INTERPROFESSIONAL TEAM LEARNING AND LEADERS
IN AN ACADEMIC HEALTH CARE ORGANIZATION

by

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Abstract

The purpose of this study is to explore leadership and interprofessional team learning in well-established specialist teams in an academic health care organization. It also illuminates the data with more precise team leadership theories to help advance interprofessional health care practice. Employing an interactionist ethnographic approach, the study focuses on exploring team leaders’ role, their perceptions, meanings, and behaviours within the culture of two teams in the department of nephrology in an academic health care organization. Qualitative data derived from interviews, observations, and documents were gathered over a two-year period to obtain a comprehensive understanding of the workings of the teams. The research is also informed by the experiences of the researcher who had been a member of the department of nephrology under study. Data analysis involved an inductive thematic analysis of observations, reflections, and interview transcripts. The three broad themes of this dissertation reflect the characteristics and activities of leaders of team learning: first, situational team leadership, as a process, affects the social context of interprofessional team-learning relationships, interactions, and activities within the complex culture of an academic health care organization. Second, team learning embodies the collective praxis of its members. The members inform the role of leading learning through the social construction of meaning in dialogue and their reflective practices. Third, effective team leadership ensures the transfer of collective knowledge to students and trainees. Effective leaders also help team members deal with the challenge of learning how to
work within a well-established, specialized health care team as community of practice. Such a team has special capabilities that enable interprofessional team learning. Hence, a leader who learns how to use team learning to create new and collective knowledge will be able to create a learning experience for students, trainees, and team members who are focused on interprofessional practice and care. This study offers a contribution to the interprofessional education literature in two ways. First, the study’s use of theoretical perspectives provides new ways of thinking about leaders and learning in interprofessional communities of practice. Second, the study provides a rare empirical in-depth account of, interprofessional team leadership within well-established specialized teams in an academic health care organization.
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Dedication

This thesis is dedicated to

people living with chronic kidney disease.
Glossary

Accreditation: a self-regulatory process by which relevant statutory agencies grant formal recognition to academic health care institutions that meet stated criteria of academic health care quality. Health care institutions are measured against certain standards by site visits to the academic institutions, and findings by a review committee.

Ambulatory: out-patient hospital services and the provision of care to patients at home or in their local environment. The philosophy behind ambulatory care is that patients should not be admitted to hospital unless necessary and, as much as possible, care should be arranged in their own homes.

Ambulatory academic health care team: health professional members, students and trainees working together to provide ambulatory care as an out-patient team.

Ambulatory care: patients visit a clinic for follow-up care by an ambulatory health care team. The clinic is sometimes located in the hospital; however, care is primarily arranged in patients’ own homes.

Ambulatory home dialysis unit: a dialysis unit that offers clinics to patients who are receiving dialysis in their own homes.

Anemia: a medical condition in which the number of red blood cells (the blood count) is reduced.

Autonomy: the extent to which a job allows members freedom and discretion to schedule their work and decide the procedures used to complete it.

Calcium: mineral that is important for bone growth and body function.

Catheter: hollow tube used to transport fluids to or from the body.

Chronic kidney disease: kidney function that is less than normal. This condition might be mild and might only need to be monitored (stage 1 or stage 2). Kidney function might be slowly getting worse and will need to be monitored by a health care team to avoid complications (stage 3 or stage 4). Stage 5 is called End-stage renal disease. This is when dialysis or transplant is required.

Clinical educator: a student supervisor in a clinical work setting.
Clinical learning: the process whereby students apply knowledge and acquired skills in the clinical placement.

Clinical placement: periods spent at locations where students are provided with opportunities to engage with and care for clients and to establish meaningful therapeutic relationships.

Collaborating: an active ongoing partnership based on sharing, co-operation and coordination in order to solve problems and provide a service, often between people from very diverse backgrounds.

Community: in health care organizations, it refers to a group of individuals working together in some form of social connections in planning and providing care and services to a patient population.

Competencies: a combination of attitudes, knowledge, skills and behaviour that result in competent or effective performance, taking into consideration the nature of the tasks and the organization context.

Continuous Quality Improvement: approach to quality management by emphasizing the organization and systems; focuses on process rather than the individual.

Creatinine: waste product of muscle activity.

Critical Path: defines the optimal sequence and timing of intervention by team members for a particular diagnosis or process.

Diabetes: disease of the pancreas in which the production of insulin is decreased (type 1) or disease in which the body does not use the insulin that the pancreas makes (type 2).

Diagnosis: the process of determining health status and the factors responsible for producing it; it may be applied to an individual, family, group or community. The diagnosis should take into account etiology, pathology, and severity of the clinical state.

Dialysis: from Greek, meaning to separate or dissolve. Dialysis is a treatment for kidney disease, which removes wastes and water from the blood.

Dialysate: special fluid used in dialysis into which wastes are passed. It is also called dialysis fluid or bath.
Dialyzer: the part of an artificial kidney machine which acts like a filter to remove wastes from the blood.

Disease: a general term used to refer to any departure from health in which a patient suffers. It can be defined as disorder of bodily function or destructive processes in organs, organs' systems or in an organism with recognizable signs and symptoms, and in many cases a known cause.

End stage kidney failure: stage 5 in chronic disease, when treatment such as dialysis or transplantation becomes necessary. End-stage also refers to end of kidney function and is called end-stage renal failure or end-stage renal disease.

Formal interprofessional education: aims to promote collaboration and enhance the quality of care; it brings people from different professions to learn together to promote interprofessional collaboration and high quality care.

Health: in accordance with the Constitution of the World Health Organization (1948), health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".

Health Care: services provided to individuals or communities by a health care system or by professionals to promote, maintain, monitor, or restore health. Health care contains a broad spectrum of services and activities delivered by a team of health personnel.

Hemodialysis: treatment for kidney failure in which the blood is passed through a dialyzer to remove wastes and water.

Immune system: system which protects the body from foreign materials such as viruses and bacteria.

Insulin: hormone produced by the pancreas, which regulates the level of glucose (sugar) in the blood.

Interdisciplinary learning: involves integrating the perspectives of two or more disciplines, by organizing the education around a specific discipline, where each discipline examines the basis of their knowledge.

Internship: Normally a required period of supervised practice occurring post graduation, but occasionally used as a synonym for placement. In some cases this is a requirement for licensure.
Interprofessional: signifies that there is more than one health care profession represented on the teams under consideration, and those members of different professions work together and learn from each other.

Interprofessional learning: is learning arising from an interaction among members (or students) from various professions. This may happen spontaneously in the workplace or during structured programs.

Interprofessional Team Learning: a community of health care workers, students and trainees, and professionals centered around the concepts of communication, mutual respect, interaction and participation in learning as a social process through which knowledge is created to benefit the individual members and the team as an entity.

