, and all of a sudden, I am doing a lot of prescribing for their patients, then I probably need to meet them and see what they think or what they want to see from me.

For some participants, approaches to documentation were negotiated with team members. Kimberly worked with a physician in the specialty clinic to adjust her approach to documentation:

> We had some good discussions about my notes… [The physician said,] "I would like to see more of this" and "I understand that the note will continue to be long because it is comprehensive". We [communicated] back and forth to better understand each other's approach and why things were done that way.

Other participants developed entirely new documentation templates for themselves and their colleagues. David, a community pharmacist, developed standardized templates for prescriptions and for documentation used to communicate with physicians. To David, the quality of documentation reflected his commitment to the role and his level of professionalism:

> Other prescriptions I see [are] just on one of those cobalt prescription pads, right? So then again, it is a reflection of the individual that they are not as organized or they do not care about the professional look. I love things that are crisp, clear, coloured, so when I see it, I have pride. When I type out my prescription and print and sign off, I [say] this looks awesome, this looks really good. The reason I stress that is we had an old communication form that we would send the doctors. We would hand write it. There was not enough space on it. We would cram it. It just did not look good. We would never get a response

> [from the physician]. I created this new template, bigger, typed out, bullet points. All of a sudden [there was a] prescription to follow.

David evaluated documentation practices in his practice setting and made changes after obtaining APA that altered responses from physicians.

Participants documented their prescribing decisions as part of making sense of the prescribing role. The role, and in particular their responsibility for prescribing, materialized into something real and tangible for them: "Prescribing is actually the putting pen to paper" (Kimberly). Chloe equated the prescribing role with documentation:

> The way I describe [prescribing] is probably best illustrated in terms of what you are going to document… It really is about taking a look at the patient, the data, all the pieces at hand and making a plan, an informed plan and a follow-up… Because you wrote it down, you have made it real… It is there. It is in black and white. You have taken responsibility for that. And that, to me, connects very much with APA.

Even for those participants who had been involved in prescribing decision-making for many years before attaining APA, there was a difference in the way they thought about their role because of documentation. Documentation associated with the APA application process motivated pharmacists to re-evaluate their practice and implement improvements, including those related to documentation (Charrois et al., 2012). Documentation has been described in other studies as a barrier to pharmacist prescribing (Rosenthal, Houle, Eberhart, & Tsuyuki, 2015) that improves over time (Makowsky et al., 2013).

Making sense of the prescribing role involved participants' enacting the prescribing role as authorized prescribers. This entailed integrating information about the prescribing role, perceiving a difference in the prescribing role, and documenting prescribing decisions.

Documentation was integral to the process of making sense of the prescribing role. It represented the participants' responsibility for prescribing to themselves and to others. It became part of the information environment as a source of information about both the role and patient care. As participants' prescribing documentation evolved, so did their sense of the role.

The process of integrating information about the prescribing role was discussed in this section of the chapter. It involved integrating what was known about the role previously with actual experience as an authorized prescriber and moving "between external and internal information to understand the world, and usually act on that understanding as well" (Case & Given, 2016, p. 59). Pharmacists utilized both internal and external information when they applied for APA. There were two influential information sources: the Alberta College of Pharmacists' (2008a) *Guide* and pharmacists' internal information based on their own previous experiences with the prescribing role. Other information sources used in making sense of the prescribing role were pharmacists' professional education and their relationships with others. In the next section, the process of limiting and expanding prescribing is explored.

Limiting and Expanding Prescribing

When APA was implemented in Alberta, Albertan pharmacists had few regulatory limitations on their prescribing. According to the discursive construction of pharmacists' prescribing role presented in Chapter Four, however, the practice of prescribing for participants in this study was often limited to a specific area of expertise. This limitation influenced the way they enacted the prescribing role. Participants described how they initially imposed their own limits on their prescribing activities, identifying a focus area for what medications they would prescribe. For many participants, this initial focus area was identified in their APA applications and corresponded to a practice specialty or a category of medications associated with their

practice. Those participants practicing in a general practice setting, such as a community pharmacy, actively pursued an area of focus. In choosing focus areas, participants created boundaries for how and when they would prescribe. These initial boundaries enabled them to build confidence as they engaged more and more with prescribing and effectively took responsibility for their prescribing decisions. However, these boundaries changed; the prescribing role expanded as participants gained experience. Limiting prescribing in the early stages was integral to the process of making sense of the prescribing role and to its expansion as time went on. In the sections below, the processes of focusing prescribing, creating boundaries, and expanding prescribing as experienced by study participants are outlined (Figure 5.3).

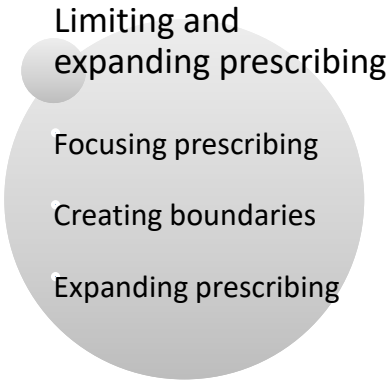


Figure 5.3. Limiting and expanding prescribing.

Focusing prescribing. Participants in this study described the process of identifying a focus for their prescribing. Purposefully selecting a focus area for prescribing was a way for them to ensure they met requirements for APA. A focus area served as a starting point from which they could enact the prescribing role in practice. Focus areas were not provided to pharmacists by the Alberta College of Pharmacists. However, focus areas were described in documents prepared by the professional organizations, as discussed in Chapter Four, such as "anticoagulation, asthma, diabetes, geriatrics, hypertension, oncology, [and] pediatrics" (Alberta

College of Pharmacists Task Force on Pharma's cists Prescribing, 2002, p. 8). Typical focus areas for participants in this study corresponded to (1) specific conditions such as asthma, hypertension, and diabetes, (2) medical specialty areas including cardiology, geriatrics, infectious diseases, internal medicine, mental health, pediatrics, surgery, and women's health, and (3) patient care services offered at community pharmacies or clinics such as tobacco cessation and anticoagulation monitoring. Participants employed various methods to select focus areas for prescribing depending on the practice setting and information environment.

Participants working in medical specialty areas, such as cardiology or pediatrics, selected focus areas for prescribing based on their practice settings. This was also true for participants in hospital pharmacy practices or specialty clinic settings. Prior to applying for APA, Adam had an established practice in a specialty clinic that provided care for patients with specific cardiac conditions. His prescribing focus was based on these conditions and a limited range of drugs associated with them. In addition, his prescribing practice was supported by an information environment that included well-established practice guidelines, patient assessment tools, communication and documentation processes, and a prescribing agreement developed specifically for the clinic. Adam's practice setting therefore facilitated identification of a focus area, provided him with a place to begin, and naturally limited his prescribing in the early stages. In contrast, Kimberly was actively seeking a new practice setting at the time of applying for APA. She sought a new practice area that would support her future practice and would include a prescribing role:

> I recognized that I wanted to practice to full scope and I wanted to be independent. I was not sure exactly how that would look. But, I recognized that [this specialty area] was

> medication intensive… I just felt like it was a perfect position for a pharmacist to be in. That was my frame moving forward.

Like Adam, Kimberly dealt with specific conditions related to an internal medicine specialty associated with a limited range of drug therapies. Having a focus allowed her to develop "a level of expertise and confidence in the therapeutic area" (Kimberly). Thus, having a practice in a specialty clinic, whether new or established, provided participants with a specific and appropriate focus area for prescribing.

Participants in general practice settings, such as community pharmacies, selected initial focus areas related to continuing professional development and certification programs. Before applying for APA, Kate gained experience caring for patients with hypertension through participation in an Alberta-based pharmacy practice study, Rural RxACTION (Charrois et al., 2011). The study team supported pharmacists' pursuit of APA by providing continuing education seminars about hypertension, assistance implementing documentation systems, and support with the APA application (Charrois et al., 2012). Continuing professional development courses offered by the University of Alberta were developed to support pharmacists in their efforts to expand their scope of practice in focus areas including hypertension, diabetes, anticoagulation, laboratory values, and menopause (Bungard et al., 2012; Hughes & Schindel, 2010). Participants drew on these courses as inspiration for making sense of the prescribing role. In addition, formal certification programs in areas such as diabetes, geriatrics, and menopause provided support for participants as they identified initial focus areas or planned to expand the prescribing role. Aside from providing focus, these continuing professional development courses and certification programs helped participants gain confidence. Kate explained her rationale for pursuing certification in geriatric patient care: "I felt that I needed to have more credentials under my

belt… the final confidence to push ahead and just start doing [prescribing] and feel confident". Similar to Kate, Francine selected initial focus areas for prescribing based on knowledge gained from continuing professional development courses.

Another approach to identifying a focus area related to opportunities in the practice setting. Rachel started prescribing in the area of anticoagulation because she saw opportunities for pharmacists to take a leadership role in her primary care practice. She gained practical experience in her practice setting and completed continuing professional development courses. She enacted the prescribing role with anticoagulation management as the "only real focus" (Rachel). Building on her experiences with a single focus for prescribing, Rachel then expanded the prescribing role to other areas by "just getting into the clinics. The doctors did not know where this pharmacist is going to fit in, so I got my foot in the door". She added additional areas of focus as she gained experience, confidence, and trust from the physicians in her clinic.

Some participants selected areas of focus based on the availability of information and practice tools. Mary's community pharmacy practice setting presented many opportunities for prescribing since its patients presented with a wide variety of conditions and needs. Initially, limiting prescribing to a few areas was essential for Mary; she actively searched for a starting point for prescribing. After considering the options, she chose the broad category of minor ailments as a focus area for prescribing. This category includes a range of ambulatory conditions that patients self-diagnose and for which they often seek treatment options at community pharmacies (Lee & McCarthy, 2015). The list of conditions categorized as minor ailments differs in each province (Taylor & Joubert, 2016). Common minor ailments include conditions such as acne, allergic rhinitis, and headache. Mary chose this focus because she had ready access to tools

developed by the Saskatchewan College of Pharmacists minor ailments program (Mansell et al., 2015). Mary sought information and guidance to initiate prescribing in her practice:

> I developed a process and a lot of it was based off the [program in Saskatchewan] because it does have such good assessment tools. It was something that also helps me with my professional comfort… Assessment tools that make sure that I am staying within my scope. We have such a wide scope here, it is important to have a little support in the parameters of [prescribing]… That is something that I recommend to other people when they are starting to develop their cases.

When Mary started prescribing, she selected an area of focus from what seemed like a vast range of options in community pharmacy practice. The minor ailments program from Saskatchewan provided Mary with support for prescribing through its guidelines and processes. She was also able to gain experience and build confidence in her prescribing role. This finding is similar to those of other researchers of pharmacist and nurse prescribers. McIntosh and Stewart (2016) reported the use of algorithms by non-medical prescribers that provided clear guidance, helped new prescribers feel confident about their prescribing decisions, and provided evidence to help them resist pressure from patients to prescribe medications such as antibiotics. Mary used the algorithms developed for minor ailments to guide rather than dictate her decision-making:

> It is nice because in Alberta we are not restricted to it [algorithms]. I think in Saskatchewan if you say yes or no to this question, you can or cannot prescribe. Here, we have the professional assessment where we can prescribe even if it is not exactly within that parameter. But it does give you a nice base if you were ever to explain why you did something to your peers. It gives you a good foundation.

The self-imposed limit on Mary's prescribing focus clearly did not hinder her prescribing decision-making.

Focusing prescribing, at least at the initial stages, was integral to making sense of the prescribing role for participants in this study. This finding echoes the results of other studies. Research on independent nurse prescribers found that they used self-imposed limits on prescribing as a mechanism to gain experience, improve their prescribing, and develop expertise (Bowskill, Timmons, & James, 2013). Pharmacists starting as supplementary or independent prescribers in the United Kingdom are required to complete mandatory education programs (George et al., 2008) and "usually train and prescribe in one area (e.g. hypertension or anti-coagulation)" (McCann et al., 2012, p. 127). Research on Australian pharmacists contemplating the prescribing role reported that pharmacists expressed a need for training in order to fulfill the role successfully (Hoti, Sunderland, Hughes, & Parsons, 2010). Unlike pharmacists in the United Kingdom and Australia, pharmacists in Alberta are not required to complete formal training to qualify for prescribing authorization. However, in this current study, approximately half of the participants pursued additional training through formal certification programs or continuing professional development to support their prescribing activities. This training supported their selection of focus areas and initial enactment of and confidence in the prescribing role.

Participants in this study enacted prescribing focusing on drug categories (e.g., anticoagulants), individual diseases (e.g., hypertension), or patient needs (e.g., treatment for anxiety). Other research exploring adoption of prescribing in Alberta reported that pharmacists prescribed in specific areas including hypertension, anticoagulation, and diabetes (Guirguis et al., 2014). Guirguis et al. (2014) characterized how 38 pharmacists (including 13 pharmacists with APA) used the three types of pharmacist prescribing in the Alberta model: adapting

prescriptions, prescribing in an emergency, and APA. They identified three different approaches: drug-focused prescribing (prescribing to refill a previous prescription), disease-focused prescribing (based on practice guidelines or protocols relevant to their specific practice area), or patient-focused prescribing (based on patient needs). According to Weiss and Sutton (2009), the need to be competent within a focus area for prescribing both facilitates and constrains what new prescribers are able to do with the prescribing role. Supplementary pharmacist prescribers in the United Kingdom limited their prescribing to areas of competency (McCann et al., 2012).

Limitations on prescribing by pharmacists arose from the requirement to prescribe within areas of competence (Weiss & Sutton, 2009). Bowskill, Timmons, and James (2013) studied how nurses integrated prescribing and found that newly authorized prescribers, especially those in primary care, imposed limits on their own prescribing activities. Self-limitation on prescribing was considered essential to the integration process by many nurses (Bowskill et al., 2013). Findings of this study confirm the importance of limiting prescribing observed by other researchers. Identifying a focus area provided participants with a starting point from which their expertise and confidence could develop further. Once authorized as prescribers, pharmacists did not limit themselves to prescribing in the focus areas highlighted in their APA applications or those initially chosen; rather, they expanded prescribing when enacting the role in their practice settings, as elaborated later.

Creating boundaries. Participants identified boundaries to guide how and when they prescribed medications for patients. After starting with specific focus areas for prescribing, they created these boundaries based on their perceived ability to take responsibility for prescribing decisions, their professional judgement, access to patient information, and relationships with

physicians and patients. The specifics of these prescribing boundaries varied among participants. The process of identifying boundaries related to their agency as prescribers.

The self-imposed boundaries on prescribing were related to the discourse of expertise. Participants either created boundaries that enabled them to be accountable for the entire process of care following the prescribing event, including follow-up after prescriptions were written, or that recognized their inability to do so. For example, logistical challenges inspired boundary creation for some participants. Eva encountered barriers to follow-up related to her part-time practice: "My lack of time for follow-up is a barrier to me putting my name on a lot of things". Olivia's part-time schedule motivated her to limit prescribing in some situations. Since she practiced in a specialty clinic one day a week she did not prescribe for patients if she was not able to provide follow-up care for them:

> Before [APA] when I wrote a prescription under [the physician's] name, the follow-up and responsibility for follow-up was still with the clinic [physician]… I really debated should I even be prescribing. Should I be writing this? Should I be doing this, because I am not going to be able to follow up with it? So, that is why I am okay if I prescribe, I am okay if I do not… It has nothing to do with power. It is not about me writing a prescription. It is about the patient getting what they needed at the end of the day. Did they get the right thing? Did they get the education?… Do they know what to expect?… That is much more important than who wrote the prescription.