Kidney: one of two organs located at the back of the abdominal cavity on each side of the spinal column.

Kidney failure: progressive deterioration in kidney function, also called chronic kidney disease (stages 1 to 5).

Kidney transplant rejection: process in which the body recognizes that a transplanted kidney is not its own and mobilizes the immune system to fight against it.

Knowledge: the acquisition or awareness of facts, data, information, ideas or principles to which one has access through informal, experiential or formal program of study, research, observation, experience or intuition.

Leadership: refers to one of three forms-autocratic, democratic, or empowering, with a platitude of models and related communication styles to go along with each model.

Learner: also called student, trainee, and fellow is an individual learning in practice to gain professional competencies to be able to work as a licensed professional.

Life-Long Learning: continuous training over the course of a professional career. Because health science changes so rapidly, it is vital that its practitioners are committed to and engage in life-long learning.

Mentor: someone who provides an enabling relationship that facilitates another’s personal growth and development.
Multidisciplinary: involves bringing members from various disciplines with different perspectives together in order to provide a wider understanding of a particular problem.

Multiprofessional education: Members (or students) of two or more professions learn alongside one another rather than interactive learning.

Patient: also called "client", an individual who is consumer of health care services.

Peritoneal cavity: abdominal cavity, which contains the intestines and other internal organs.

Peritoneal dialysis: treatment for kidney failure in which dialysis fluid is introduced into the peritoneal cavity to remove wastes and water from the blood.

Phosphate binder: medication, which binds with some phosphate when food is in the stomach and intestine, causing phosphate to be passed in the stool instead of letting it into the blood.

Phosphorus: also called phosphate, is a mineral in many foods. In the body fluids, the kidneys regulate it. At normal levels, phosphorus keeps bones strong and healthy. At high levels, phosphorus causes itching, painful joints, and bone disease.

Placement: periods spent at locations where students are provided with opportunities to practice skills and to apply theoretical frameworks.

Population: refers to organized efforts focused on the health of defined patient groupings in order to promote and maintain or restore health, to reduce the amount of disease, premature death and disease-produced discomfort and disability.

Practice teacher: newer terminology for practice supervisor.

Practicum: clinical placement, placement.

Praxis: the application of individual theoretical knowledge to cases experienced based on the needs of the patients.

Preceptor: a staff member designated as a resource person and role model, who helps with the socialization process in the placement/workplace.
Professional practitioner: health care workers who provide preventive and curative interventions to the patient or client.

Professional education: clinical placement, placement, fieldwork, field placement.

Professional practice or experience: clinical placement, placement, fieldwork, field placement.

Professional supervision: process aimed at enhancing the effectiveness of the person supervised. It may include acquisition of practical skills, mastery of theoretical or technical knowledge, personal professional development.

Protein: substance obtained from food that builds, repairs, and maintains body tissue. High sources of protein are mainly from animal foods.

Red blood cells: cells in the blood, which carry oxygen to the body tissues.

Renal disease: also called chronic kidney disease: kidney function that is less than normal.

Renal replacement therapy: a treatment, such as dialysis or transplantation, which attempts to replace the normal functioning of the kidney.

Target weight: the body weight achieved when extra fluid is removed during dialysis. Target weight is sometimes called dry weight.

Team Building: act of bringing together diverse professional and non-professional members who are related to a process; may occur in four stages: (1) forming, becoming comfortable with each other; (2) storming, determine actions to take; (3) norming, beginning work stage, no more competition or conflict, time spent on tasks; (4) performing, group becomes cohesive, there is unity in diversity (Tuckman, 1965).

Team Learning: learning as a social process through which knowledge is shared, created and sought to benefit both the individual and the team as an entity.

Teamwork: is considered a value that promotes communication among individuals in a group with a common goal of working together.

Team Membership:
Core team members: well-established members who were centrally engaged and involved in the day-to-day activities of the team. For example in team A, core
members were the nurse manager, nurses, and support staff. In team B these were the nurse coordinators, clinic secretary, and clerical staff member.

Transitory team members: learners that were only peripherally involved such as students, visiting scholars, residents, interns, fellows, researcher and clinical researchers.

Non-traditional team members: transitory and other peripherally involved members such as professional interpreters, a lab technician, the Kidney Foundation representative, volunteers, data entry specialist for the electronic patient record from the Systems Information Management Service department, and representatives as sponsors from drug and medical equipment companies.

Established team members: foundational, primary care members, including core members working on behalf of and in service to the team. Both teams were initially formed by health care professionals around particular areas of interest, and were later joined by other team members who were chosen as knowledge experts in specific areas to complement each other. These teams have been practising and learning together through the various dynamic stages of forming, storming, norming, and performing.

Patients: the clients or service users of the teams. Although patients are referred to as “members” of the interprofessional team and contributors to the team’s education, they were excluded from team learning observations.

Sodium: mineral in the body, which increases thirst and is regulated by the kidneys. Sodium affects the level of water retained in the body tissues.

Student supervisor: a professional staff member responsible for aspects of practical learning on placement, now usually referred to as a clinical educator.

Uni-professional education: is members (or students) of a single profession learning together.

Ultra-filtration: process in which blood entering a dialyzer is placed under pressure to remove excess water.

Urea: waste product from breakdown of protein.
Chapter One: Introduction

Chapter One provides the background for the development of the present research and setting for this thesis. Section 1.1, outlines the problem statement. Section 1.2, offers some insights into the evolution of this research project. Section 1.3, describes the academic setting where the study took place. The final two sections, 1.4 and 1.5, review the aims of this research and give an overview of the organization and structure of this thesis.

1.1 Problem Statement

We know that teams can learn; in sports, in the performing arts, in science, and even occasionally in business, there are striking examples where the intelligence of the team exceeds the intelligence of the individuals in the team, and where teams develop extraordinary capacities for coordinated actions. (Senge, 1990, p. 10)

As a dietitian, I know that lifelong learning is important to most health professions. Individually, health care providers are embedded in self-regulated professional cultures in which self-directed lifelong learning is an explicit expectation. Individuals learn from their work with patients, from other health care professionals and in consultation with colleagues. In an academic health care organization, learning often occurs in the context of teams. The nature of the team, particularly the increasing emphasis being put on providing quality patient care through team practice, will inevitably influence the nature and quality of the learning that occurs.