Olivia noticed a change in her thinking after obtaining APA. Once authorized as a prescriber, she considered additional questions about each patient's situation before she prescribed. Beyond having a focus area for prescribing, she prioritized meeting patient needs and fulfilling responsibilities of the prescribing role. Olivia's sense of the prescribing role related to her

responsibility for patient care. It was associated with a range of activities, for example, educating patients, patient expectations, prescribing, and follow-up care after the initial prescribing decision. Prior to APA, Olivia performed these activities, but did not address these questions in the same way when she wrote prescriptions for the physician to sign. She performed her role on the team without having the ultimate responsibility for prescribing decisions. Her sense of responsibility associated with the prescribing role changed following authorization. The self-imposed boundary on prescribing meant that even though Olivia was in a position to prescribe, there were times when she chose not to do so.

Participants who practiced in more than one practice setting created boundaries appropriate for the practice setting. While Eva enacted the prescribing role in her community practice, she did not do so in her role at the primary care clinic because, as she put it, prescribing "is not an autonomous act for me". She described how the clinic's administrative procedures did not support prescribing by a pharmacist: "I have additional prescribing authority. I am involved in prescribing decisions, but in the end… the prescription does not go under my name" (Eva). Technical procedures related to electronic patient records presented barriers to prescribing for her: "Our electronic medical records need [medications] ordered under the physician… I cannot actually generate prescriptions until we do a fix". In this case, boundaries for prescribing were based on the technology used in the clinic. She reported being involved with prescribing decisions, but she was not enacting the prescribing role in this practice setting. In another clinical setting, Brooke described similar challenges. She identified boundaries arising from the work processes and information sharing:

> In [this specialty] clinic, I typically do not prescribe. The reason being is I am not there all the time. I also do not want the prescriptions coming to me, because there is a clinic

> and I want them all routed centrally, so if there is a problem and I am not there, other people can do it. I haven't really taken an active role in prescribing for those patients just because of the way that the clinic is set up.

In the other clinics in which she worked, Brooke prescribed often. She did not create boundaries related to work procedures. However, Brooke established self-imposed boundaries related to other considerations, including patient preferences and agreement with another prescriber's clinical decisions:

> If the patient is following up with the [physician]… or if there is something that I disagree with… I feel like it is an aggressive dose, or the directions are aggressive and I have stated it but [physicians] disagree and they want the prescription, I won't write it.

In this practice setting, Brooke worked closely with physicians. She described times when a physician made a decision and asked Brooke to write the prescription, but she refused. As discussed in the *Perceiving a difference* section above, the act of signing the prescription was equated with responsibility for care of the patient, a responsibility she did not always want to accept. In essence, Brooke created a boundary with respect to delegated prescribing that firmly established her autonomous prescribing role as equal to that of physicians.

Participants' sense of the prescribing role was continually reinforced once they had official authority for prescribing. The role included responsibility for decisions related to prescribing. Similar to the research findings reported by Maddox et al. (2016), participants in this study experienced situations where they were reluctant to prescribe. When situations arose in which pharmacists did not have enough information, when they felt subordinate to other prescribers, or when they did not feel competent to do so, they chose not to prescribe. Boundaries for prescribing were imposed to address situations when participants did not have

adequate information or expertise to make prescribing decisions. These boundaries were imposed by participants in all practice settings. Without adequate information or expertise, participants felt unable to take responsibility for prescribing decisions. In those situations, they referred patients to another prescriber to address the patient's medication needs. The discourse of expertise therefore reflected how participants enacted the prescribing role.

Through talking about the prescribing role with patients, participants made sense of it. When pharmacist prescribing was first authorized in Alberta, it was not uncommon for patients to visit pharmacies rather than their physicians (Schindel & Given, 2013). Francine described this shift in patient attention: "Everyone in the community knows I can do this, so they come to me". She assessed patient needs in many cases, but did not prescribe if the situation did not warrant a prescription medication or if the condition was outside of her area of expertise:

> If someone just comes through [the door], I do not necessarily prescribe for them… I find I often say no, I do not think I can prescribe in that instance. But even then, it turned into a counselling experience with them and often, a referral. [When] I do not prescribe, I refer them on to the doctor. (Francine)

Other participants who worked in community pharmacies described feeling pressure from patients to prescribe. Delilah recalled:

> I have written a few prescriptions. I have refused to write a few prescriptions. I have spent a lot of time explaining to people what this means because a lot of people seem to know we can do this and they show up and say, "Hey, I hear you can do this. Does this mean I never have to go back and see my doctor again?" So I get some very interesting conversations with people about the scope of this particular authority… My little spiel starts with, yes, I can write you a prescription, but more importantly, I may. And that is

> not a blanket authorization to do whatever you want or whatever I want. It has to do with appropriateness for you and for me. So, yes, I certainly may write you a prescription, but I am not required to do so… If it is not the best care for you, then it is not going to happen.

As Delilah addressed challenges to her boundaries, she evaluated and adjusted those boundaries as appropriate. Boundaries for prescribing, self-imposed or otherwise, guided participants' prescribing decisions. As participants gained experience prescribing and creating boundaries for prescribing, they furthered their understanding of the prescribing role.

Participants who limited their own prescribing described a process of becoming comfortable with "not knowing". Isabelle described realizing what she did not know when faced with a potential prescribing decision: "You thought something was so simple, until you have to prescribe and you start crossing your t's and dotting your i's. You realize that there is so much more I need to know about this". Philip contacted physicians when he decided not to prescribe, stating: "I would rather have that [prescriber] see that I am making a judgement that I actually do not know what is in the patient's best interest". Kimberly explained:

> You have to be competent and confident [to prescribe]. This fear and a bit of recognition that you know so little in this vast world is really key to being a good responsible prescriber… I think that is the number one thing you really become okay with that. Rather than trying to fake it, I am just being really honest in wanting to do the best for my patient. So if I do not know, then I need to ask a question.

As part of imposing limits and creating boundaries for their prescribing, participants identified information needs. Reaching out to physicians, as Philip indicated, resulted in information sharing. When participants limited prescribing, they were also acquiring new information about

their own knowledge and how they approached the prescribing role within their information environments. Thus, boundaries became a source of information as they made sense of the role. This process informed future decisions.

Participants gained confidence related to their growing sense of the prescribing role. In these three examples, Brooke, Isabelle, and Philip expressed comfort with not knowing and their decisions not to prescribe. This is important because they were previously uncomfortable with not knowing. The boundaries to prescribing made their own sense of responsibility for prescribing and commitment to patient care visible to themselves and others.

As in other research on pharmacist prescribing, participants in this study enacted the role with caution. Factors influencing independent pharmacist and nurse prescribers' decisions to take full responsibility for prescribing were "underpinned by a feeling of cautiousness" (Maddox et al., 2016, p. 45). This cautiousness has been a consistent finding in research on pharmacist prescribing (Abuzour, Lewis, & Tully, 2017; Makowsky et al., 2013; McCann et al., 2012; McIntosh et al., 2012; Schindel & Given, 2013). Weiss and Sutton (2009) identified a focus on safety in health care as a motivator for pharmacist prescribers to limit their prescribing. This current study extends our understanding of deferred prescribing decisions; they are seen as part of a process of making sense of the role through setting self-imposed boundaries on that role.

Participants considered relationships with physicians, other health care providers, and patients when identifying boundaries for their prescribing. Some participants adjusted their approach to prescribing in situations where they did not know the physician or patient well. Philip did not have established relationships with all physicians in his hospital unit due to the large number of physicians and the scheduling of patient rounds. Unlike the other participants in hospital practice, Philip was seldom in close physical proximity to the physicians caring for

patients on his unit. Philip considered himself an active prescriber. However, there were situations when he deferred prescribing because he "did not know the prescriber [or] for whatever reason did not have a relationship". In some cases, Philip established personal contact with the physician before prescribing. Not knowing the physician did not prevent Philip from prescribing. Rather, Philip deviated from his usual process to ensure information was shared before prescribing.

Naomi, like Philip, created boundaries for prescribing based on relationships with physicians:

> With physicians I do not know… I judge carefully. If it is a physician who is a bit reluctant, I may do a recommendation instead. If it is a physician that I know it would be okay if I put my justification, I will do the prescribing, and send them a note. I also, on occasion, phone them and talk to them.

These examples highlight the boundaries created and how they facilitated development of relationships with physicians and appropriate information sharing for prescribing and patient care. Makowsky et al. (2013) reported that Albertan pharmacists adapted their prescribing behaviours to avoid conflict with physicians. Pharmacists reported making decisions not to prescribe due to signals received in prior interactions with physicians or physicians' reputations, or to preserve relationships with physicians (Guirguis et al., 2017).

In the process of making sense of the prescribing role, boundaries between pharmacists and physicians sometimes overlapped. Other researchers have referred to this as blurring of boundaries (Bowskill et al., 2012) and boundary encroachment (Weiss, 1994; Weiss & Sutton, 2009). For some participants, conflict arising from this blurring of boundaries caused them to limit prescribing. This is consistent with the study of Maddox et al. (2016), who found that nurse

and pharmacist prescribers deferred prescribing decisions due, in part, to concerns about criticism from physicians. In this current study, such criticism was experienced more often by participants practicing in settings physically separate from physicians where access to information (in the form of patient information and information relationships) was challenging.

Both Francine and Kate experienced conflict with physicians in their communities arising from blurred boundaries. A strained relationship influenced Francine's decision to limit prescribing. Until Francine built a stronger relationship with the physician, she completely stopped prescribing for a period of time: "I did not feel that I was useful or could use my abilities for any kind of prescribing because the doctor would not support it". Other participants created boundaries to avoid encroaching on physicians' prescribing. Kate, like other participants, considered relationships with physicians and other health care professionals when making prescribing decisions. However, she also described adjusting her boundaries regarding prescribing based on patient needs. For example, when a patient required an adjustment to existing drug therapy prescribed by a physician with whom she did not have a strong relationship, Kate made the adjustment if she felt it was in the best interest of the patient: "I did tackle a couple of his complex people and these, again, were on the request of the patient".

Other participants reconsidered boundaries when confronted by patient need. David described a situation that challenged his boundaries:

> I have a professional obligation to look after our patients, so if somebody is completely against what I am doing… I do not act in a way that would jeopardize relationships. I think physician[s] that I have a relationship with… know who I am. They get my faxes, they get my phone calls, they know my role. I would never put myself in a position where I would jeopardize that relationship. If I jeopardize the relationship that is now going to

> really impact the patient because [physicians] are not going to listen to me at all. But still… if I know there is something obvious, if it is clear as day that this has to be done right now, even though I am not the one prescribing it, I still feel liable, because I know that this is a problem that has to be fixed right now and if I'm getting backlash from the physician, I'm still going to do it.

Isabelle described the basis of forming boundaries for her prescribing decisions with respect to relationships with physicians. Her priority was to make prescribing decisions based on the patient's need. She described reinforcing boundaries for her role:

> In so many of my staff pharmacists is… that fear of angering a physician and closing the door on that relationship. I have a very difficult time with that. I do not see it that way. I am not afraid of physicians. In my collaborations [relationships have] been positive. There [have] been some negative ones, but I do not stand for it… I have had these things happen where [physicians] phone me and they are angry with something I have done. It is usually the old-school ones that think pharmacists should not be doing anything. I am just quite frank saying, you know what, this is not about you and sorry you are offended, but I was thinking about the patient. I was not thinking about your ego. I was thinking about what I need to do.

Participants in this study gained experience representing the prescribing role by explaining it to patients, physicians, and others. As participants made sense of the role, it became better defined in their minds. Through these experiences of limiting prescribing to focus areas, creating boundaries, and expanding prescribing (discussed in the next section), participants began to understand the evolving prescribing role.

Boundaries were flexible. When confronted by patient need, participants adjusted their boundaries to ensure patients were not at risk of an adverse outcome. This finding is consistent with other research on prescribing. Maddox et al. (2016) found that nurse and pharmacist prescribers considered the risk associated with prescribing when deciding to take responsibility for prescribing decisions. When the risk to the patient was perceived as high, participants in this study often chose to prescribe. In other words, participants adjusted boundaries to ensure patients received care. Self-imposing limits on prescribing allowed participants to exercise agency in their workplaces with regard to the prescribing role.

Participants identified boundaries that limited prescribing even when they enjoyed established and strong relationships with other prescribers. For example, Chloe created boundaries for prescribing based on physicians' trust in the idea of pharmacists prescribing:

> There are some of the physicians that I would write for anything all the time. I wouldn't even blink because I know that I have the relationship that they trust me. It is not that they do not trust me. I do not know that they trust the role yet. So, I would approach that differently because it is a team environment. I am not just going to push it just because I can.

In this example, Chloe sought to balance two roles: the prescribing role and the team role. When there were many prescribers available, participants were not compelled to prescribe "just because they were authorized to do so" (Chloe). Similarly, John limited his prescribing activity to reduce the number of prescribers involved in patient care. For him, there were "definitely areas that I am not going to touch" as a prescriber. In those situations, John elected to provide information, rather than a prescription.

Participants created boundaries to guide how and when they would prescribe and to define their responsibility for prescribing decisions. Relationships with physicians were also considered when creating prescribing boundaries. When participants practiced in close proximity to a physician or other prescriber, other factors were considered, such as their roles as team members. Weiss and Sutton (2009) argued that supplementary pharmacist prescribers in the United Kingdom, who were required to prescribe in partnership with a mentor physician, were subordinate to physician prescribers; in this situation, role definitions were blurred, as pharmacists were prescribing on teams, and self-limitation of prescribing was necessary in many cases.

Due to the nature of APA in Alberta, pharmacists sometimes view the prescribing role, or expanded scope of practice, as "too big" with respect to the number of options for prescribing (Dikun et al., 2016, p. 650). Thus, the process of making sense of the prescribing role was as much about what participants did as it was about what they did not do with their new prescribing authority. It involved a choice of whether or not they would prescribe and a sense of agency within the prescribing role.

In this current study, participants were authorized as independent prescribers. However, they still limited their own prescribing and created flexible and adaptable boundaries that served to define their prescribing role and prevent blurring of roles. Other studies of nurse and pharmacist prescribers in the United Kingdom reported prescribers creating their own boundaries to limit prescribing but also working within static boundaries assigned by employers (Bowskill et al., 2013; Maddox et al., 2016). Participants in this study employed by Alberta Health Services had additional support with respect to role definition. Alberta Health Services implemented a policy in 2011 that educated stakeholders about pharmacist prescribing and supported a

consistent approach to prescribing practice by pharmacists in the organization (Gray & Mysak, 2016). Creating boundaries contributed to the process of making sense of the prescribing role and exercising agency within it.

As participants enacted the prescribing role, they limited their prescribing to specific focus areas and created boundaries for when they would prescribe. This section highlighted how participants initially identified areas of focus for their prescribing activities. Their APA application served as a starting point for implementing prescribing in practice. They created boundaries for prescribing related to how and when they would prescribe, taking responsibility for prescribing decisions and maintaining relationships with patients and other health care professionals.

Expanding prescribing. Participants initially identified areas of focus for their prescribing activities with their APA application as a starting point for implementing prescribing in practice. They created boundaries for prescribing related to how and when they would prescribe, taking responsibility for prescribing decisions and maintaining relationships with patients and other health care professionals. Then, as participants gained experience with the prescribing role, they gained confidence to expand prescribing to other areas. This expansion differed depending on the participant and the practice setting.

Mary described how “the professional open landscape” of the Alberta prescribing model compelled her to limit her prescribing while also affording opportunities to expand prescribing and meet patient needs. Initially focusing on minor ailments to prepare her APA application and include prescribing in her practice, Mary gradually began prescribing in areas outside of this focus area. In the community practice setting, she described what it was like not knowing what patient needs would present on any given day. She recalled:

> A gentleman came in and he was supposed to be started on a beta blocker for anxiety and he was unfortunately on an EpiPen® for bee stings. An interaction came up for the beta blocker and the EpiPen®. It was a Friday. This gentleman was obviously at a point where he needed help. I assessed him and we went through different options. I ended up doing an initial access prescription for an SSRI [antidepressant drug] for 14 days until he saw his physician. I felt like that was an appropriate [decision]. If I was restricted to only giving nystatin and hydrocortisone 1% [drugs to treat some minor ailments] then this gentleman could have been in a different situation. Sometimes people need access with punctuality and I was able to give that and start him on something that hopefully was going to help the situation… Maybe parameters of guidance would be helpful but at the same time it is nice to be able to help patients if it makes sense.

This prescribing decision was significant for Mary. The patient's anxiety was severe, requiring an intervention with a prescription medication. Mary's experience reflects the opportunities pharmacists with APA have to expand prescribing beyond established limits. In this situation, she was able to be flexible. She prescribed to address a specific and emerging patient need. She redirected her focus to the patient, away from a drug/focus area. Building on her experience with minor ailments, she expanded her prescribing to other areas. Delilah reported similar experiences, noting that having APA "stretched my boundaries and it has stretched me. It will continue to stretch me in ways that make me uncomfortable sometimes". Gaining experience with prescribing in one area built tolerance for risk and prompted participants to prescribe in other areas.

Isabelle also expanded her prescribing over a period of two years as she gained experience and confidence. She, like Mary and Delilah, examined how she made prescribing

decisions. She expanded prescribing to areas that she did not plan or imagine before having APA, such as compression therapy: “It is something that I probably use my prescribing for a lot now that I really did not anticipate”. She described a process of questioning her own boundaries to prescribe within her areas of competence and meet the needs of both individual patients and the health care system. In this example, Isabelle weighed the risks and benefits of expanding her prescribing practice:

> You really have to think about what you are doing when you are sending [patients] to a doctor. Is it because you do not feel that you have the confidence to do it? Are you just not quite sure you want to put your name on a decision? Think about the impact when you send people to urgent care all the time.

Delilah described a similar realization related to the impact of deciding between prescribing and referring patients for medical care: “I am still struggling with, oh wait a minute, I do not have to send you anywhere. I can manage it here at least at the first level. That is where [APA] has really stretched me”. For her, expanded prescribing involved taking more responsibility for patient care. In future, as patients and the public become more aware of pharmacist prescribing services, demand for pharmacist prescribing may encourage further expansion (Breault et al., 2017).

Participants in specialty clinic and hospital pharmacy practice settings described the process of expanding the prescribing role. For Adam, the change to a new practice setting required him to do more prescribing. Adam initially limited his own prescribing to the same focus area he chose for his APA application. Within a few years of having APA, Adam went beyond this initial focus area, transferring his practice to new specialty areas: “I feel comfortable using [APA] in any sort of practice setting as long as I am comfortable in the therapeutic area”.

Gaining experiences with prescribing and facing new situations in the workplace provided participants with reasons to expand the prescribing role.

While pharmacists in community practice expanded prescribing in response to patient needs, changes for pharmacists in other practice settings were related to the work processes of the team. Hospital and specialty clinics have many prescribers; expansion of pharmacist prescribing was incorporated gradually in team activities for some participants. For example, Rachel and Stephen expanded prescribing gradually as clinic physicians and nurses became aware of their authority to prescribe. Rachel noted that her prescribing role expanded "because now the physicians know". Stephen's prescribing role expanded to "gradually become almost first nature. Myself and my colleagues, including the nursing staff in the clinic, often check to see if there is something that I can offer a patient". Participants in hospital practice observed a similar expansion as their nurse and physician colleagues became aware of their ability to prescribe. John saw opportunities to expand to provide more services or prescribe in new specialty areas when all pharmacists are authorized to prescribe: "I would like my team to all have their APA so then I can approach the physician group and say this is a service that we could provide".

The findings of this study reflect the transition from an initial focus to limit prescribing to expanded prescribing in various practice settings. Rosenthal et al. (2015) surveyed 65 pharmacists who had obtained APA. The survey was conducted in 2012. Pharmacists reported prescribing in similar focus areas, for example, diabetes and hypertension, to those of the participants in this current study and those reported by Guirguis et al. (2017). Pharmacists also prescribed analgesics and antibiotics, providing acute drug therapy, which suggests an expansion of prescribing from those initial focus areas. However, expansion was not a specific focus in that

study (Rosenthal et al., 2015). Expansion of prescribing was not addressed by other research on pharmacist prescribing in Alberta (Guirguis et al., 2013; Guirguis et al., 2017; Heck et al., 2017; Makowsky et al., 2013). Guirguis and colleagues (2017) noted that pharmacists in their study were not prescribing to the full scope of practice afforded to them by APA. However, the authors noted that "as the focus of pharmacy moves from the product to the patient, pharmacists may find an increased need to prescribe" (Guirguis et al., 2017, p. 66). A movement to expand prescribing in response to a patient focus was also observed in this current study, as participants based prescribing decisions on patient need versus limiting themselves to certain *a priori* defined focus areas for prescribing.

Research on prescribing in the United Kingdom addressed expansion of prescribing. Bowskill et al. (2013) reported increased confidence of nurse prescribers following an initial period of practice with limitations on prescribing. However, no further details were provided in the study. Pharmacists participating in the study of Maddox et al. (2016) noted that expansion of prescribing was restricted due to a lack of professional development courses and tools. As previously discussed, participants in this study working in community practice settings were engaged in continuing professional development programs, including certificate programs such as Certified Diabetes Educator (see http://www.cdecb.ca/). This greater access to prescribing-related programming may explain why the participants in this study expanded prescribing over time.

The process of limiting and expanding prescribing was discussed in this section. Imposing initial limits on prescribing was integral to making sense of the prescribing role because it provided information to participants about what they could do as prescribers in relation to others. Identifying a focus area provided a starting point for the prescribing role.

Focus areas and boundaries were flexible and negotiated in relation to others within the practice environment. Over time, prescribing experiences and patient need provided stimulus to expand to additional areas of focus, adjust boundaries, and assume more responsibility for patient care. Through limiting and expanding their prescribing activities, pharmacists engaged in the process of making sense of their role. The third category, balancing collaboration and independence, further explores how participants enacted and made sense of the prescribing role.

Balancing Collaboration and Independence

For participants in this study, making sense of the prescribing role involved balancing collaboration with other health care professionals and independence as prescribers. As discussed in Chapter Four, prescribing by pharmacists was positioned alongside collaboration with other health care professionals as a discourse constructing pharmacists' identities as prescribers. The discourse of interprofessional collaboration reflected both how pharmacists initiated prescribing and how it was a natural extension of work they were already doing in their various health care teams. Similar to other professions, participants enacted the prescribing role in collaboration with other health care professionals and as independent prescribers along a spectrum of prescribing activities (Given & Willson, 2015). Participants shared information after prescribing independently or as part of the process of making prescribing decisions. The types of information sharing varied according to the purpose.

Talja (2002) described four types of information sharing: (1) strategic to maximize efficiency, (2) social to form relationships, (3) paradigmatic to create novel approaches across disciplines, and (4) directive to provide information. In the interviews with participants in this study, all four types of information sharing are evident. The practice setting and proximity to other health care professionals influenced the type of information sharing in which participants

engaged. Participants adapted their information approaches as needed. Those in community pharmacy settings sought opportunities to collaborate with other health care professionals to support the prescribing role. Those with team-based practices customized the prescribing role to fit their workplace setting. Collaboration with other health care professionals required participants to make sense of the prescribing role in relation to others in a context-specific way. Collaborating with others supported pharmacists' development as independent prescribers. In the following sections, the process of balancing collaboration and independence is explored through a discussion of pharmacists' experiences collaborating to prescribe and prescribing independently (Figure 5.4).

Figure 5.4. Balancing collaboration and independence.

Collaborating to prescribe. Participants in community pharmacy settings explored opportunities to prescribe in their practices. George believed that the prescribing role required collaboration: "To be effective in what we do, we need to collaborate". Following APA, George intentionally reached out to physicians in his community. He sought to use his prescribing authorization to care for patients in areas that complemented, not duplicated, those provided by physicians in his community. For example, despite having developed expertise treating patients

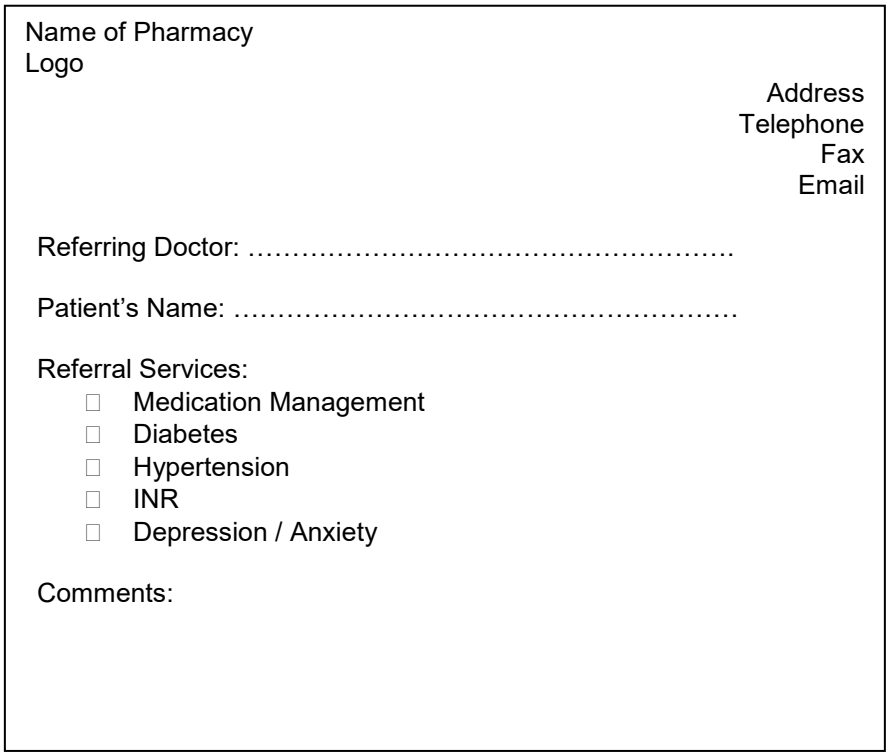
for hypertension, he chose not to offer services in that area because his community had a "core group of doctors around that manage hypertension quite effectively" (George). In building relationships with physicians in his community, he identified other opportunities to prescribe. He did this through "inviting personal relationships" with physicians, meeting with them to talk about specific areas in which he could provide patient care services.

George provided information about the prescribing role to physicians. This social information sharing helped to build relationships and community between this pharmacist and the physicians in his practice setting (Talja, 2002). George observed that physicians needed information regarding his areas of expertise, for example, by asking "what [areas] you are prescribing in [seeking to] gauge your competency level". George felt he could establish credibility and demonstrate his expertise as a prescriber by sharing information about his prescribing focus areas and credentials. Through strategic information sharing, he created new collaborative relationships to support and further develop his prescribing role. Information sharing was integral to establishing trust in the relationships with physicians in the community. Other research reported the importance of personal contact to establish collaborative relationships (Donald et al., 2017).

George developed several collaborative relationships with physicians in his community. He worked closely with a physician who "prefers to just diagnose and give some of her ideas of risk factors and just send it to me… she has great confidence in what a pharmacist can do, especially with drug therapy". They negotiated roles involved in patient care: the physician's role included diagnosing patients' conditions and George's role included prescribing. Information sharing through ongoing communication was integral to their trust relationship. George used information provided by the physician, along with information he gathered by performing his

own patient assessments, to make prescribing decisions independently. Sharing information and documentation with the physician about his prescribing decisions ensured effective communication regarding patient care on his end. Through this collaborative relationship with clearly defined roles and information sharing processes, George made sense of the prescribing role in his practice setting and built confidence as a prescriber. Clearly defined roles facilitated development of trust in the collaborative relationships (Donald et al., 2017) and confidence in the role (Bowskill et al., 2013).

Naomi looked for opportunities to collaborate while integrating prescribing in her practice. She, like George, set out to collaborate with physicians in her community. Naomi met with physicians to talk about her educational background, certifications, and practice experience in mental health care, chronic pain, and addictions. She talked to them about her focus areas for prescribing. To facilitate information sharing, Naomi developed a referral form designed to complement traditional prescription pads (Figure 5.5). The referral form prompted physicians to provide relevant patient information required for prescribing, for example, regarding diagnosis. The form included a list of Naomi's prescribing focus areas: hypertension, diabetes, anticoagulation monitoring, and mental health conditions (anxiety and depression). Naomi personally met with physicians near her pharmacy and distributed referral forms. This approach worked well, facilitating the building of information relationships and fostering collaboration. Physicians completed the referral form and provided it to patients needing drug therapy. Patients, in turn, became aware of her prescribing role. Instead of arriving at the pharmacy with a prescription, patients presented a referral form.


Name of Pharmacy
Logo

Address
Telephone
Fax
Email

Referring Doctor: ……

Patient's Name: ……

Referral Services:
- Medication Management
- Diabetes
- Hypertension
- INR
- Depression / Anxiety

Comments:

Figure 5.5. Pharmacist prescribing referral form.

This pharmacist-developed referral process facilitated strategic and social information sharing between Naomi and the physicians. It served to build relationships and clarify roles for the physicians with respect to making a diagnosis and for the pharmacist regarding focus areas for prescribing. The process facilitated proactive information sharing and collaboration between the pharmacist and physicians: "Physicians are happy to do that… the physician is sending [patients] to me and they are giving me the information. So the physician is initiating it. So that is beautiful" (Naomi). For Naomi, receiving information validated her prescribing role and signaled trust in her abilities. The acceptance of this pharmacist as a prescriber encouraged Naomi to expand her prescribing role.

The discourses that emerged in the construction of pharmacists as prescribers differed with respect to how George and Naomi enacted the role in their community practices. Their

experiences exemplified prescribing in focus areas supported by expertise in collaboration with physicians. This was consistent with the concepts highlighted in Chapter Four in relation to the discourse of expertise. For example, focus areas and certified specialty areas were observed in the enacting of the prescribing role in the community setting. However, with respect to the discourse of interprofessional collaboration mentioned in Chapter Four, access to information was identified as a potential barrier for community pharmacists. Both Naomi and George enacted the prescribing role in ways that resisted how the role in community pharmacy practice was discursively constructed. The discourse positioned community pharmacists as disadvantaged due to challenges accessing the information necessary to fulfill the prescribing role. Pharmacist prescribing research highlights difficulties building relationships when pharmacists are not co-located with physicians and therefore must rely on telephone or fax communication to share information (Guirguis et al., 2017; Jenkins, Hughes, Mantzourani, & Smith, 2016). The information sharing approaches highlighted in Naomi's and George's practices demonstrated an active pursuit of strategies and opportunities to establish information sharing with physicians in their communities in order to fulfill the prescribing role.

Another participant experienced challenges in addition to opportunities arising from information sharing. Delilah shared a conversation she had with a physician after he had read some documentation faxed to his office:

> A doctor phoned me and said, "That was a terrible choice". I said, "Okay tell me about it..." He was very angry. I said, "You are right. You are absolutely right. I am really sorry." Basically, his beef was I had not communicated with him [about] this particular choice. I had made the choice with this patient. The patient went in to see him and told him what I had done… He phoned me, which I actually appreciate because at least on the

> phone I get a chance to let them know that I hear him and that I understand where the concern is. He calmed right down after I said, "You are right, that was a terrible choice. This is why I made it", which does not justify the fact that it was not a good choice. It was not harmful to the patient. It was just harmful to the relationship… We have had a wonderful relationship ever since. He has been wonderful. I have learned a lesson… I have to include the other people who are involved in this [care of the patient].