Because of the influence that leaders have on teams it is anticipated that they have an important role in determining the nature of the team learning. Leadership has become a central concern of all health care organizations in Canada. Leadership in clinical care is particularly
complex in an academic health care setting, where the emphasis on team practice involves clinical team leaders being responsible for the creation of an interprofessional learning environment. Traditionally, leadership in clinical academic teams has involved the supervision of non-professional personnel to promote quality patient care. As the concept of leadership evolved in the academic health care organization, many health care professionals took on leadership roles to foster safe, collaborative team practice. Team leaders are often involved in direct clinical care in collaboration with the team. They are expected to help members from various professions integrate their theoretical knowledge, skills, and attitudes into team practice, and to further develop the shared vision and values they need in order to function as collaborative members of a health care team. However, while there are a number of studies (Bolden, 2004; Carroll & Edmondson, 2002; Day, Gronn, & Salas, 2004; Xyrichis & Ream, 2008) demonstrating the value of leadership qualities and attributes in leading teams, there is relatively little understanding of how clinical team leaders influence team learning. This research aims to understand the specific role of clinical leaders within the situated learning environment of specialized, well-established teams in an academic health care organization. The study is driven by the needs to: first, clarify the role of team leaders in enhancing team learning practices; second, examine the factors that shape the interprofessional team learning agenda on a day-to-day basis; and third, make recommendations for the design of health professional learning in practice and, more broadly, the development of an academic health care institute as a learning organization.

1.2 Evolution of a Research Project

My interest and passion for education, teaching, and learning started when I was an undergraduate student in nutritional sciences at a university in upstate New York. In the second year of my program, I taught nutritional science at a local high school and at an air force base,
experiences that I greatly enjoyed. Included in the course of teaching experience, I conducted an education research study involving an evaluation of the nutrition education intervention at the air force base setting. This was my first exposure to educational research. Following the completion of my nutrition sciences degree, I enrolled in a graduate program in multidisciplinary education, but my dietetic internship, relocation, and other events in my life delayed the completion of my master’s degree.

Work opportunities led me to a registered dietitian’s position in a large academic health care organization where, for twelve years, I continued to explore various academic, clinical, and practical opportunities to pursue my passion for education and research in Toronto, Canada.

In 2004, I was fortunate enough to be named the inaugural education research fellow representing the allied health professions at the Wilson Centre Education Research Fellowship Program, University of Toronto. The Wilson Centre is an academic unit engaged in theoretical and applied research dedicated to advancing the understanding and practice of education in the health professions. Operating both locally and internationally, scientists, graduate students, research fellows, research assistants, and administrative staff make up a dynamic research learning and mentoring centre. Broadly, the mandate of the Wilson Centre is to engage in collaborative programs of research that foster the discovery and application of new knowledge relevant to advancing health care education and practice. The overall goal of my fellowship was to initiate the process of preparing an allied health professional for a career as a specialist in educational theory, with the mandate of developing research programs on the successful integration of educational theory into clinical practice. Being a fellow at the Wilson Centre has helped me to forge a relationship with the Ontario Institute for Studies in Education (OISE), University of Toronto, and to create and develop synergies between diverse theoretical
perspectives and between theory and practice. I am dedicated to pursuing a career in the health care educational research. In the first two years of my fellowship, I was able to learn and refine my health profession educational research skills while completing my master’s degree in adult education at OISE. This was the initial phase of my exploration of different research genres.

During this process of academic growth I realized that I was attracted to the issues related to the integration of educational and organizational learning theories into clinical practice. For my master’s research, I explored the question: What gives rise to team learning among members of a well-established, specialized interprofessional team within the context of an academic health care organization? The idea for my Masters research came from my attempt to understand the way students and members learn together and teach others on a day-to-day basis in order to be able to provide quality, collaborative patient care. I knew that the team I studied functioned differently from other teams within the same organization, and that it ensured that patients receive the best care possible.

Overall, my master’s experience provided me with a new perspective on qualitative research in the field of workplace and team learning, and on advancing health care education and practice through research. My coursework assignments became opportunities to explore this interest from a wide variety of perspectives. Two courses, one on Leadership and Organization and another titled Developing and Leading High Performing Teams: Theory and Practice marked a turning point in the development of my passion for, and appreciation of, the field of adult education as it relates to my role as a health care practitioner.

I have since come to realize that the connections among several of my passions drove me to become an educator, researcher, and health care interprofessional leader. I am passionate about nutrition and the fundamental difference that dietitians make for human beings on a daily
basis. I am passionate about the health care system and the importance of educational research in ensuring the development of a community that focuses on learning to care. As I become more immersed in an academic and educational research role, I resonate with Nielsen’s understanding of the word “research” as expressed in her book, *Knowing Her Place: Research Literacies and Feminist Occasions* (1998):

Re-search, search, search again. Inquire, enquire. Ask. Watch. Learn. Research is the attuned mind/body working purposefully to explore, to listen, to support, to transgress, to gather with care, to create, to disrupt, and to offer back, to contribute, sometimes all at once (p. 264).

My doctoral thesis is focused on exploring the role of clinical leaders in an academic health care organization. More specifically, as the provision of health care shift from delivery by individual professionals to delivery by interprofessional teams, it seems natural that we should be making a concurrent shift of focus from individual self-directed learning models to models of interprofessional team learning. My decision to explore team learning leadership for my doctorate arose out of findings from my master’s research. During this research, I serendipitously uncovered data that spoke to the important role leaders play as participants in team learning activities. Today, my doctoral thesis provides a useful way to broaden understanding of team leadership, as a process, and how it affects the social context of interprofessional team-learning relationships, interactions, and activities within the complex culture of an academic health care organization.
1.3 Setting the Stage:  
*The Context of an Academic Health Care Organization*

This PhD study uses the title “academic health care organization”; however, there are many terms by which these organizations are known: “academic medical centres”; “academic health centres”; “academic health sciences centres”, and “teaching hospitals” (Abdelhak, 1996; Blumenthal, & Edwards, 2000; Muller, 2001; Alpert, Flanagan, & Botsford, 2001). Regardless of the nomenclature, these organizations are functioning hospitals in which students and recent graduates in health professions complete their training. These organizations are often, but not always, associated with a university, and thus are sometimes referred to as “university hospitals”. Davies (2008) argues that the academic health care organization model delivers the excellent advanced clinical care, education, and research to which policy-makers aspire. The cultural setting of a large, urban academic health care organization in downtown Toronto was chosen to help understand the leading of team learning in well-established, specialized teams involving both professionals and students in day-to-day practice. According to Davies (2008), an academic health care organization’s role is to bring together world-class research, teaching, and patient care. As a result, a team usually includes the patients, students, fellows, trainees, researchers, health care professionals, and support staff. Academic health care organization teams are similar to hockey teams, in that team members are learning to play together and take pride in their performance. The CEO for this study’s organization recently commented:

> Canadians are proud of our health care system—like we are proud of our brand of hockey. Health care is a team endeavour, and team success requires that all members have pride in their performance. We believe that our teams provide our patients with care that is as good as they would get anywhere in the world.  
*(Personal communication, 2010)*
The academic organization in the study focuses on mentoring future health care professionals through individual and team clinical experiences. The students constitute a diverse interprofessional population from local affiliated colleges and universities. According to the 2008–2009 annual education report:

[This academic health care organization] is one of the largest teaching hospitals in the country, and we are proud to be the teaching site of choice for eighty-five percent of medical trainees. Our trainee satisfaction has also continued to grow, with, for example, student satisfaction reaching eighty-five percent for nursing placements. (Reznick, 2009, p. 7)

The organization trains approximately 3,000 students annually, in most health care disciplines, including: medicine, nursing, physiotherapy, occupational therapy, speech language pathology, pharmacy, psychology, social work, chaplaincy, nutrition, medical engineering, and technology. The University of Toronto accounts for about 49% of the student placement. The organization has a large variety of resources supporting the educational enterprise, including a vice-president of education, and educational leaders from the various professions who meet as an advisory council on education. The vice-president of education’s office and the heads of the various professional groups communicate with the relevant schools on a regular basis to plan and monitor student placement. The advisory council meets six times yearly to review the progress and programs for the various health care professions. There are also resources such as a virtual library that is available on 4,000 computers, 150 seminar and lecture theatres, which are equipped with appropriate audio-visual technology, and three audio-visual departments, one at each of the academic organization sites.

In addition to the value placed on education, emphasis on advancing educational research is inherent in the goals of the academic health care organization generally, and of the individual corporate leaders, team and unit managers, program directors, and staff members. Affiliated with
this organization is the Wilson Centre for Research in Education. Globally, this academic health care organization boasts of its focus on facilitating interprofessional training for all staff. It is affiliated with the Centre for Interprofessional Education. As stated in its 2008–2009 annual education report:

In 2008, we saw a dramatic increase in the number of staff who completed training offered by the [Centre] of Interprofessional Education (IPE). This training has been instrumental in helping further establish collaborative models of interprofessional care throughout the organization. Interprofessional care is an important means by which to address shortages of health care professionals across Canada, and this health care organization speaks of being proud to play a role in enhancing patient care through IPE. (Reznick, 2009, p. 1)

According to staff communications, the organization promotes approaches for creating and maintaining interprofessional care, and team-practice systems. Teams are empowered to do this by the administration of the organization, to monitor and improve the quality of their services to achieve the best possible outcomes. The CEO, in an e-mail to the staff, expressed his thoughts about the vision of the academic health care organization:

The vision of this academic health care organization, “Achieving global impact”, is in keeping with our athletes’ gold medal accomplishments at The 2010 Vancouver Winter Olympics—and our purpose of “transforming health care for our patients, community and the world” reminds us that achieving global impact requires all members of our team to be as caring, creative and accountable as they can possibly be. (Personal communication, February 2010)

I have worked in this academic health care context as a dietitian, clinician educator, team leader, and clinical researcher in the departments of oncology, nephrology, and transplant over 18 years. I have also been the inaugural Allied Health Education Fellow and a Wilson Centre fellow in the past 6 of the 18 years.
1.3.1 An Overview of the Division of Nephrology

The division of nephrology is responsible for the care and management of patients with both chronic and end-stage kidney disease. It is also responsible for research and the mentoring of future health care professionals. According to the division of nephrology staff guide book, “it is one of the largest nephrology programs in the world, encompassing treatment of chronic kidney disease with dialysis and transplantation, general nephrology, subspecialty clinics, teaching and research” (Watson & Kelman, 2008, p. 2).

At a corporate level, the division hopes to identify and understand the variables that influence the costs of the nephrology program. As well, the division aims to implement an information system to help track longitudinal patient data and to assist with continuous quality improvement measures. The strategic plan for the division of nephrology describes as its primary aim the improvement of patient satisfaction throughout the program by providing consistent and seamless communication to patients across all areas of the program. The division also aims to improve communication across nephrology and with other departments, to facilitate initiation and maintenance of renal replacement therapies in order to improve wait times for surgical and interventional procedures within the organization.

It is my understanding from working with the division of nephrology that each team shares the vision of the organization by striving to:

1. Create a thriving and supportive environment for patients that promotes wellness, emphasizes community and home linkages, and maximizes the self-care and management potential of patients;

2. Be leaders in furthering the elucidation of the pathogenesis, prevention, and treatment of renal disease and in the optimization of dialysis therapy;
3. Play a leading role in the education of professionals and students in caring for patients with renal disease.

My role as researcher is to understand the nature of a clinical leader’s interactions in interprofessional patient-care teams within this milieu; in order to do so I needed to observe team members’ interactions and interview team leaders. So I chose two well-established, specialized teams within the division of nephrology as the focus of this study.

1.4 Aims and Objectives of This Research

This thesis represents an attempt to understand how leaders perceive their role in shaping the interprofessional team learning agenda and to understand the nature of knowledge, members’ actions and interactions as a form of everyday work, and team learning in the context of an academic health care organization. A review of the literature on leadership, interprofessional education, and organizational learning suggests, to me, that team learning practice is best understood at the level of the team through a study of the day-to-day conversations and dynamic interactions among members in their social context.

For this study, my overarching aim was to: explore the meanings, roles, relations, behaviours and processes of leading team learning within the context of well-established, specialized, interprofessional teams within an academic environment.

Based on this aim, my research objectives were to:

1. To examine the relationships, perceptions, and experiences of team members identified as leaders of team learning;
2. To explore the value of knowledge that is gained from day-to-day conversations in shaping the interprofessional team learning agenda on a day-to-day basis;

3. To observe the phenomenon of leading team learning in well-established, outpatient teams within the organizational context of an academic health care institution with students and trainees;

4. To further our understanding of the constructs of interprofessional team learning.

The fulfilment of the aim and objectives provides explicit opportunities for enhancing clinical team leadership focused on shaping practice-based learning, practice-based mentoring, research, and patient-centered care at the level of the team. Key findings also elaborate and extend team-learning theory to an interprofessional environment. This study makes a number of implications for the design of health professional learning in practice and, more broadly, the development of an academic health care institute as a learning organization.

1.5 Overview of This Thesis

Chapter One defines the problem and provides the context for this study. Chapter Two describes the connections between leadership and team learning from a comprehensive review of the relevant literature. It also explores the use of learning organization concepts in a health care organization, and concepts of health professional learning for individuals in health care teams. It identifies gaps in the literature that my study is intended to address.