Delilah's conversation with the physician about her prescribing decision was part of an experience involving frustration, stress, and anger. Information sharing involves an affective dimension (Nahl & Bilal, 2007) that contributed to making sense of the prescribing role for her. Delilah recalled this experience when she collaborated with other physicians, taking care to consider the type of collaboration required; in this case, social information sharing was used to form relationships and strategic information sharing to maximize efficiency (Talja, 2002). In addition, she treated each prescribing encounter as an opportunity to make an independent decision and subsequently apply directive information sharing to provide necessary information to all parties (Talja, 2002). Communicating about prescribing decisions, participants used all types of information sharing as they enacted the prescribing role. Delilah's initial approach of using directive information sharing contrasts the approaches used by Naomi and George.

Participants established processes to collaborate with other health care professionals to support their prescribing activities and offer pharmacy services to patients. Kate described how she "created partnerships" with nurses at the travel clinic, the health unit, and a physiotherapist in her community. Similar to other participants, Kate negotiated with others to define roles for each collaborator, as follows. The nurses and physiotherapists performed patient assessments related to their scope of practice. For example, Kate explained that "the travel clinic would do

their assessment and then give me the recommendations based on antimalarials or some of the immunizations". In addition, nurses at the local health unit referred patients to Kate for specific medication-related needs. In one example, Kate addressed the needs of women with newborn babies: "I would get referrals for diaper rash, nipple cream, [and] thrush". The physiotherapist "did the assessment and if the client needed an NSAID or some other med[ication], like a muscle relaxant, they would refer them to me". Similar to the cases of George and Naomi, the other health care professionals collaborating with Kate provided a diagnosis. Kate's role was to prescribe and manage medication therapy. Kate felt that having APA meant she could implement new pharmacy services previously not offered by pharmacists in her community. Seizing opportunities to offer previously unavailable services was also part of Isabelle's experience prescribing compression stockings, as described in a previous section in this chapter. Thus, identifying focus areas for prescribing, building relationships, defining roles, and sharing information were all involved in participants' fulfilling the prescribing role and offering new services.

Paradigmatic information sharing in this study involved innovation to support prescribing in community pharmacy settings. Previous research has found that collaboration was associated with development of new services provided by prescribing pharmacists (Hobson & Sewel, 2006; Makowsky et al., 2013). Information sharing is part of this collaboration; however, other factors in the practice environment must also be considered. As described in Chapter Four, the province of Alberta introduced the Compensation Plan in 2012 to pay community pharmacies for services provided by pharmacists. One guiding principle of the Compensation Plan aimed to support pharmacists in using their extended scope of practice, including APA (Breault et al., 2017). The Plan compensates pharmacies at a higher rate when a pharmacist with APA provides services.

Recent research suggested that compensation was associated with increased service provision covered by the Plan. Bharadia, Lorenz, Cor, and Simpson (2017) conducted a cross-sectional survey of Alberta pharmacists providing diabetes care services in community pharmacy practice settings. Pharmacies that received compensation under the Plan were more likely to have pharmacists with APA who participated in disease management activities for chronic illnesses such as diabetes (Bharadia et al., 2017). Community pharmacists in this current study took advantage of opportunities created by the Compensation Plan to integrate prescribing in their practices and offer new services in collaboration with other health care providers, thus creating new paradigms of practice.

The participants in this study who worked in community pharmacy settings intentionally pursued opportunities to collaborate with other health care professionals as they enacted the prescribing role. They built relationships, clarified roles, and fostered interprofessional collaboration. Sharing information also created opportunities for other health care professionals to make sense of or better understand pharmacists' prescribing role.

Prescribing independently. While collaboration was integral to the prescribing activities of participants in this study, many aspects of prescribing decision-making were independent. In Hannah's hospital pharmacy practice, she was assigned to a team comprised of several potential prescribers, including senior and junior physicians, physicians in training, nurses as well as other health care professionals. In contrast to participants in community practice settings, hospital pharmacists tend to prescribe less often because of being co-located with physicians (Guirguis et al., 2017). Hannah explained that she did not prescribe or write the medication orders in the chart when the team was physically working together in the same location. However, she found opportunities to prescribe "in the afternoon when the team is no longer together". She described

a specific opportunity for prescribing in her practice in the focus area known as "therapeutic drug monitoring", a clinical pharmacy service provided by pharmacists to maximize drug doses based on measurements of drugs, or levels, in the patient's blood and other patient-related considerations. Hannah explained:

> I think the areas where I would say I have done the most prescribing have been areas related to therapeutic drug monitoring, when you are monitoring vanco[mycin], but the level is coming back [from the laboratory] at 3:00 in the afternoon when no one is around. So that presents an opportunity.

In this example, Hannah prescribed independently with no input from the team. Thus, by adjusting her prescribing activities depending on the circumstances of her work, Hannah found opportunities to make the prescribing role fit with her existing role as a team member.

Prescribing authority represented a subtle change in how Hannah enacted her role. The professional activities leading up to a prescribing decision remained the same as before the implementation of APA. However, prior to having APA, she would have completed the therapeutic drug monitoring assessment and subsequently contacted a physician on the team with her prescribing recommendation. After acquiring APA, Hannah replaced recommending with prescribing. Hannah's experience points to the contextual considerations that make prescribing in a hospital practice setting different from prescribing in a community practice setting, as described in Chapter Four. However, Hannah had engaged in prescribing-related activities before having APA. She viewed the prescribing role as a natural extension of her work. After acquiring APA, Hannah found that her practice was "not completely different than it was before", but that the change was "subtle [due to] the way my team functions. A lot of what we do in the day we get done as a team on rounds" (Hannah). Collaboration, which involves sharing of information

(as discussed in the previous section) and making decisions together as a team, was an established part of her daily work. Sharing information, knowledge, and decisions was integral to the team's work. However, she perceived one important difference: her sense of responsibility. After APA, she asserted herself in the team decision-making process. She emphasized that when the team made a prescribing decision, "it might not actually be me prescribing in those [situations], it might be my suggestions" (Hannah). In those situations, Hannah documented her role in the prescribing decision-making process in the patient chart to make her responsibility visible. Established team processes and occupying dual roles as team member and prescriber explained why Hannah did not use her prescribing authority when the team was physically co-located.

In Chloe's hospital pharmacy practice, she contributed to prescribing decisions made by her team. Her experiences were similar to those described by Hannah. Depending on the work flow of the team, she would either independently "write that order" in the patient's chart or confer with team members before prescribing:

> We certainly make an effort to make decisions as a group… I am often the one saying, "I think it is time to switch this person [to another drug]. I think we can do this instead". I can go write that order. Other times, we divide and conquer a little because there are patients that need to be seen… I go in and see that because of xyz, things need to change. I will write those changes, and I will come back, and I will tell people. So, it is a bit of both.

Chloe considered whether or not she would prescribe based on the workload and her proximity to another prescriber. If a physician prescriber was available, often Chloe did not prescribe. She considered established roles and structures of team-based practice in her decision-making.

Olivia highlighted the influence of teamwork in hospitals when she spoke about her previous experiences in hospital practice:

> If you are in the traditional hospital team, where you are in a big team… it is very hierarch[ical]. Most times you still have the attending [physician], and then you have the residents, and you have your students, medical students, and then you have the rest of the team. Everything still goes back to the physician a lot of times… It is just the way it is.

According to Olivia, pharmacists in hospital settings prescribe less often because of the number of prescribers and the hierarchy of authority. There were many potential prescribers and prescribers in training (medical residents, medical students, and pharmacy students) involved in the hospital teams in her experience. With so many physician prescribers on the teams, the opportunities for pharmacists to prescribe independently were few. Olivia considered pharmacists below physicians on the hierarchy of prescribers. However, other participants in this study working on hospital teams found opportunities to prescribe independently. Neither Hannah nor Chloe described this work context as problematic. Rather, their approach was in line with Olivia's observation: "It is just the way it is".

Philip had several opportunities to prescribe in his hospital pharmacy practice. He described daily interactions with team members from different health care disciplines. Philip's, Chloe's, and Hannah's hospital pharmacy practices differed in terms of physical proximity to physicians. In Philip's practice, physicians were rarely on the unit when he and the other team members saw patients. He explained:

> You are in one area. You have got the patients there. You have got the charts there. Then you have all the disciplines. You are bumping shoulders all the time. So collaboration primarily is that your peers in other disciplines know the patients from their own

> perspective… people are able to very efficiently collaborate from their own professional perspective about the same patient. That happens all the time, which means that it is efficient. It happens a lot. We transfer things back and forth. Rehab is always telling me "patient Black has a pain control issue that is limiting his rehab. [Do] you know about it?" I say yes or no, and I prioritize whether I can make an intervention on that. This is how things go on our unit… We do that independent of the physicians being around and then [collaborate with] the physicians [when they] are around… Collaboration is occurring not just for pharmacists, but also with all the disciplines, including where the traditional prescribers fit in.

When the "traditional prescribers" were not physically present to make certain prescribing decisions, Philip had more opportunities to prescribe. Team members from other disciplines on the unit shared information and perspectives to inform prescribing decisions. In many situations, Philip shared information with physicians after the fact. This was in contrast to Hannah's experience, where the entire team discussed prescribing decisions. Even though Philip prescribed independently, there were situations when he deferred prescribing decisions until he could communicate directly with the physician, as described earlier.

In John's hospital practice, nurses brought opportunities for independent prescribing to John's attention. John's prescribing authority was considered as an asset that improved efficiency and patient care. Since physicians were not always physically present, nurses contacted John to prescribe:

> I would say probably the people that have been the most open [to prescribing by pharmacists] is nursing. They absolutely love it in the sense they do not have to go to [a]

> physician if we have things that could be [substituted] or given by a different route… they find it quite helpful.

In one example, nurses were seeking to change a drug formulation for a patient who could no longer swallow a tablet. John was comfortable collaborating with the nursing staff to prescribe in this situation, similar to the partnerships Kate created with nurses in her community practice setting. The nurse's role was to assess patient need and John's role was to prescribe. Nurse colleagues recognized a change with his prescribing authority. When physicians were not in close proximity, nurses and other health care professionals looked to him as a pharmacist prescriber.

David provided patient care to residents in long-term care facilities as part of his community pharmacy practice. He was not part of the long-term care staff, and thus did not have an established role on the team, in contrast to participants working in hospital practice settings. David chose not to prescribe when at facilities in which physicians were physically located. He completed medication reviews and provided recommendations for "medication that needs to be adjusted". However, David looked for opportunities to fit prescribing in his practice at the long-term care facilities when physicians were not physically located. He identified an opportunity for independent prescribing related to the Alberta Health Services (AHS) policy on influenza prophylaxis:

> AHS said every supported-living individual, so [those residing in] retirement lodges, supportive living, long-term care, should all have a prescription for Tamiflu®. [I wanted the residents to] have a prescription on hand so if an outbreak occurs [they] get that prescription within 24-48 hours. Last year the average time in supportive living was 72-

> 96 hours for the first dose. After 48 hours, it is not worth it… I wrote probably about 1,000 Tamiflu® prescriptions.

Similar to George, David felt that his prescribing role was complementary to prescribing by physicians. For David, independently prescribing Tamiflu® met an important patient care need. He was comfortable with this focus for prescribing and the boundaries he created for prescribing at his practice sites.

While David looked for opportunities for prescribing independently, he was mindful of established procedures and hierarchies: "There are some things that I do not do because I do not want to jeopardize that relationship". David balanced collaboration and independence to meet patient needs and preserve trusting relationships.

In this study, participants in non-traditional teams, such as specialty clinics, had many opportunities for independent prescribing. The phrase "non-traditional team" refers to non-hospital teams where pharmacists are associated with physicians, but may not be co-located with them in the course of providing patient care. For example, Adam's practice was not physically co-located with those of physicians. While physicians were associated with the clinic, they were not physically present when Adam made prescribing decisions. Adam considered this arrangement as supporting the prescribing role:

> We had a fairly autonomous practice, yet I would still view it as collaborative in the fact that we had physician colleagues… to consult with on specific patient situations where we felt we needed some extra expertise helping make a decision. Our collaboration in that sense with physicians was mainly to get backup or reinforcement.

Adam's role included assessment of patients' medication therapy and independent prescribing. Collaboration occurred with the other pharmacists associated with the clinic to support

prescribing decisions. Similar to participants in other practices settings, for example, Kate, Philip, and John collaborating with nurses, information sharing occurred with health care professional colleagues co-located or in close proximity (Leckie et al., 1996).

Kimberly managed patients independently in specialty clinic settings co-located with a physician. Kimberly noted, “I essentially manage [patients] independently, but have this physician to check in with if there’s something I am not sure about. He does the same with me, you know, in and out of each other’s rooms during the clinics”. She explained how they consult each other for a second opinion on assessments or for validation of a prescribing plan. Brooke described a similar working arrangement with physicians in her two clinics: “I see patients on my own and if I run into trouble, I will call [the clinic physicians] and ask their opinions. So, there is that back and forth and it is because I work with them so closely that it has allowed me to do that”. These participants further developed their independent prescribing abilities and broadened their expertise through collaborations with physicians.

Rachel also saw the effect of collaboration on her independence. She cautiously started prescribing and built confidence in her own decision-making through collaborating with physicians at the clinic: “When I knew they trusted [my prescribing authority], then I started to trust it more”. Once she had established relationships with physicians in the primary care setting, more opportunities for independent prescribing arose. Similar to Brooke and Kimberly’s experiences, Rachel’s collaborations created more opportunities for independence with prescribing. In her practice, establishing trusting relationships, sharing information, and frequent team interactions supported the process of making sense of the prescribing role.

An unexpected paradoxical relationship between collaboration and independence emerged in the analysis: as participants engaged more and more in collaboration, they gained the

ability to prescribe independently. For example, Kimberly observed that the more she collaborated with the physician in her clinic, the more independent she became. For Kimberly, this independence was possible because of the ease of information sharing; in addition, her relationship with the physician fostered an "ability to over time be honest with each other". This was an example of the paradigmatic information sharing described by Talja (2002) resulting in a new role for Kimberly that she "never could have envisioned". Collaboration among health care professionals in non-traditional roles at specialty clinics supported development of the prescribing role for pharmacists outside of their hospital or community practice settings (Dikun et al., 2016). The co-existence of independence and collaboration in the prescribing role was also present in the discourse of interprofessional collaboration in Chapter Four. Experiences of the participants in this current study point to independence balanced with collaboration in team-based practice settings. As previously discussed, participants working with teams in hospital practice settings described team benefits arising from their independence as prescribers. Other researchers drew attention to the paradox of interprofessional collaboration in collective decision-making (Huq, Reay, & Chreim, 2017) and the contribution of autonomy to team functioning (MacNaughton, Chreim, & Brougeault, 2013).

Finding the balance. Both collaboration and independence were integral to enacting and making sense of the prescribing role. Participants collaborated with others to create new opportunities to prescribe or to fit prescribing into team practice. As discussed in Chapter Four, there were variations in how pharmacists engaged in collaboration associated with the prescribing role. The experience of community pharmacists differed from that of pharmacists working in other practice settings. The prescribing role was discursively constructed as collaborative, yet challenging due to community pharmacists' proximity (or lack of it) to other

health care professionals and degree of access to information. Some participants in this study enacted prescribing in ways that opposed the traditional characterization of community pharmacists while successfully engaging in collaboration and sharing the information required to support the prescribing role. Clearly, the discourse asserting that collaboration was essential for the success of pharmacist prescribing was supported by the experiences of the pharmacists participating in this study. However, collaboration was enacted in a variety of ways appropriate to the practice environment.

Proximity to other health care professionals influenced how participants collaborated and enacted the prescribing role. Most participants deferred to the prescribing authority of other prescribers when they were in close proximity. This finding was in accordance with those of MacNaughton, Chreim, and Brougeault (2013), who found that "collaborative roles occur where team members have frequent interactions and knowledge exchanges; autonomous roles occur where team members have fewer interactions, less collaboration and work more independently from each other" (p. 5). Previous researchers observed that Albertan pharmacists co-located with physicians were less likely to prescribe independently (Guirguis et al., 2017). For the most part, participants practicing in team-based settings did not prescribe independently when co-located with physicians. Participants in community practice tended to prescribe independently. However, some participants practicing in unique and emerging roles in primary care and specialty clinics, for example, Rachel, Kimberly, and Brooke, prescribed independently despite having frequent exchanges and working in close proximity with physicians.

Collaboration fostered possibilities for participants' contributions to patient care in community, primary care, and team-based settings. The balance between collaboration and independence was fundamental to their enacting of the prescribing role. The examples discussed

in this section highlighted two ways to view collaboration described in research by other scholars as utilitarian and emancipatory (Haddara & Lingard, 2013). Participants collaborated as prescribers to contribute to the work of others to provide patient care (utilitarian) and to apply their expertise to prescribe independently (emancipatory). Collaboration and independence were not concepts framed in opposition or tension by participants. Rather, participants enacted the prescribing role in ways appropriate to the practice environment, along a collaborative spectrum including independent decision-making (Given & Willson, 2016). In addition, growing independence signaled an evolution of the prescribing role for the participants in this study.

The experiences of participants in the hospital pharmacy practice setting drew attention to how pharmacists adapted their prescribing approaches, balancing independence and collaboration. They collaborated frequently with physicians and other health care professionals as necessary for the benefit of patients, but even when prescribing independently, there were elements of collaboration. Collaboration was also necessary to establish processes, clarify team roles, and work within hierarchies in the practice setting. Thus, collaboration actually facilitated independent prescribing in many cases.

This section highlighted the process of balancing collaboration and independence. It involved processes related to information sharing and responsibility associated with the prescribing role. The practice environment influenced the manner in which prescribing was enacted due to proximity to physicians or other health care professionals. Participants actively created new opportunities to collaborate with others to enact the prescribing role. Participants in practice settings co-located with physicians or as members of interprofessional teams, such as hospitals and primary care clinics, enacted their prescribing differently. Collaboration in all practice settings was dependent on information sharing, which served a variety of purposes:

maximizing efficiency for team processes, forming new relationships to support independent prescribing, creating new services for patients, and communicating prescribing decisions. Both collaboration and independence were integral to enacting and making sense of the prescribing role.

Theoretical Concept: Reconstructing Professional Identity

The analysis of participants' experience with prescribing, which was based on constructivist grounded theory, produced three categories: (1) integrating information about the prescribing role, (2) limiting and expanding prescribing, and (3) balancing collaboration and independence. The main theoretical concept emerging from the data, *reconstructing professional identity* (RPI), represents how participants realized responsibility for prescribing through an iterative process of active engagement with prescribing activities as authorized prescribers within the context of their information environments. As previously mentioned, participants' sense of the prescribing role evolved as they enacted and gained experience with it (Chreim et al., 2007; Pottie et al., 2009; Pratt et al., 2006). The prescribing role also evolved as participants constructed their professional identity. Professional identity is fluid, evolving, and socially constructed (Simpson & Carroll, 2008). RPI is an iterative process of identity construction (Figure 5.6).

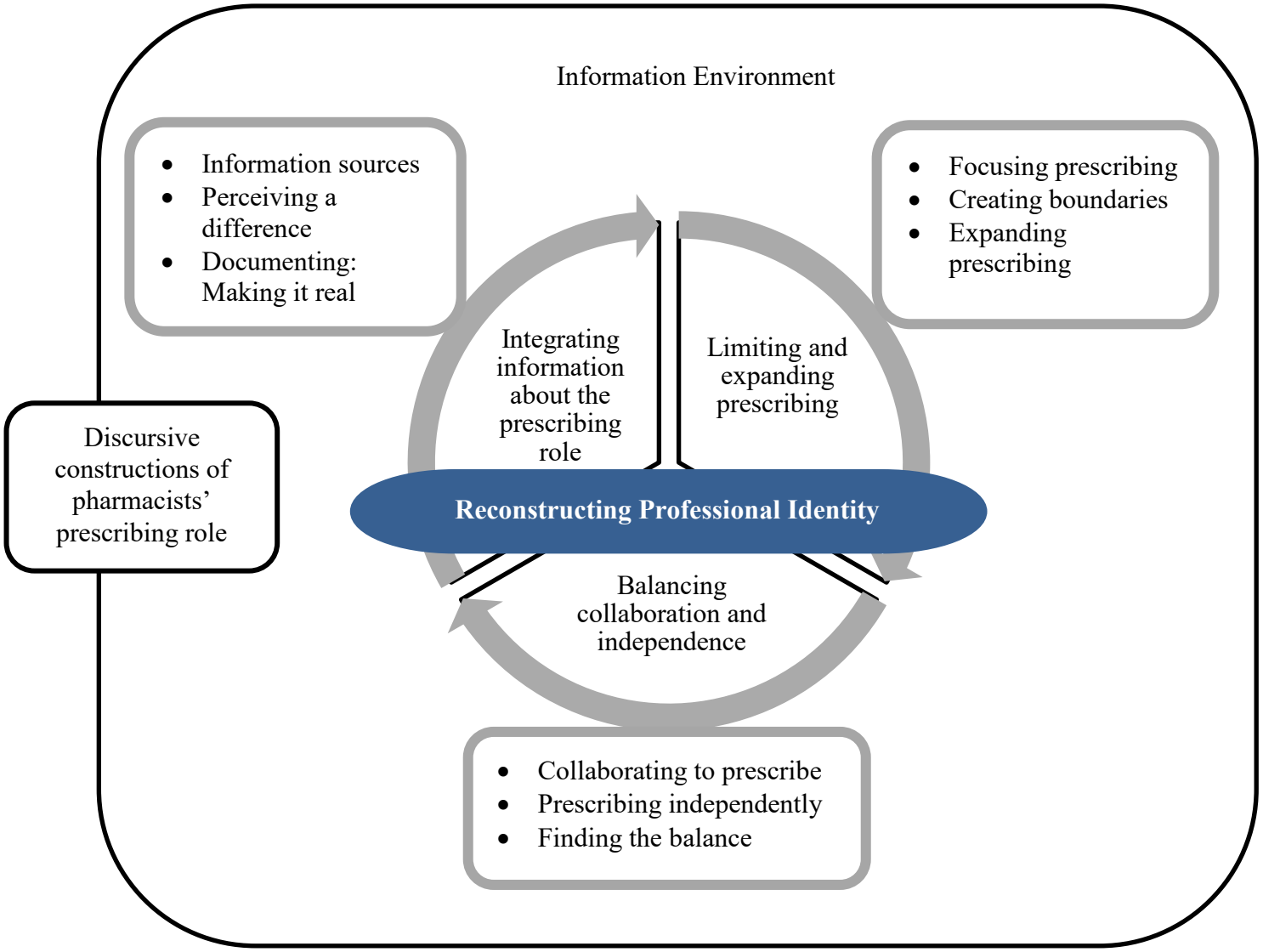


Figure 5.6. Reconstructing professional identity.

The participants in this study actively chose to adopt the prescribing role. Changes in professional identity are associated with a change in roles (Ibarra, 1999; Pratt et al., 2006). As participants enacted the new prescribing role, the RPI process was initiated (Weick, 1995). They reconstructed their professional identity by integrating new information about the prescribing role, limiting and expanding prescribing, and balancing collaboration and independence. As

discussed in Chapter Two, professional identity relates to how participants defined themselves in terms of their prescribing role (Chreim et al., 2007; Pratt et al., 2006). In this study, participants came to understand their roles and the world around them in relation to others (Burr, 2003). Information sharing and documentation were central to the RPI process. Participants' prescribing role continually evolved; however, it evolved differently for different pharmacists based on their individual experiences and practice settings. As participants experienced the prescribing role, over time it gradually became normalized. It represented one professional role among many others associated with the day-to-day work of pharmacists (Elvey et al., 2013). In the final section of this chapter, the evolving role, professional identity, and the role of information in the process of developing that identity are discussed.

Evolving role. The RPI process was as follows. As participants gained experience with the prescribing role, it expanded to include additional prescribing activities and responsibilities, which enriched their sense of professional identity (Pratt et al., 2006). Brooke found that the role involved more than she expected:

> The other thing that I've realized with having responsibility, being able to see patients and assess them and make the decisions on my own, is that there is a lot more work that goes along with that activity than I probably appreciated. It's not just about seeing the patient, making the suggestion, and then being done with it. You have to follow up with them. You have to communicate with other providers. [Patients] come back and there is a whole lot more work. And then if [patients] don't get to their target, then you are seeing them again and then a lot more steps along the way, which were never there before, because you didn't ever have to do that piece.

In the past, the physician would have had responsibility for patient follow-up after prescribing medications. Thus, Brooke engaged in activities formerly performed by other prescribers. Her previously "distorted view" of the prescribing role, formed while observing physicians, was expanded (Lingard et al., 2002). As she accumulated prescribing experience, she engaged in more prescribing activities, including patient assessment, prescribing, follow-up, communication, and "other steps along the way" (Brooke). While not all activities were completely new, they felt different due to the authority associated with APA and the responsibility that accompanies the prescribing role. Activities of her daily work and the roles of others changed because of this process of identity development.

Similarly, Rachel engaged in activities she did not expect to perform:

> When I graduated, pharmacy didn't assess [patients]. You didn't touch patients… I learned to touch for edema… after being with a team and seeing doctors put their hands on people, touch pulse, take and check a pulse. It adds so much more and it gives you more credibility with the patient. They understand that you are doing the same thing the doc is doing, right?

Rachel's prescribing role included new responsibilities such as physical assessment of patients. The RPI process involved engagement in new activities related to the prescribing role: physical assessment, comparing her role to that of physicians, and observing the reactions of her patients.

Through the RPI process, participants' prescribing role continually evolved. With each new day in the workplace, there were possibilities for expanding prescribing to new focus areas. For some participants, the prescribing role became normalized. It became "almost first nature… integrated as part of my daily practice" (Stephen). Philip agreed: "APA [and] independent prescribing [is] becoming a default scope of practice". While Adam initially viewed prescribing

as “an expanded scope of practice”, after prescribing for a number of years, he realized “it’s no longer expanded for me. It’s just part of my regular everyday practice as a pharmacist”. As in other research, the findings of this study point to a new sense of the role as part of an already existing professional identity (Pratt et al., 2006).

Not all participants viewed the prescribing role as part of their everyday practice. They experienced the process of RPI in different ways and at different intervals. The information environment, including practice setting and relationships, influenced how they enacted the prescribing role. Some participants did not prescribe as frequently as others. As previously noted, Eva did not have as many experiences prescribing as other participants due to logistical and procedural challenges in one of her practice settings. She was still in the early stages of the RPI process: “I just wish I had a better understanding of pharmacists’ prescribing work and how it fits in, in general” (Eva). As pharmacists experienced aspects of the process of RPI, they began to see the prescribing role and how it fit into everyday practice in a new light. Through their experiences, they gained new information about the prescribing role, which over time became one of many roles (Elvey et al., 2013) in addition to past duties and other elements of their professional identity (Goodrick & Reay, 2010).

Information. Information was integral to enacting the prescribing role and the reconstruction of professional identity. It was “the *red thread* of information” that tied together pharmacists’ prescribing role and their professional identity (Bates, 1999, p. 1048). Participants’ interactions with information and others and their experiences with information aided them in making sense of the prescribing role (Given, 2000). Documentation was the material manifestation of information sharing. It served an important function in the RPI process as participants engaged with the prescribing role in their workplace relationships, through language,

and in social contexts (Burr, 2003). Preparing written documents associated with prescribing made the role real. It represented participants' responsibility for prescribing (Pilerot, 2012).

The purpose of documentation (discussed in Chapter Four) was to share prescribing information to ensure quality patient care. Research on prescribing emphasized extra documentation as a barrier to pharmacists applying for APA and a challenge to pharmacists adopting prescribing in practice (Charrois et al., 2012; Makowksy et al., 2013). For some participants, documentation processes were an established part of practice, especially for those working in institutionalized settings such as hospitals and specialty clinics. However, for those in other settings, the documentation required for prescribing was a new aspect of their practice that required development. Regardless of the practice setting, participants spoke of challenges related to documentation.

As discussed previously, collaboration and documentation were integral to the prescribing role and information sharing was accomplished through verbal or written communication. Documentation ensured that vital patient information was shared. Information sharing and reciprocity are integral to developing and maintaining information-based relationships (Cross & Sproull, 2004). However, while pharmacists with APA are required to share information about prescribing decisions with other professionals involved in a patient's care, information sharing was often uni-directional, especially for participants in community pharmacy practice settings or those not co-located with physicians. For example, information sharing sometimes contributed to identity construction in a negative way. Delilah explained:

> I like [collaboration] in theory… I don't have physicians who call me and say, "By the way, this patient we've been working with for six months, I gave them this prescription and they probably went somewhere [else to fill the prescription]". They're not even

> required to tell me why they're writing the prescription. They send the prescription off, the patient brings it to me, I guess in the minds of those that are in power or the physicians themselves, that is collaboration. The patient comes to me with the prescription and I collaborate by filling it. They're not required to tell me what their diagnosis was or what their intention is with this prescription or what they've told the patient about it, if anything. I am required to ask all of that and to ascertain all of that, and… to document everything I've learned… My beef is I don't feel it coming from the other side… This idea that pharmacists do have this prescribing authority and it is supposed to be so independent, it's not like what the physicians get… I'm feeling a little second class.

This experience contrasts with those of other participants who experienced bi-directional information sharing, such as that resulting from Naomi's referral form or the information sharing between George and some physicians regarding patient diagnoses. For them, information sharing contributed positively to their experiences of the prescribing role and identity reconstruction. It signaled recognition and acceptance of the prescribing role. For all participants, sharing information led to a new understanding of the role and contributed to the development of professional identity, which were described in relation to others; for example, some participants felt that they were "second class" (Delilah) while others felt "on par with the physicians" (Rachel).

In the RPI process, information was integral to identity reconstruction. Documentation about prescribing decisions also revealed information about the prescribing role itself. It served several purposes in interactions with others and building relationships (Talja, 2002). Sharing

information was integral to both the prescribing role and development of professional identity. It involved social construction of professional identity in relation with others (Burr, 2003).

Professionals define their roles and identities in relation to others (Sluss & Ashforth, 2007). As participants gained experience with prescribing, their identities were framed in relation to other people. The discursive construction of pharmacists as prescribers (see Chapter Four) highlighted comparisons between pharmacists and physicians, which were prominent in participants' stories about their experiences with prescribing. Participants compared themselves and their prescribing activities to those of physicians. Some examples follow.

As Brooke gained experience she saw her prescribing activities in a new light: "You get an appreciation for… some prescriptions that physicians were writing. [You thought] this is a ridiculous dose. Why would they do that? It's so stupid! And then I find myself doing these stupid things". In this example, Brooke framed her professional identity in relation to that of physicians. Mary described her realization that having APA "puts [pharmacists] into the same arena as other professionals… allows us to be on steadier ground with other professionals. We are not always asking for their help. We are having a conversation with them instead". Olivia expressed pride associated with APA: "You know what it does? … I can talk [with physicians] on a more equal basis". John's approach to his work was similar to the way physicians approach their work. John described a situation when the roles of pharmacists and physicians were compared:

> I had done a session with a [physician for] second year medical students… it was a *guess your profession* type of thing. So they would give us cases and then each of the disciplines that were on the panel would just say what we would do. It was funny because the perception of some of the other [medical] residents was "Oh, well that's what we

> would do and look at". Yes, well, I'm a pharmacist… I think that they were quite surprised.

Rachel provided an alternate viewpoint highlighting differences between pharmacists and physicians in terms of the prescribing role:

> When I do prescription refills for the physicians, I have to cross every "t" and dot every "i". That's our College [standards of practice] and it's new for us, right? Physicians can just prescribe a refill for a colleague and they don't really look into the history and their creatinine [blood levels] in the lab, right?