Chapter Three describes the research methodology used to conduct the study. I discuss the research design, data collection methods, data analysis, and ethical issues. Chapter Four provides an overview of the settings in which the role of the team-learning leader is explored.
Chapters Five, Six, and Seven contain the findings from this study, based on the various team learning activities observed in two teams and interviews with twelve leaders. Chapter Eight discusses the study’s key findings and considers them in relation to situational leadership and situated learning theories. This chapter also describes how the thesis makes an original contribution to the interprofessional education literature. The last chapter provides a summary of the research. In this chapter I offer my reflections on the questions raised in the introduction and in the main findings of this study. Recommendations are made and there is discussion of implications for practice, limitations of the study, and areas for future research.
Chapter Two:
Literature Review

2.0 Introduction

In this chapter I review selected literature from several fields. No single body of literature addresses all facets of this study. Therefore, to address the research objectives, the literature search strategies involved identifying literature on leadership, team learning, and interprofessional practice through reviews of the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and the Education Resources Information Centre (ERIC). As well, I used a Google scholar advanced search of the Internet, searched health and social care journals, including Medline, and searched articles and discussion papers from graduate course work. I used search strategies that had been formulated as far back as twenty-five years ago in an attempt to provide insight into critical issues of leadership and team learning in health care.

The review begins with definitions of, theories of, and accounts of the practice of leadership and learning. These set the stage for the next section, which reviews literature on leadership in health care organizations with an emphasis on clinical team learning. This discussion is then positioned in the context of workplace learning issues. The overall aim of this literature review is to offer insight into the concepts related to leading team learning in an academic health care organization.

2.1 Leadership Theory

Historically, leadership studies have been conducted in the context of business and management theories and less in the learning and education context. However, because of lack of
consensus, much of what is known results in many disparate definitions of leadership (Yukl, 1989, 2002). Although much debate exists about how to define “leadership”, the concept is largely used as a theoretical framework to identify the qualities and attributes of key individuals who influence others to contribute effectively to meeting organizational goals and converting organizational visions into actions. Marshall (1995) distinguishes leadership as a matter of ability apart from the formal structure of the organization. He suggests that leadership within an organization must be seen, “not as a job based on power and authority, but the ability to engage others in coming to consensus around critical decisions and problem solving” (p. 3).

An existing controversy involves the relationship between leadership and management. Mintzberg (1973) argues that the manager’s role includes leadership; in addition, the manager needs to be a figurehead, a liaiser, a monitor, a disseminator, and a spokesperson, the prominence of each role varying in different managerial jobs. Despite the fact that the manager’s role involves leadership, Bennis and Nanus (1985) further propose, “managers are people that do things right and leaders are people that do the right thing” (p. 21). The idea of managers doing things right refers to their abilities to follow rules, regulations and policies in getting the job done. The idea of leaders doing the right thing refers to their abilities to recognize more than the organization’s rules, regulations and policies by creating a social milieu to do the right thing. Management controls, arranges, does things right; leadership unleashes energy, sets the vision so we do the right thing” (Bennis & Nanus, 1985, p. 21).

Kotter (1990) sees management as “coping with complexity” and leadership as “coping with change” (p. 104) within the organization. Michael Fullan (1991) suggests that leadership relates to concepts of mission, direction, and inspiration, while management involves designing and implementing plans, working effectively with others, and getting the job done. The key
difference appears to be that leaders influence the commitment of others while managers have particular positions of responsibility and have authority; however, there is no clear distinction, implying that an overlap may exist. It is possible that some individuals possess both sets of skills, and can switch from one to another as the situation requires.

The primary focus of leadership literature is on corporate and organizational leaders who encourage, instill corporate values, and communicate a shared vision among all individual members in the organization (Senge, 1990; Senge, Kleiner, Roberts, Ross, Roth, & Smith, 2000; Watkins & Marsick, 1993; Schön, 1987). A key aspect of leadership, like management, is that it fulfills the function of achieving results for the organization. In reviewing the literature to help understand the nature of leaders and leadership, five main approaches of leadership theory (Dulewicz & Higgs, 2000; Handy, 1982; Partington, 2003) are introduced:

1. The trait approach;
2. The behavioural or style approach;
3. The contingency or situational approach;
4. The visionary or charismatic approach; and
5. The emotional intelligence approach.

*The trait approach:* One of the earlier concepts in leadership research has a psychological focus. Avery (2004) refers to this as “Classical leadership” involving the trait approach, which was popular up to the 1940s. This view suggests that leadership is an innate ability of certain individuals. This implies that some people are “born leaders”, they are born with the specific physical and mental traits required for leadership (McCall & Lombardo, 1983), individual traits such as intelligence, birth order, and socioeconomic status (Bass, 1960; Bird, 1940; Stogdill,
However, while this trait approach has been called into question, some researchers continued to use this approach in areas of managerial motivation (McClelland, 1985) and assessing managerial competence (Boyatzis, 1982).

**The behavioural or style approach:** Within the history of theories of leadership, studies of leadership that focus primarily on understanding behaviour involve an emphasis on leaders’ styles. The behavioral or style approach was popular from the 1940s to the 1960s. For example, in 1960, McGregor argued that his theory X and theory Y models provided a contrast between autocratic and participative leadership styles which were likely to result in descriptions of leaders’ behaviours. A few years later, Blake and Mouton (1964) produced a grid of different leadership styles, referred to as the “managerial grid”, based on the tasks to be performed and the people involved in them. Blake and Mouton proposed that effective leadership requires the adoption of a leadership style that takes into consideration both the task and the people involved. In addition to studying leader’s styles, other researchers focused on studying the relationships between the leader’s behaviour and the group’s process and performance (Katz, Maccoby, & Morse, 1950; Katz & Kahn, 1952; Likert, 1961). The results of these studies evolved into three approaches to leadership behaviours: task-oriented behaviour, relationship-oriented behaviour, and participatory leadership behaviour (Likert, 1967), which is a combination of the first two.

**The contingency or situational approach:** Later researchers began to question the behavioural or style approach, suggesting that it does not address the situation and the relationship between leader and follower. By situation, Hoy & Miskel, (1987), suggest "distinctive characteristics of the setting to which the leader's success could be attributed” (p. 273). Hencley (1973) reviewed leadership theories and noted that "the situation approach maintains that leadership is determined not so much by the characters of the individuals as by the
requirements of social situation" (p. 38). The situational approach was also referred to as the “contingency approach,” which was popular in the 1960s and 1970s. Rather than seeking general theories of leadership that would apply in every situation, contingency theories suggest that what makes an effective leader would depend on the situation and his or her ability to adapt the style to the situational demands.

As a result, researchers began to explore the situational factors that have an effect on the relationship between leader and follower and leader and group performance. This resulted in what Hersey and Blanchard (1977), following Fielder (1967), describe as a situational or contingency model of leadership, one that is task-specific and relies on an assessment of both employees’ skills and motivation.