In this example, Rachel described taking a cautious approach to prescribing. She observed the prescribing practices of others, alluding to expectations for follow up after a refill was prescribed.

Since pharmacist prescribing was individualized and varied for each pharmacist, there were no standard expectations established between physicians and pharmacists or among pharmacists themselves. Isabelle experienced differences among pharmacists first hand when her pharmacist colleagues without APA automatically referred patients to physicians for their prescription medication needs:

> They'll see a prescription from me and say, "Isabelle was the last person to prescribe it. It was from a pharmacist. So [patients] really need to go to a doctor". I say, well, I'm the one who started that medication. We have to start thinking about this in a different way. It's a tough habit to break.

Changes in roles and professional identity can be incremental and slow (Pratt et al., 2006). Through comparisons between themselves and other practitioners, participants made sense of

their role as prescribers. RPI therefore involved considering professional identity from different perspectives: who you are and who you are not (Ybema et al., 2009).

Evolving professional identity. Professional identity evolved along with a new sense of responsibility, and pharmacy practice advanced for both individuals and the profession as a whole. As discussed previously, when participants initially enacted the prescribing role, they did not anticipate changes associated with their role as authorized prescribers. They had a pre-existing frame of reference for the prescribing role based on information available to them in their information environments. When they enacted the prescribing role, they perceived a difference in their sense of responsibility compared to previous experiences with prescribing activities, a difference that provided new information about the role and initiated the process of making sense of the role (Weick, 1995). One participant noted that "responsibility is a word. It's passive unless you're doing it" (Brooke). Once participants were authorized as prescribers and enacting the prescribing role, responsibility was no longer solely the physician's; they could no longer remain passive in the process.

As participants gained experience, they sensed that the prescribing role was advancing their practice. This was consistent with aspects of the discourse of moving forward (see Chapter Four) as they began contributing more to patient care, elevating pharmacy practice to new levels, and enjoying greater satisfaction in their work. Most participants expressed a sense of satisfaction with their practice after enacting the prescribing role. After acquiring APA, Stephen reflected: "I respect my own abilities much more… There's a great deal of satisfaction in that". He viewed APA as "a crowning accomplishment. I have been able to build it into my practice for the last [number of] years. It has given me the opportunity to actually do more". Brooke explained:

> My practice is a lot more advanced than I ever thought it would be. I had always dreamed that it would be that way… but it really was not until I had that prescribing piece that I was able to enact everything and really care for a patient.

To Philip, APA meant "you had arrived as far as having something that you are responsible for". Kimberly found satisfaction in her relationships with patients in her new role in the specialty clinic and when she began prescribing. This satisfaction was based on

> …what the patients give back to me in terms of feedback, whether that they have improved or I am seeing the effect of the decisions I've made. The other big piece that I find satisfaction in is the benefits of the time that I take with patients versus the physician. Patients open up to me a lot more. They will tell me things that have been happening for months, years that they've never shared. I have this open interview style, I give them more time, and I ask specific questions. They come back to me with that and then I can really do something about those things. They don't have to necessarily suffer with a side effect or I can reassure them that this isn't related to this disease and they maybe should speak to so and so. I find that really satisfying too. I think that patients really value it. It's so nice to be valued, right?

Naomi reflected that the prescribing role "makes the practice better. So much better, and fulfilling. I enjoy my job better".

Participants spoke of the need for members of the profession to work together "moving forward", in accordance with the discourse described in Chapter Four. They referred to the future of the profession, supporting the idea that more pharmacists need to seek APA. Philip stated his position as follows: "I want to arrive as a profession, not as individuals. I was granted an APA license. In my view, I'm not special. I'm just a competent practitioner". To help in achieving the

goal of Alberta Health Services for all pharmacists to obtain APA (Gray & Mysak, 2016), John and Mary were involved with mentoring pharmacist colleagues thinking of applying for APA. In the community practice setting, Mary developed a presentation for pharmacists working within her community pharmacy chain. Rachel supported pharmacists in primary care and in a nearby community practice. Other participants were involved at the professional level providing continuing education and serving as reviewers for APA applications submitted to the Alberta College of Pharmacists. Some participants were involved in pharmacy education in their practice settings, promoting the prescribing role to students. Philip endorsed prescribing for pharmacy students on his unit at the hospital. He believed the following:

> If [pharmacy students] realize that [physicians' care of patients is not superior], they could much more easily arrive at the fact that they're going to have a very significant role if they see themselves as [needing to practice at] full scope… If [students] don't realize that… it's going to inhibit how students train, how they perceive themselves, and they're going to be too timid in implementing [their practice at full scope]. I think that's a big deal. That's a huge deal.

Stephen used a similar approach to training students in his specialty clinic; he included authentic prescribing experiences and emphasized the associated responsibility in his instruction:

> I think [APA] is meaningful when I have students. We have been a regular site for the fourth-year core and elective rotations for a number of years. It's kind of cool for students to see, wow, this really works. They can see how a pharmacist prescribing goes into practice. They hear about it in school, and during rotations, they have an opportunity to see how it really gets put into place and how it can benefit patients. I have fun with it sometimes when I will say, okay, you've got this patient that you're going to be assessing

> and you need to figure out what you're going to do in terms of assessing the patient, and treatment options, and how will you follow up on that, and how will you assess and make sure everything is fine. And, by the way, you'd better be right, because I'm going to prescribe whatever you tell me… I've never seen eyes go quite so big. Some students didn't feel they'd be taken so seriously in an elective rotation, where they'd actually have responsibilities that significant. I think it's a fantastic thing to be able to have students experience [prescribing] firsthand.

Most participants were committed to supporting greater engagement of pharmacists with the prescribing role. However, some participants expressed reservations, voicing concerns about maintaining high expectations for quality: "I'm so concerned that we're going to water things down and that's not good for the profession". There was some degree of reluctance to mandate prescribing for all. For some, adoption of the prescribing role was considered an important next step to advance the future of pharmacy (Fisher et al., 2017). Isabelle saw it as an opportunity for the profession to engage in "mindful change".

Summary

This chapter explored how pharmacists enact and make sense of their patient care role as prescribers. Using a constructivist grounded theory approach (Charmaz, 2006), the core theoretical concept, *reconstructing professional identity*, emerged from the three categories: (1) integrating information about the prescribing role, (2) limiting and expanding prescribing, and (3) balancing collaboration and independence. RPI represents how participants realized responsibility for prescribing through an iterative process of active engagement with prescribing activities as authorized prescribers within the context of their information environments.

Participants made sense of the prescribing role once they were authorized as prescribers. With authority for prescribing, participants experienced the prescribing role in new ways. APA brought about a new sense of responsibility in an already familiar role, but while participants had shared responsibility for aspects of prescribing before APA, having official authority for prescribing deepened their sense of responsibility. As participants enacted the prescribing role, the role and their professional identities evolved through relating to and collaborating with others. Information sharing was integral to the process. In the next chapter, a summary of the research questions, results, and implications are presented.

Chapter Six: Conclusion

This dissertation explored pharmacists' prescribing role in the context of the unique practice environment in Alberta. The overarching research problem was: How do pharmacists enact and make sense of their patient care roles as prescribers? Combining grounded theory and discourse analysis approaches in two phases of this study permitted an in-depth exploration of the prescribing role and experiences of pharmacists as they enacted and made sense of the role. Information behaviour, previous research on prescribing roles, and studies on professional identity informed the results of this study. In this final chapter of the dissertation, a summary of major findings of this study is structured according to the research questions posed in Chapter One. Following this summary, the study's research contributions and practical implications are discussed. The chapter concludes with an exploration of directions for future research.

Summary of Major Findings

Discursive construction of pharmacists as prescribers. Results from phase one of this study addressed the first research question: What are the discursive constructs of pharmacists' identities as prescribers? Three discourses were associated with the construction of pharmacists' prescribing role: (1) expertise, (2) interprofessional collaboration, and (3) moving forward.

Pharmacists were initially constructed as drug therapy experts, highly educated professionals, well suited for the prescribing role. However, over the 15-year timeframe of the data set analyzed in this study, construction of pharmacists' identity as prescribers shifted from drug therapy experts to medication managers providing patient care. Pharmacists' expertise was positioned in relation to that of others; usually they were compared to physicians. In some texts, their ability to prescribe was considered equal or superior. Pharmacists were constructed as already performing the prescribing role and in need of official authority to legitimize it.

Although pharmacists had existing expertise for prescribing, further experience in the areas of teamwork, collaboration with other health care providers, and documentation was required for them to assume the prescribing role successfully. Variations in expertise were attributed to pharmacists' education level, practice setting, and proximity to other health care professionals. Different degrees of preparation for prescribing were mentioned in the discourse of expertise. Pharmacists practicing in hospital settings and those with post-graduate training were positioned as better prepared for the prescribing role. Pharmacists were constructed as approaching prescribing in a highly individualized manner, enacting prescribing in specific focus areas corresponding to specialty areas based on their expertise. Pharmacists, in general, were portrayed as reluctant to apply for prescribing authorization because they did not have advanced education or identify as having a specific area of expertise.

Interprofessional collaboration was acknowledged as essential for pharmacist prescribing. Pharmacists were constructed as prescribing both independently and in collaboration with others. However, they were initially portrayed as favouring prescribing in collaboration over having autonomy for prescribing decisions. Later, pharmacists were shown as seeking a level of independence with the role. Collaboration was primarily associated with information sharing and occurred most often in collaborative environments. Similar to the discourse of expertise, different prescribing identities were noted in different practice settings. Pharmacists in hospital practices were positioned as experienced collaborators working in an ideal setting for prescribing, whereas pharmacists in community practice settings were portrayed as having more challenges collaborating with other health care professionals due to their lack of proximity to information and to those professionals. Despite these differences, pharmacists' identities and roles were constructed in the context of the health care team.

The discourse of moving forward framed the pharmacy profession as undergoing dramatic and ongoing changes associated with pharmacist prescribing. Pharmacist prescribers were constructed as affording individual practitioners with opportunities to elevate their practice to new levels, enjoying greater satisfaction with their work and contributing more to patient care and the health care system. Prescribing represented a significant change for pharmacists, contrary to the idea that pharmacists were already engaged in prescribing activities as presented in the discourse of expertise. In daily practice and the way pharmacists spent their time, a shift occurred to a greater focus on providing patient care. Along with advancement for individuals, pharmacists were depicted as contributing to the health care system by providing access to valuable services and saving time for both physicians and patients. The pharmacy profession was constructed as a profession in flux. There was a sense of incomplete change until the time when all pharmacists were authorized as prescribers and actively prescribing in their practices.

These three discourses provided a picture of how the professional identity of pharmacists as prescribers in Alberta was constructed by four professional organizations. There were dualities in these texts. Pharmacists were constructed as professionals with established expertise as drug therapy experts, yet needing to develop further expertise as patient care providers; they were described as having a prescribing role that was both independent and collaborative, and as members of a profession undergoing change at a time when few were engaged in the prescribing role. In addition, the differences in enactment of the prescribing role between hospital and community pharmacists were highlighted. Emerging identities of pharmacists in other practice settings, such as primary care and specialty clinics, were not as prominent. While the prescribing role was constructed as advancing the pharmacy profession, the individualized approach to

implementing prescribing illuminated inconsistencies in how pharmacists enacted the prescribing role.

The results of the first phase provided context for the second phase of the study by drawing attention to possibilities for how discourse shapes pharmacists' actions, relationships, and identities in their everyday practice (Talja & McKenzie, 2005). Drawing on the field of information behaviour, these results shed light on how an individual's experience is discursively constructed to accomplish action (Tuominen & Savolainen, 1997). The discursive constructs of pharmacists as prescribers identified in this phase of the study were evident in the pharmacists' experiences with prescribing.

How pharmacists make sense of the prescribing role. The second phase of this study explored pharmacists' experiences with prescribing. This section addresses the research questions: How do pharmacists make sense of their professional role as prescribers in the modern health care environment? How (if at all) has this role evolved? What are pharmacists' information behaviours in the context of their professional role as prescribers?

Reconstructing professional identity emerged as the main theoretical concept, which was found to be pervasive throughout all categories. It represents how pharmacists realize responsibility for prescribing as they make sense of the prescribing role. It is an iterative process of engagement with prescribing activities for pharmacists as authorized prescribers within the context of their practice settings. Professional identity is fluid, evolving, and socially constructed. As pharmacists' roles evolved, their professional identity also evolved. The categories related to reconstructing professional identity include: (1) integrating information about the prescribing role, (2) limiting and expanding prescribing, and (3) balancing collaboration and independence (see Figure 5.6, p. 183).

Making sense of the prescribing role involved integrating what was known about the role previously with actual experience as an authorized prescriber. The process of integrating information about the prescribing role may be described as moving "between external and internal information to understand the world, and usually act[ing] on that understanding as well" (Case & Given, 2016, p. 59). Pharmacists utilized both internal and external information when they applied for APA. There were two influential information sources: the Alberta College of Pharmacists' (2008a) *Guide to Receiving Additional Prescribing Authorization*, which specified the requirements for APA, and pharmacists' internal information based on their own previous experiences with the prescribing role. Other information sources used in making sense of the prescribing role were pharmacists' professional education and their relationships with others.

When enacting the prescribing role as authorized prescribers for the first time, pharmacists experienced a new sense of the role. The responsibility became real. They perceived a difference in their sense of responsibility, which provided new information about the role. Their experience challenged the pervasive discourse that APA legitimized an established, yet under-recognized, role of pharmacists. While the activities involved with the prescribing role were not new, prescribing was experienced in a new way after APA. A new sense of responsibility associated with the prescribing role materialized through enactment of the role as an authorized prescriber. The acts of signing a prescription or documenting prescribing decisions were integral to perceiving a difference and reconstructing professional identity. Documentation particularly represented responsibility. Documentation, as a key source of information shared with others about prescribing decisions, mediated the process of making sense of the role in relation to others. Documentation required changes to pharmacists' daily activities, particularly in community pharmacy settings where documentation processes were not previously

established. As pharmacists gained more experiences as prescribers and underwent the process of reconstructing professional identity, they continuously integrated new information about the prescribing role and their sense of the role evolved.

Pharmacists enacted the prescribing role in such a way as to ensure they were able to assume responsibility for prescribing decisions. This involved limiting prescribing to specific focus areas and prescribing within boundaries documented in the APA application. Identifying a focus area provided a starting point for the prescribing role. Focus areas corresponded to specific drug categories (e.g., anticoagulants) and conditions or diseases (e.g., hypertension). Pharmacists created boundaries based on their perceived ability to take responsibility for prescribing decisions, access to patient information, and relationships with physicians and patients. As pharmacists gained experience with the role, they did not limit themselves to prescribing in the focus areas highlighted in their APA applications or those initially chosen; rather, they expanded focus areas and adjusted boundaries to broaden the scope of the prescribing role. As those in community practice adjusted to the role, they expanded the number of services provided to patients. Their roles evolved as they limited and expanded prescribing. Focus areas and boundaries were flexible and negotiated in relation to others within the practice environment. They were associated with pharmacists' responsibility for prescribing decisions. Through limiting and expanding their prescribing activities, pharmacists made sense of the role and thus engaged in the process of reconstructing their professional identities.

Balancing collaboration and independence associated with the prescribing role involved processes related to information sharing and responsibility associated with the role. Both collaboration and independence were integral to the prescribing role. The practice environment influenced the manner in which prescribing was enacted due to proximity to physicians or other

health care professionals. Community pharmacists actively created new opportunities to collaborate with others to enact the prescribing role. They collaborated with physicians and other health care professionals, including nurses and physiotherapists, to establish new boundaries, relationships, and processes. In addition, collaboration supported independent prescribing. Pharmacists in practice settings co-located with physicians or as members of interprofessional teams, such as hospitals and primary care clinics, enacted their prescribing differently. Starting with established roles on the health care team, they sought opportunities for independent prescribing that fit into established processes, roles, relationships, and hierarchies. In these practice settings, independence supported teamwork. Collaboration in all practice settings was dependent on information sharing, which served a variety of purposes: maximizing efficiency for team processes, forming new relationships to support independent prescribing, creating new services for patients, and communicating prescribing decisions. Both collaboration and independence were integral to enacting and making sense of the prescribing role.

The theoretical concept that emerged in this study, *reconstructing professional identity,* explains the evolving role and the changing identities of pharmacists with prescribing authority. Pharmacists came to understand their roles and the world around them in a socially constructed manner. They made sense of the role in relation to others through language and behaviours, documentation, and information sharing. The prescribing role continually evolved; however, it evolved differently for pharmacists based on their individual experiences and practice settings. As pharmacists experienced aspects of the process of *reconstructing professional identity*, they began to see the prescribing role and how it fit into everyday practice in a new light. Gaining more experience with the prescribing role generated new information to apply to future experiences. For some, the prescribing role became normalized; one activity (prescribing)

became one among many other activities performed in the course of their daily professional work.

The discursive construction of pharmacists as prescribers generated information that influenced how pharmacists enacted and made sense of the prescribing role. The way information was used by pharmacists highlighted how discursive constructions influence pharmacists' making sense of the prescribing role and how their sense of the role was created or changed. This study illuminated how pharmacists make sense of the prescribing role.

Influence of professional education and professional development. Results from phase two of this study addressed the research question: What is the influence of professional education and professional development experiences on pharmacists' understanding of their role as prescribers?

Participants in this study were highly educated professionals. Professional education required to practice pharmacy in Alberta is currently the Bachelor of Pharmacy degree, the first professional degree. Optional post-graduate formal professional education completed by some participants in this study included Doctor of Pharmacy and hospital pharmacy residency programs. Both require a first professional degree in pharmacy and focus on the pharmacists' patient care role. The Doctor of Pharmacy degree combines classroom and experiential learning. These programs are typically offered over two years of full-time study or over three to five years of part-time study. Hospital pharmacy residency programs provide work-based experiential training in a variety of specialty areas, such as cardiology, internal medicine, and pediatrics, in a given health facility. Residencies are typically full-time programs completed over 12 months. The Doctor of Pharmacy and hospital pharmacy residencies completed by participants in this study were general programs that exposed them to a variety of patient care experiences, mentors,

and specialties. This is in contrast to professional education courses and certificate programs that focused on a specific area of practice (e.g., menopause) or patient care skill (e.g., patient assessment).

Participants emphasized the major influence of the first professional degree as developing their identities as drug therapy experts and lifelong learners. The first professional pharmacy degree influenced participants' identities as drug therapy experts by providing foundational education in pharmaceutical sciences and therapeutics. Expertise in pharmaceutical sciences was referred to as "the pharmacist's niche". The first professional degree in pharmacy provided a reasonable base with respect to drug therapy knowledge. However, additional knowledge and skills were required to apply their expertise effectively and to fulfill the prescribing role. In addition to foundational knowledge, the first professional degree nurtured their ability to learn continually throughout their careers, which aided them in expanding their scope of practice.

Doctor of Pharmacy and residency programs facilitated development of many essential skills. Additional experiential education in proximity to patients as well as exposure to other health care professionals and teamwork were considered essential for developing confidence and for successful fulfilment of the prescribing role. Professional education that provided opportunities to apply knowledge, develop critical thinking skills, build confidence, and work with others influenced participants' understanding of the prescribing role.

Continuing professional development courses and certification programs also influenced participants' understanding of the prescribing role. These programs inspired some participants to choose certain initial focus areas for prescribing, as required for their APA applications. In addition, some participants expanded their prescribing based on the availability of formal certification programs in areas such as diabetes, geriatrics, and menopause. Aside from providing

focus areas for prescribing, continuing professional development courses and certification programs helped participants build confidence in the role. The programs offered opportunities for participants to engage in formal educational events and network with other pharmacists and health professionals with similar roles and interests. Certificate programs offer credentials that signal expertise in areas such as diabetes (e.g., the CDE credential). While no formal recognition for specialization in pharmacy practice exists in Alberta, participants utilized certification programs to obtain expertise in areas of specialty. They noted that physicians recognized credentials for additional professional education and certificate programs, and that completion of these programs gave them a certain amount of credibility and validated their expertise as prescribers. This validation, in turn, influenced the development of collaborative relationships to support and further develop the prescribing role.

Professional education influenced pharmacists' understanding of the prescribing role. The first professional degree contributed to their professional identity as drug therapy experts by providing foundational knowledge and lifelong learning skills. Participants' understanding of their roles as patient care providers deepened through additional professional education and experiences with patients and other health care professionals. For some participants, additional professional education, including continuing professional education courses, influenced their choice of initial focus areas for prescribing. Credentials associated with such courses validated their expertise and contributed to further development of specialty areas of practice.

Research Contributions

This study contributes to the pharmacy practice literature by extending our understanding of the professional role of pharmacists as prescribers. The discourses of pharmacists' roles as prescribers highlighted the role of language in shaping understanding of professional roles. In

this study, the language used within the pharmacy profession to communicate about the prescribing role was brought to the fore. This research addressed a gap in the literature on pharmacist prescribing. It was the first study to explore experiences of pharmacists with APA in Alberta. It complements our understanding of pharmacist prescribing following implementation of supplementary prescribing in the UK. Since approval of pharmacist prescribing in Alberta, several studies have focused on the unique model of prescribing introduced in Chapter One. These studies focused on: pharmacists' experiences applying for prescribing authority (Charrois et al., 2012), pharmacists' prescribing practices (Guirguis et al., 2017), prescribing in hospitals (Heck et al., 2015), factors affecting the adoption of prescribing (Makowsky et al., 2013), culture and personality traits of prescribers (Rosenthal et al., 2015), and the effect of pharmacist prescribing on patient cholesterol levels (Tsuyuki, Rosenthal, & Pearson, 2016).

By examining how pharmacists make sense of their professional role as prescribers, this study extends our knowledge of the prescribing role and the process of *reconstructing professional identity*, which emerged as the main grounded theory concept explaining the process of enacting and making sense of the prescribing role. *Reconstructing professional identity* represents how participants realized responsibility for prescribing through an iterative process of active engagement with prescribing activities as authorized prescribers within the context of their practice settings. This study contributes to our understanding of how participants accepted responsibility for prescribing decisions and when they did not. Other research suggests that pharmacists in Canada have been reluctant to accept responsibility for drug therapy (Frankel & Austin, 2013; Rosenthal et al., 2010) and are fearful of assuming responsibility for drug therapy outcomes (Gregory, Whyte, & Austin, 2016; Rosenthal et al., 2010). Research exploring

the experiences of pharmacists and nurses with independent prescribing authorization in the UK also reported reluctance to accept responsibility for prescribing (Maddox et al., 2016).

Enacting the role as authorized prescribers, creating documentation, and sharing information were essential to the RPI process. This study sheds new light on the idea that APA legitimizes an established role. As pharmacists came to understand the role and the world around them in a socially constructed manner, they expanded their expertise and responsibilities. This study underscores the process of professional identity reconstruction in relation to others through language and behaviours.

This study also contributes to the growing field of health information behaviour (Case & Given, 2016). Occupational roles are commonly the focus of research on social roles in the information behaviour field. However, there are few studies involving pharmacists' professional roles (Case & Given, 2016). This study draws attention to the essential role of information in the process of enacting and making sense of the prescribing role. Studying pharmacists' experiences with the prescribing role improves our understanding of collaboration and information behaviour in health care settings.

Discourse analysis (Potter & Wetherell, 1987) and constructive grounded theory (Charmaz, 2006) together facilitated exploration of pharmacists' experiences as prescribers in this study. Discourse analysis was chosen to examine texts developed by pharmacy organizations to communicate information about the prescribing role to pharmacists. Constructivist grounded theory was chosen to explore how pharmacists enacted and made sense of the prescribing role. Since both approaches focus on social interactions and social relations, they provided an in-depth exploration of pharmacist prescribing. The results of the first phase (discourse analysis) provided context for the second phase (grounded theory) of the study by drawing attention to possibilities

for how discourse shapes pharmacists' actions, relationships, and identities in their everyday practice (Talja & McKenzie, 2005). Based on the information behaviour field, these results shed light on how an individual's experiences are discursively constructed to accomplish action (Tuominen & Savolainen, 1997). This approach illuminated how pharmacists make sense of the prescribing role.

This study makes contributions to the professional identity literature. The process of *reconstructing professional identity* provides insight into how pharmacists' identities evolve when they adopt a new role. There is growing interest in studying pharmacists' identities as the profession continues to undergo dramatic change. Pottie and colleagues (2009) reported shifts in pharmacists' professional identity associated with a new role in the primary care practice setting. Research by Elvey and colleagues (2013) in the UK identified nine identities of pharmacists including scientist, medicines adviser, clinical practitioner, social carer, medicines maker, medicines supplier, manager, businessperson, and unremarkable character. The scientist identity was the strongest. Even though the research was conducted between 2008 and 2009 after prescribing was introduced in the UK, no prescriber identity emerged from the findings of that study. Austin (2007) explored identity reformation of foreign-trained pharmacists in Ontario, Canada. Ninkhate's (2015) doctoral research with newly graduated pharmacists in Thailand produced a model for identity construction associated with the transition from student to pharmacist. The new graduates constructed their identities in relation to others. Other researchers focused on identity formation of student pharmacists (Mylrea et al., 2017; Noble et al., 2014; Van Huyssteen & Bheekie, 2015). This study contributes an in-depth exploration of the process of reconstructing professional identity associated with a new prescribing role for pharmacists working in a variety of practice settings with established practices. This research addressed a gap

in the literature by providing insight into pharmacists' experiences with prescribing and the development of their professional identity.

Implications for Practice

The findings of this study illuminate the important influence of professional associations and regulatory organizations on pharmacists' understanding of their professional practices, particularly in relation to the emergence and understanding of new professional roles (Greenwood et al., 2002; Nerland & Karseth, 2015). There are implications related to how language in professional documents shapes pharmacists' actions, relationships, and identities in their everyday practice and in the context of the prescribing role. The APA *Guide* was considered the most influential text informing pharmacists about the prescribing role. In turn, pharmacists' experiences with the prescribing role influenced the Alberta College of Pharmacists' APA policy with respect to APA requirements for collaboration and education, and new proposals were presented to the members based on feedback from authorized pharmacists. The results of this study also shed new light on experiences with independent prescribing authority that are contrary to the dominant discourse associated with the supplementary prescribing model in the UK in that APA legitimized an established role of pharmacists (Dawoud et al., 2011; Tully et al., 2007; Weiss & Sutton, 2009). The results of this study revealed that pharmacists experienced the prescribing role in a new way following APA, perceiving a difference related to responsibility for prescribing decisions. Differences in the prescribing role associated with practice setting and co-location with other prescribers and health care professionals were also evident. The discourses of pharmacists' roles as prescribers highlighted the role of language in shaping understanding of professional roles. The language used within the pharmacy profession to express pharmacists' impressions of the prescribing role was brought to

the fore. Drawing on the study results, professional organizations may tailor communications to underscore the *reconstructing professional identity* process and recognize the iterative nature of professional identity changes in response to a new role. They may highlight prescribing in different practice settings and the role of information sharing. Engaging with pharmacists further as they continue to gain experiences as prescribers and adopt new roles will contribute valuable and relevant information to members of the profession.

This study draws attention to the essential role of information for prescribing activities and identity reconstruction. First, the results of this study highlight the process of integrating information about prescribing from a variety of sources, including prior experiences and role models. The APA application plays an important role in this process. It provides pharmacists with valuable information about the role by requiring them to reflect on their personal experience with prescribing activities. Second, role models (Chreim et al., 2007; Ibarra, 1999) and colleagues (Reay et al., 2017) provide important information to support the process of reconstructing professional identity. At the time this study was conducted, there was a paucity of information describing pharmacists' experiences with the prescribing role. There were few pharmacist prescribers. With the growth in numbers of pharmacist prescribers and the research contained herein, there is now more information available to inform potentially authorized pharmacists about the prescribing role. Networks of pharmacist prescribers and forums to share information about their experiences with the prescribing role would offer support to pharmacists contemplating APA or new to the prescribing role. Finally, information sharing was essential to both enacting the prescribing role in terms of providing patient care and reconstructing pharmacists' identities in relation to others. The results of this study point to the importance of

developing understanding of the role of information in evolving roles and identities when adopting a new role.

Documentation continues to challenge pharmacists in practice. The study results offer insights into the purpose of documentation and information sharing to support the prescribing role. Difficulties with documentation encountered by pharmacists may be mitigated by understanding different types of information sharing. Disseminating the results of this study to pharmacists through professional organizations and meetings will facilitate new understanding to those thinking of adopting the new role and will support the process of reconstructing professional identity. As their role evolves (for example, toward point-of-care testing and diagnosis), pharmacists will have established networks and mechanisms through which to share experiences.

The findings of this study reflect the practice of limiting prescribing to specific focus areas, a phenomenon observed by other researchers (Bowskill et al., 2012; McCann et al., 2012; Weiss & Sutton, 2009). Self-imposed limits on prescribing were associated with gaining experience, improving prescribing practice, and developing expertise (Bowskill et al., 2012). Identifying a focus area provided pharmacists in this study with a starting point from which their expertise and confidence could develop further. It was also associated with their sense of responsibility and agency over the role. Limiting prescribing was essential to the process of making sense of the role. This study extends our knowledge of pharmacists' experience of prescribing by elaborating on how study participants with APA selected focus areas in which to enact the prescribing role in their individual practice settings. For pharmacists in this study, focus areas were chosen based on practice settings, team membership, professional education, certification programs, and continuing professional development courses. Pharmacists in this

study associated focus areas with specialty practice. Selecting focus areas for prescribing was a highly individual process resulting in a wide range of prescribing areas visible to patients and others. These findings may assist other applicants who are considering APA.

The need for pharmacists and pharmacy organizations to bring clarity to and consistency regarding the prescribing role was recognized in previous research (Schindel & Given, 2013). While no formal recognition for specialization in pharmacy practice exists in Canada, research involving hospital and community pharmacists reported a high level of support for certification programs and recognition of specialties in pharmacy practice (Jorgenson et al., 2017; Penm et al., 2016). Consideration of specialties by pharmacy associations and governing organizations may further support adoption of the prescribing role.

Possibilities for pharmacy educators to support adoption of the prescribing role may be found across the professional education spectrum from the first professional degree to continuing professional development. Changes have recently been made to the first professional degree to extend the time in experiential rotations providing patient care. The introduction of a clinical doctorate replacing a bachelor-level science degree in pharmacy is underway in Canada. The Doctor of Pharmacy degree includes a minimum of 40 weeks in experiential learning, most of which involves direct patient care. Results from this study may guide development of effective approaches to prepare pharmacy students for their future role as prescribers. Educators may consider strategies that promote early engagement with the patient care role, exposure to multiple roles (including the prescribing role) and role models, experiences with interprofessional teamwork, and authentic professional activities associated with an appropriate level of responsibility.

To take into account the specific findings in this study, pharmacy educators may introduce authentic activities related to responsibility and trust in clinical settings. In previous research, educators have been challenged to address students' lack of exposure to the complexity of practice associated with professional responsibility (Fenwick, 2016). Various approaches develop professional identity in the classroom (Mylrea et al., 2017; Nobel et al., 2014) and promote direct contact with patients (Pratt et al., 2006; Trede et al., 2012). Strategies to promote learning about responsibility in the classroom may include critical analysis of dilemmas encountered in practice and development of strategies for addressing them. In clinical experiential education, the use of entrustable professional activities engages students in patient care activities for which they are responsible (Pittenger et al., 2016). Such activities could be developed to address specific professional identity-forming scenarios, giving student pharmacists authority and skills to enact the patient care role, develop relationships, and document decisions and patient information. The results of this study also have implications for educators developing certificate and professional development programs. Pharmacists contemplating the prescribing role seek programs to support initial identification of focus areas for prescribing and subsequent expansion to other areas (Jorgenson et al., 2017; Penm et al., 2016). They also seek programs that guide development of other skills required for the prescribing role, such as patient assessment, documentation, and teamwork (Charrois et al., 2012).