Hersey and Blanchard, explains that:

Situational Leadership theory suggests the most successful leaders are those that adapt their leadership style to the maturity (the capacity to set high but attainable goals, willingness and ability to take responsibility for the task, and relevant education and/or experience of an individual or a group for the task) they are attempting to lead. (p.1)

Situational leadership theory classifies the behaviour of leaders into two distinct categories, initiating structure (task behaviour) and consideration (relationship behaviour).

Task behaviour is the extent to which leaders engage in one-way communication by explaining what each follower is to do as well as when, where, and how tasks are to be accomplished. Relationship behaviour is the extent to which a leader engages in two way communications by providing socio-emotional support, “psychological strokes” and facilitating behaviour. (Hersey & Blanchard, 1977, p. 1)

Situational leadership is neither task nor relationship behaviour but an interplay of these two:
Situational leadership theory is based upon an interplay among the amount of direction (task behaviour) a leader gives; the amount of socio-emotional support (relationship behaviour) a leader provides; and the maturity level the followers exhibit on a specific task, function or objective that the leader is attempting to accomplish through the individual or group. (Hersey & Blanchard, 1977, p. 1)

Another similar model was action-centered leadership, developed around the same time as Situational Leadership in the 1960s and 1970s, and described by John Adair (1973). Adair's work encompasses and endorses much of the thinking on human needs and motivation by Maslow (1943), and Herzberg (1966), and his theory adds an organizational dimension to these earlier works. Most importantly, Adair is probably the first to demonstrate that leadership is a teachable, transferable skill, rather than an exclusively inborn ability. Other researchers continued to explore the concepts of leadership.

The visionary or charismatic approach: During the 1980s and 1990s, the visionary or charismatic leadership approach arose from the study of successful business leaders leading their organizations through change. Bernard Bass (1985) describes two contrasting perspectives leaders may take: transformational and transactional.

The transformational leader is described as one who is a visionary who engages in human and ethical issues. The transformational leader focuses on developing trust and understanding. According to Burns, transformational leaders are dynamic leaders, “in the sense that the leaders throw themselves into a relationship with followers who will feel ‘elevated’ by it and often become more active themselves” (as cited in Crainer, 2003, p. 39). Transformational leaders motivate others to excel rather than simply exerting direct control over their actions. Researchers have criticized Bass’s (1985) theory of transformational leadership, arguing instead that there is no one best way of thinking about leadership; rather, different kinds of leadership styles reflect social and historical roots, depending on the context (Avery, 2004; Bryman, 1992; Yukl, 1999).
The transactional leader is described as one who emphasizes contingent rewards for followers meeting performance targets. Rewards include recognition, salary, performance ratings, and awards. Judge and Piccolo (2004) describe transactional leadership in terms of contingent reward. Contingent reward is the degree to which the leader sets up constructive transactions or exchanges with followers. The leader clarifies expectations and establishes the rewards for meeting the expectations. The transactional leader manages by exception, taking action when tasks are not going as planned. Transactional leadership qualities, according to Burns, are those that contribute to an ability to “obtain results for the organization” (as cited in Crainer, 2003, p. 40). This model is, therefore, sometimes referred to as the “management theory of leadership.”

In this visionary or charismatic leadership approach, effective leaders are excellent communicators and organizers and have an ability to cooperate with employees to ensure that organizational goals are met. Avery (2004) suggests that both transactional and transformational forms of leadership are valid, but transformational leadership may be more useful in situations where there are insufficient resources or situations that are complex and ambiguous, where success depends strongly on follower knowledge and commitment. Avery argues that there are other situations in which transactional leadership is the appropriate form of leadership, such as when followers are unwilling or unable to commit to the leader’s vision. In the 1980s, another leadership theorist, Warren Bennis, built his work on Burns’ concept of transformational leaders and suggested that successful leaders recognize a moral responsibility to address the fundamental needs, wants, aspirations, and values of their followers (Bennis & Nanus, 1985, p. 21).

The emotional intelligence approach: The emotional intelligence approach has been popular since the late 1990s, and claims that the leader’s emotional intelligence has a greater
impact on his or her success as a leader—and the performance of his or her team—than does the leader’s intellectual capability (Goleman, Boyatzis, & McKee, 2002). Emotional intelligence emphasizes the leaders’ self-awareness, emotional resilience, motivation, sensitivity, influence, intuitiveness, and conscientiousness (Dulewicz, & Higgs, 2000). Senge (1990) states, “The art of leadership involves sizing up the players and needs in each situation and crafting strategies suitable to the time and setting” (p. 344). With leaders’ increasing emotional intelligence, Goleman and colleagues, (2002) point out that the leaders will foster resonance in the team, which will usually lead to better performance in appropriate circumstances.

Finally, the leadership literature, therefore, provides an interesting perspective for understanding general categories of leadership performance. Leadership theories from the behavioural approach involve concern for people and concern for the task (Adair, 1983; Blake & Mouton, 1978; Hershey & Blanchard, 1988; Slevin, 1989; Tannenbaum & Schmidt, 1958). Within the contingency or situational approach, Fiedler (1967) identified task, people and power areas of leadership; within the charismatic approach, Bass (1990) identified the Transactional, primarily task-focused, and Transformational, primarily people-focused approach to leading. From current emotional intelligence approaches to leadership, Goleman, et al., (2002) identified leaders’ awareness of themselves in relating to others. As a working definition, Stogdill and Coons (1957), suggested, "Leadership is the behaviour of an individual when he is directing the activities of a group toward a shared goal" (p. 6-7). Overall, there is no clear cut agreement on the definitions of leadership; however, based on this review of literature, there appear to be three general categories of leadership: autocratic, democratic, and empowering. Within these categories there are a multitude of models, each with multiple styles and communication formats. In the next section, I explore existing theories of leadership as they apply to healthcare.
2.2 Leadership in Health Care

In the 1990s, health care reform consumed the public’s attention as provinces engaged in formal reviews, looking for ways to improve and sustain their systems. Following these reviews, managerial reform was recommended as a way to use available resources more effectively, providing a focus for improving the quality of patient care (Rankin & Campbell, 2006, p. 25). In recognition of this need to improve the quality of care, the health care field incorporated concepts from leadership, management, and business, and evolved structures to improve the management of everything from patient flow to clinical treatment decisions. This emphasis on management, according to Rankin and Campbell, was creating something of a revolution in the practices of health care institutions as non-profit organizations. As a result, managers within health care organizations were formally responsible for managing the organization’s use of resources. This included taking on the challenges of administering and maintaining health care standards according to the corporate design, and managing the organizational structure and system. Thus, in many instances, managers, now responsible for restructuring and cost containment within the health care organization, were taking on a new role.

Additionally, managers were expected to improve hospital performance, “not only through their job descriptions and upper management’s expectations, but also through the ‘version of reality’ that the information provides” (Rankin & Campbell, 2006, p. 62). For example, the patient services manager’s knowledge about how well patients do at home following shoulder surgery was now based on actual data. The authority for management actions
was derived specifically from the managers’ positions and their “version of reality” was based on statistics collected within the organization.

The result was that health care professionals became managers. For example, “hospitals made head nurses responsible for their staffing budgets and this had an effect of [transforming] head nurses into managers with an organizational interest in getting more work out of their staff” (Rankin & Campbell, 2006, p. 32). Although some nursing professionals excelled at maintaining the status quo, others took a more critical perspective, and began to generate and propose innovative ideas, to provide leadership in delivering safe, high quality patient care.

In health care today, management and leadership are viewed as separate, though sometimes interrelated, activities. Leadership is viewed as more fundamental and creative than management, which focuses on using resources effectively and efficiently. The authority of the leader, from the traditional leadership perspective, is derived from the leader’s ability to influence others to accomplish goals, whereas the authority of the manager is derived from his or her position in the organization. Managers occupy formal positions in the organization and are accountable for the effective use of available resources. To be in a leadership role, however, one does not have to occupy a formal managerial position (Grohar-Murray & DiCroce, 2003, p. 18).

To help health care leaders deliver quality patient care, the concept of “unit leader” was developed. Unit leaders’ responsibilities included the challenge of developing new and efficient methods of improving working conditions. Because of the need for individuals with both leadership and work experience, nurses were the first to be trained as unit leaders. However, the creation of the position of unit leader blurred the line between the business and professional emphases. The consequences of blurring this line sometimes shifted the balance between how much leadership and how much direct patient care emphasis should be placed on the role of unit
leaders. According to Grohar-Murray and DiCroce (2003), “in order to formulate a framework in which the nursing role is used appropriately, leadership skills were needed” (p. 3). Therefore, the nursing profession took on the challenge of teaching nursing students to take leadership in the “management of patient care, redesigning systems of nursing care delivery, incorporating new technologies into practice and dealing with the inherent conflicts between the nursing professions’ values and demands of the health care system” (p. 4). Nurses prepared to take on unit leader positions by training to develop an “analytical ability to identify problems and the skills to manage and lead people through difficult and changing times; this made the need for nursing leadership even more important to provide creative solutions to facilitate quality nursing and health care” (p. 13). The nurse unit leader began to be seen as someone able to use creative problem-solving and interpersonal techniques, such as collaboration and negotiation. However, it is not clear whether leadership training for the nurse leader included training in education held by professionals other than nurses, to promote interprofessional practice.

Traditionally, clinical team leadership emerged through the need for health care professionals to supervise and manage non-professional personnel to ensure safe patient care. Today, with the increasingly strong focus on providing interprofessional team-based patient care, research, and education, there is a movement toward the creation of a culture that stresses the ongoing development of collaborative skills such as problem-solving, innovation, and continuous learning among the various health professional team members. The interprofessional practice literature has acknowledged improving collaboration (Day et al., 2004) and collaborative practices. Collaborative practice, as suggested by Way, Jones, & Busing, (2000), is the means by which health care teams work together to provide integrated health care services that meet the needs of the patient population they serve. Despite these current elements of increasing
collaboration, and thereby flattening hierarchies, according to Lingard, Espin, Evans, & Hawryluck, (2004), they can reflect a sense of the team as a unified entity rather than as a collection of individuals with distinct professional identities with different models of caring and working. Further, the literature on health care leadership offers very little evidence of the effect of leadership on research and education as collaborative practice (Vance & Larson, 2002).

Despite the current emphasis on developing collaborative team practices, there are a number of systemic traditions that team leaders need to consider if they are to facilitate collaboration among health professionals, and create a culture of team learning and practice. For example, research has shown that obstacles to coordination or sharing of responsibilities are based on ambiguity and conflict over roles; conflict and confusion over leadership; differing understandings of clinical responsibility and accountability; interprofessional misperceptions; and differing rewards between the professions (Herrman, Trauer, & Warnock, 2002; Weaver, 2001; Maclean, 2003). Training and self-regulated associations emphasize the autonomy of each professional, and legitimize the pursuit of practice in isolation from other health care professions. As a result, many existing teams are dealing with the challenges of power dynamics and hierarchy in attempting to work with other professionals (Graham, 1995; Areskog, 1988; Parsell & Bligh, 1999; McVicar, Deacon, Curran, & Cornish, 2005). Additionally, the reality of the hierarchy among health care professionals is not adequately addressed in the team leadership literature. And there is little or no training provided to the professionals who lead clinical teams. There is a need for us to further understand whether and how professionals who act as clinical team leaders deal with systemic power relations among members of their teams.

Another aspect of the traditional medical system worthy of consideration is the emphasis given to evidence-based medicine. Evidence-based practice is based on a quantitative,
biomedical perspective. Using the best biomedical evidence to determine the best treatment for patients, their uniqueness, their individual needs and preferences, and their emotional status are easily neglected in decision-making. This can lead to the different disciplines working within their isolated domains to develop standards of care, priorities, problem-solving approaches, and values specific to their profession (Hall, 2005; West, Borrill, Dawson, Brodbeck, Shapiro, & Haward, 2003). The consequence of health care professionals focusing exclusively on evidence-based medicine tends to sometimes neglect the patient’s perspectives about their health status and creates an application of knowledge as consultants independent of other team members. Patient-centered care, although not a new concept, has recently attracted renewed attention from clinical health care teams. It has specifically been a focus of clinical team leaders in their pursuit of providing a team-based learning approach to care. However, the issue of how to balance evidence-based medicine with patient-centered care has not been adequately addressed in the team leadership literature.

Adding to the complexity of developing effective clinical team leadership in health care, an academic health care organization also fulfills the function of apprenticing trainees from the various health professions. Most health professions require an internship period whereby trainees are given opportunities to learn in a clinical setting. Ponzer, Hylin, Kusoffsky, Lauffs, Lonka, & Mattiasson, (2004) suggest that the clinical ward provides a suitable venue in which students can learn professional roles, learn about other professions, and learn the importance of good communication between professionals. Nunely (1987) describes this learning in clinical settings as socializing and inculcating professional values, attitudes, concepts, and theories as well as developing professional knowledge and technical skills that provide the foundation for entry level qualifications.
In a systematic review of teaching in a clinical practice, Secomb (2007) identifies the positive outcomes associated with peer teaching and learning in practice. These outcomes include cognitive development, clinical skills acquisition, satisfaction with learning, increased learning opportunities, and leadership development. In another study on evaluation in self-directed clinical education, Dornan et al., (2004) describes the context of a clinical practice as a multidimensional construct, and suggests that the quality of the experience in practice is related to the quality of the supervision. Some hospitals have, in fact, taken the responsibility of providing formal preceptor training programs for team members and leaders who engage in clinical education. Preceptor training involves skill-building techniques, critical thinking facilitation, assignment management, and adult education principles. Kirke, Layton, & Sim, (2007) have shown that new graduates enjoy their placements and actual learning in practice when they are considered part of the team with clinical educators engaged in similar activities. Clinical team leaders, interacting with professionals who advocate for student training in practice, have identified other areas of concern and barriers that affect the quality of placements (Hall, 2005). These are: curricula, timing of placements, facilitators’ availability, and preceptors/clinical educators’ ability to provide guidance as part of their patient care workload. It is not clear how clinical team leaders are dealing with the challenge of having students and trainees as well as preceptors, who may or may not have had training for that role, on their teams. There is a need to understand how clinical team leaders influence the mentoring role, how they enable learning, and how they facilitate students from various professions working together within the academic health care environment.