Directions for Further Research

Though this research explored how pharmacists make sense of their patient care roles as prescribers, it also raises questions for future research. This study offered insight as to how pharmacists enact and make sense of the prescribing role in a variety of practice settings including hospitals, community pharmacies, primary care, and specialty clinics. Differences

related to practice environment and proximity to other health care professionals were illuminated in the results. In the community pharmacy practice setting, further research is needed to explore role and identity changes for pharmacists, pharmacy technicians, and other professionals in the practice environment. Recent research exploring physician role changes in primary care (Reay et al., 2017) draws attention to how changes in collective professional identity can occur. With more pharmacists contributing to team-based care, future research should explore changes in their roles and identity in relation to others.

Further research is warranted in other areas in the community pharmacy setting. Pharmacists, as the first point of contact for the public, are becoming increasingly involved in primary health care, providing access to new services to address medication needs related to public health and chronic disease management. Pharmacists in the community pharmacy setting spend more time with the public and patients than other health care professionals. The relationships between patients and pharmacists with respect to provision of new services, information sharing, and evolving professional roles and identity are vitally important to our health care system.

This study focused on experiences of pharmacists integrating the prescribing role into established practices. Recent changes in the Alberta College of Pharmacists' prescribing policy permit new pharmacy graduates of the Doctor of Pharmacy degree program to apply for APA. This policy change presents opportunities for pharmacists to explore new aspects of their professional roles, including prescribing, and to construct new identities as they transition from education to practice.

Finally, the prescribing role is one of many roles in contemporary pharmacy practice. Further research is needed to explore new roles and opportunities associated with point-of-care testing and potential expansion to diagnosis.

Reflection on the Research Process

My expectations to follow closely the procedures outlined for both phases of my study, the discourse analysis (Potter & Wetherell, 1987) and constructivist grounded theory (Charmaz, 2006) phases, were met in the initial stages of the research process. I completed phase one of the study as planned. The discourse analysis approach was familiar, as I had completed another research project prior to starting this study (Schindel & Given, 2013). Once phase one was completed, I began collecting data for phase two of the study. The grounded theory approach provided an initial framework to begin analysis. I quickly established a rhythm for my work, interviewing participants, reviewing transcripts, and coding data. With each successive interview, data accumulated and the research process increased in complexity. I anticipated using NVivo exclusively for the analysis. It was the ideal tool to store and code data and worked well for those purposes. However, it did not inspire theoretical insights. As I immersed myself in the analysis, I found myself gravitating to hand-written notes and memos. Writing ideas and drawing diagrams to compare categories sparked new insights for me. Combining multiple approaches to analyze the data was both satisfying and efficient. My view of data analysis shifted: initially a technical task, it became a creative endeavour.

An aspect of the process that surprised me related to memos. I was committed to writing memos as an integral step in the grounded theory process. My surprise related to how meaningful they became to my own research process. Writing memos contributed to reflexive, analytical, and creative aspects of the research. I used memos to write questions, observations, and

theoretical reflections as they emerged. As the study progressed, I began incorporating personal memos to capture my thoughts and feelings regarding the research. As I began the research, I had considered myself as an insider due to my prior experiences and membership in the pharmacy profession. However, as the research progressed I explored what it meant to be an insider. This produced shifts in my perspective. This occurred as I wrote memos as part of my reflexive practice. I was mindful of how insider status impacted the research process including my choice of research topic, my access to research participants as a member of the Alberta College of Pharmacists, and my ability to build rapport and relate to research participants (Sherry, 2008). I considered the challenges associated with insider status such as remaining open to new insights (Dwyer & Buckle, 2009). As the study progressed, I considered myself as neither an insider nor an outsider (Breen, 2007). Memo-writing facilitated "thinking outside the box" and a robust approach to the data analysis. Documenting awareness of my own influence on the research, coupled with theoretical sensitivity for the subject, made me aware of the importance of checking interpretations that were being made and meticulously noting them in memos. The practice of writing memos allowed me to consider the data on a more conceptual level.

As I wrestled with my participants' experiences with prescribing responsibility, I wrote memos about responsibility to explore the profession's historical quest for prescribing authority. Through this process, I reconnected with literature that provided insights into my main theoretical concept of *reconstructing professional identity*. Writing memos allowed me to see the central place of responsibility in professional identity reconstruction for pharmacists in using their prescribing authority. For the study participants, prescribing authority gave them additional responsibilities that shifted their sense of their role in the health care community from peripheral

contributors providing drugs, information, and recommendations to central contributors as patient care providers.

The most satisfying aspect of the research experience was interacting with the research participants. Participating in the interviews sparked realizations and insights about the prescribing role for both myself and my participants. When the interviews began, I asked participants to talk about their roles in patient care and experiences with prescribing. The focus of their stories was initially on activities related to the prescribing role. Throughout the course of the interviews, the emphasis shifted to their sense of the role and their identities. I observed this to be a natural occurrence, not directly prompted by my questions. Participants noted that they did not often talk about their experiences. There were times when I observed them gaining a deeper understanding of their practices; this was a remarkable experience. For example, one participant gained insight into the complexities of prescribing:

> The more I realize you want to help this one patient… all of a sudden you realize it's not as easy as just starting them on [a medication]. There was all this stuff… oh my god, I didn't know… As you can see, I just I love talking about all of this. I mean, what we do. I've [got] a lot of opinions on it, as you can see. I don't know, some of them I might just be kind of hot headed or hot air, but I definitely have a passion. (Isabelle)

Through the interview process, I gained insights into the connection between language, interactions, roles, and professional identity.

As the research process unfolded, I was cognizant of my own parallel journey of "doing research" and "becoming a researcher". For me, the experience of "becoming" a researcher became most obvious as I began to write the first few drafts of my dissertation. Creating text facilitated deeper connections, both in terms of the overall analysis of the data and in my journey

to becoming a researcher. As I wrote, the act of doing research, the interviewing, reviewing transcriptions, analyzing, and writing memos, all took on new meaning. I could see that research was more than just reporting on facts. It was about constructing knowledge. I felt the importance of this change when I shared a summary of the study results with the participants. Their responses contributed to my research experience. One participant stated, "it was the first time that I felt that 'prescribing' research spoke to my experience with APA/prescribing." At that moment, I truly appreciated the experience of constructing knowledge.

Conclusion

Dramatic changes in the pharmacy profession have occurred in the past century. Many of these evolved as the primary focus of the pharmacist transitioned from drug products to providing patient care services. This research provides insight into pharmacists' experiences with the prescribing role and the evolution of their professional identity. This study comprised an in-depth exploration of pharmacists' experiences as authorized prescribers. An information behaviour lens illuminated ways that information influenced how they enacted the prescribing role and contributed to their evolving professional identity. The main theoretical category identified in this study, *reconstructing professional identity*, offers an explanation of how pharmacists realized responsibility for prescribing through an iterative process of active engagement with prescribing activities as authorized prescribers.

Dissemination of the results of this research will benefit pharmacists, pharmacy educators, and policymakers. Insights from the study results may be used to support other pharmacists and jurisdictions in adoption of the prescribing role. Pharmacists will benefit from reflecting on the process of reconstructing professional identity described in this study. The results of this study will be of interest to other scholars interested in new professional roles and

the role of information in making sense of the prescribing role. Pharmacy educators may apply the results of this study to develop programs to support students and practicing pharmacists in the evolution of their roles and professional identity.

Although this study has concluded, participants' stories may continue to inspire conversations about the "many meaningful changes that can be made if people want to. Maybe they want to, but they just don't know how" (Isabelle). My hope is that this study will contribute to those conversations, now and in future.

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Appendix A: Pharmacist Prescribing Documents

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Appendix B: Interview Topic Guide

Introduction

- Overview of project
- Outline procedures (length of time, audio recording set up)
- Review Information Sheet
- Invite questions or objections concerning participation
- Sign informed consent forms
- Activate recorder

Role as a pharmacist prescriber

1) Tell me about your decision to officially become a prescriber (apply for additional prescribing authorization). When? Why? Influences?
2) Describe a typical day in your practice.
3) Has APA affected how you perform your role? With your everyday interactions with colleagues? Patients? Other health care team members? Family members?
4) How do you describe your role to others?
5) Has your role in providing patient care changed over time? If so, explain.

Professional education and learning

1) Tell me about your experiences with pharmacy education.
2) Tell me about your educational / professional development activities since completing your degree in pharmacy.
3) What prepared you for your prescribing role?

Information

1) How did you seek information about how to develop your direct patient care role?
2) How did you seek information related to pharmacist prescribing?

3) What sources of information did you consult? Were they helpful?
4) Have any individuals or organizations impacted your decision to become a prescriber? How? Who are they?
5) What are the sources of information you consult in your everyday practice?
6) How do you define pharmacists' prescribing roles? (drug therapy experts, collaboration, moving forward)

Documents

1) Are there any artifacts (documents, articles or images) that impacted you or your role as a pharmacist prescriber? (This was communicated to the research participant prior to the interview.)

Closing

1) Is there anything else related to your experiences with a prescribing role that you would like to draw attention to?
2) Is there anything you would like to ask me?
3) Would you like to review the transcript of your interview?

Appendix C: Ethics Approval Documentation

Notification of Approval

Date:	April 1, 2013
Study ID:	Pro00038422
Principal Investigator:	Theresa Schindel
Study Supervisor:	Randolph Wimmer
Study Title:	Evolving Professional Identities: Exploring How Pharmacists Make Sense of and Enact their Prescribing Role
Approval Expiry Date:	March 31, 2014

Approved Consent Form:	Approval Date	Approved Document
	4/1/2013	INFORMATION AND CONSENT

Thank you for submitting the above study to the Research Ethics Board 1 . Your application has been reviewed and approved on behalf of the committee.

A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the Research Ethics Board does not encompass authorization to access the staff, students, facilities or resources of local institutions for the purposes of the research.

Sincerely,

Dr. William Dunn
Chair, Research Ethics Board 1

Note: This correspondence includes an electronic signature (validation and approval via an online system).

Appendix D: Email Invitation to Join the Study

I am a pharmacist/researcher at the Faculty of Pharmacy, University of Alberta and I am recruiting pharmacists who have APA for my doctoral research study on pharmacist prescribing. The Alberta College of Pharmacists provided names of pharmacists with APA who consented to have their contact information available for research. Your participation would entail meeting with me (approximately a 60-minute interview) in person, over the telephone, or SKYPE. I have attached some information about my work. If you would like to ask any questions about the study, we can set up a time to speak over the phone.

Thank you and I look forward to speaking with you,
Terri

Terri Schindel, PhD (Candidate)
Clinical Associate Professor
3-281 Edmonton Clinic Health Academy
11405 87 Avenue
Edmonton Alberta, Canada T6G 1C9
(780) 492-6134

Appendix E: Information Sheet and Informed Consent Form

Investigator:
Terri Schindel, PhD Candidate
Faculty of Pharmacy & Pharmaceutical Sciences, University of Alberta
780-492-6134
Terri.Schindel@ualberta.ca

Supervisor:
Dr. Randolph Wimmer, Associate Dean
Faculty of Education
University of Alberta
780-492-2937
Rwimmer@ualberta.ca

Study name. Evolving Professional Identity: Exploring How Pharmacists Make Sense of and Enact their Prescribing Role

Purpose. The purpose of this study is to understand how pharmacists have experienced their prescribing role following APA approval by the Alberta College of Pharmacists, including how pharmacists prepared for the role and how it was implemented prescribing in everyday practice.

Participation. You are being asked to participate in an interview with the researcher. You will be asked to talk about your experiences related to your prescribing role. Your participation will take approximately 1 to 2 hours.

Withdrawal. You are free to withdraw from the study at any time with no adverse consequences. The decision to participate in this study is voluntary and you may decide at any time during the interview to end your participation. The interview will be audio recorded and transcribed verbatim. You will be invited to review the transcript of the interview and clarify any of your responses following the interview (approximately one week). After this time, it will not be possible to withdraw from the study.

Anonymity. The researcher will maintain the confidentiality of all responses. The information collected will NOT contain any personal identifiers. The researcher will securely store any information collected for a minimum of five years. Only anonymized and/or group data will be released and no personally identifying information will be included in any reports.

Benefits and risks. The data collected during this project will help inform the researcher about pharmacists' experiences with prescribing. Participation in this research may produce benefits for you; the interview experience may facilitate new knowledge, provide insights into your professional practice, and change your perspectives. Also your participation will contribute to the development of new understanding of professional change, professional education and professional development, and offer direction to other pharmacists wishing to start prescribing. Data generated by this study will be presented in my PhD dissertation, academic publications and/or conferences, professional conferences, or be used for educational purposes. There are no known risks associated with participation in this project.

For information. To learn more about this project please contact Terri Schindel (terri.schindel@ualberta.ca or 780-492-6134) Faculty of Pharmacy & Pharmaceutical Sciences.

The plan for this study has been reviewed for its adherence to ethical guidelines by a Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.

Informed Consent

I acknowledge that the research procedures have been adequately described, and that any questions I have asked have been answered to my satisfaction. In addition, I know that I may contact the investigator designated on this form if I have further questions either now or in the future. I have been assured that personal records relating to this study will be kept anonymous. I understand that I am free to withdraw from the study and will not be asked to provide a reason.

Please initial the appropriate box(es) indicating your willingness to participate in the research, and then sign and date below.

I consent (Name) _____

☐ to participate in an interview for this research.

☐ to be audio recorded during the interview for transcription purposes.

Signature _____ Date _____

Appendix F: Confidentiality Agreement

I, _____, as transcriptionist for this study, I agree to:

1. Keep all the research information shared with me confidential by not discussing or sharing the research information in any form or format (e.g., disk, tapes, transcripts) with anyone other than the Researcher(s).

2. Keep all research information in any format (e.g., disks, tapes, transcripts) secure while it is in my possession.

3. Return all research information in any form or format (e.g., disks, tapes, transcripts) to the Researcher(s).

4. After consulting with the Researcher, erase or destroy all research information in any form or format regarding this research project that is not returnable to the Researcher (e.g., information stored on computer hard drive).

5. Other (specify)

_____ _____ _____

(Print Name) (Signature) (Date)

Researcher

_____ _____ _____

(Print Name) (Signature) (Date)

Appendix G: Grounded Theory Coding

Examples of initial and focused codes

Initial codes	Focused codes	Categories
• Feeling different about the role • Changing views of role and self • Challenging initial assumptions • Changing style of documentation	• Changing documentation processes • Perceiving a difference since authorization	Integrating information
• Developing my own way to document • Accepting greater responsibility	• Documenting responsibility for prescribing decisions • Documenting responsibility for prescribing suggestions	
• Seeking structure for prescribing • Wanting a specialty • Gaining insight into comfort zone	• Choosing a focus based on team • Focusing prescribing on diseases or conditions	Limiting and expanding prescribing
• Deciding not to prescribe • Adjusting approach based on relationships • Aligning prescribing to practice environment	• Restricting prescribing based on proximity to physicians • Creating boundaries based on technology	
• Focusing learning for specialty area • Growing confidence • Experimenting with prescribing models	• Building areas of focus from certificate programs • Expanding prescribing when other pharmacists obtain authorization	
• Finding synergy • Facilitating information exchange • Initiating pharmacy services	• Building relationships to support independent prescribing • Identifying complementary roles and knowledge	Balancing collaboration and independence
• Fitting prescribing in to practice • Avoiding duplication • Embracing autonomy	• Prescribing independently in niche areas • Navigating established team processes	