To deal with concerns about providing effective mentoring in practice, researchers such as Bandali, Parker, Mummery, & Preece, (2008) suggest using simulations to allow safe
development of skills in a team environment, prior to exposure to “real” people. Bligh and Bleakley (2006) suggest that before simulation is used it must be determined that what is learned is transferable to workplaces and teams. Simulations to enhance interprofessional education are emerging. However, in general, the importance of practical experience as a means of integrating theory into practice, helping students develop knowledge, skills, and values, and helping them function as integrated members of the care team, may require the use of existing, well-established, learning teams. To this end, the literature on the development of simulated teaching and use of real learning teams are not adequately addressed for understanding the performance of leading effective mentoring.

If we are to seriously consider leading of real teaching and learning teams, support, such as ample budget, is needed for clinical team leaders who must deal with the traditional organizational policies of a teaching hospital and the policies of the professional regulatory bodies, while shaping daily interprofessional team practice (Ham, 2003). With an ample budget, leaders will be able to hire professionals to care for patients based on their area of expertise; for example nurses will no longer deal with social work issues if a social worker is hired as a team member. As well, many of these leaders and team members are also academic lecturers, cross-appointed to local universities and colleges. These people may experience problems because academic institutions and teaching hospitals are perceived to have different organizational cultures and expectations that can sometimes conflict. Expectations may include the academic institutions empowering students to make certain decision related to clinical care, where as the teaching hospital will have differing expectations and policies about students not being able to make these decisions on their own. Clinical-academic educators, who focus on supporting students in team practice or in an academic setting, are central to the teaching and mentoring of
students while delivering quality clinical care. Today, clinical team leaders are expected to help members from various professions integrate theoretical knowledge, skills, and attitudes into practice and to further develop a shared vision. They are also expected to promote the organizational values that members will need in order to function as collaborative health care teams. Studies such as Ham’s (2003) recognize that in order for an organization to use clinicians as leaders effectively, it needs to provide them with the necessary time, resources, and information. Further, there is a relatively limited understanding of how clinical team leaders utilize these resources, time and information to enable functioning as collaborative health care teams. There is a need to understand clinical team leaders’ experiences, and to explore their understanding of their teams’ day-to-day communications and activities in practice. This need to have increased understanding of the clinical team leaders’ role will help to enhance the academic health care centre team’s performance as an interprofessional patient-centered practice environment. This type of practice is considered integral to our health care work. It takes effort to lead and create effective interprofessional teams (Barrett, Curran, Glynn, Godwin, 2007). Within an academic health care organization, outpatient, specialized teams can serve as models for understanding interprofessional practice and learning.

2.2.1 Health care team development and leadership

This section examines the literature on research in the field of health care teams and team leadership. When talking about health care team practice it is important to understand how the concept of team evolved. Senge, Roberts, Ross, Smith, & Kleiner, (1994) defines the word “team” as any group of people “who need each other to accomplish a result” (p. 354). For Katzenbach and Smith (1993), “a team is a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold
themselves mutually accountable” (p. 45). They argue that teams should be the “basic unit of performance for most organizations, regardless of size” (p. 15). When there is the need for innovative, coordinated action, teams develop . . . “an operational trust, where each team member remains conscious of other team members and can be counted on to act in ways that complement each other’s actions” (Senge, 1990, p. 236).

As health care evolves, the uses of teams are seen as even more critical in allowing teamwork, collaboration, and decision-making among multiple professionals to provide quality patient care (Xyrichis, & Ream, 2008; Weaver, 2001; Simpson, 2007; Shaw, Walker, & Hogue, 2008). The use of teams saturates the health-care environment; however, confusion about the structure, role, development and role of leaders remains an important aspect of understanding leading interprofessional team learning. Given this perspective, Drinka (1996) describes the development of an interprofessional health care team as a group of health professionals from different professions who engage in planned, interdependent collaboration. There are many types of teams in health care and while professional groups are thought of as silo groups (Finch, 2000), in reality they are very heterogeneous (Graham, 1995). It has long been recognized that meeting the patient needs offers opportunities to professionals to come together, outside the purview of traditional doctor-patient relationship (Atwal & Caldwell, 2006; Bleakley, 2006; Farrell, Schmitt, & Heinemann, 2001). More recently, Grumbach, & Bodenheimer, (2004), question whether health care teams can improve practice in the context of primary care, while others, such as Hayward, Forbes, Lau, & Wilson, (2000), suggests ways to strengthen health care teams.

One approach to understanding team development is to look at Tuckman’s (1965) account of the literature on group development in his studies of therapy groups, human relations
training groups, laboratory-task groups, and natural groups. He states that groups evolve through four stages, which he labels:

Stage 1- Forming: describes ambiguity and confusion as members struggle to come together as a group;

Stage 2-Storming: describes tension generated among members as they begin to work together;

Stage 3- Norming: describes members finding some consensus on how to work together;

Stage 4- Performing: describes members understanding each other and working together in a well coordinated way. Tuckman added a fifth stage the “Adjourning”: the ending or termination phase of the group adjourning to describe the breakup of a team after its project is completed (Tuckman and Jensen, 1977).

At the core of the model is the assumption that groups pass through the first three stages before they can effectively perform together. However, Kass (1996, p. 51) cautions that:

While [Tuckman’s] suggested sequence and perceptions of trends appeared to hold under varied conditions of composition, size, duration and focus, and while it would seem to stand the test of common sense, generalizations must ... be limited to the fact that what has been put forth is mainly delineated from research dealing with group therapy settings.

However, this model has since been tested with many kinds of groups across organizational sectors (Maples, 1988; Smith, 2001; Woodcock, 1989, McFadzean, 2002),

By way of comparison, Wenger, McDermott, and Snyder (2002) describe the development of a community of practice over time through a five-stage model of development. The authors suggest that, “each stage of community development, like each stage of human
development, confronts the community with a central challenge ... a tension between two opposing tendencies that the community must address before it can move to the next stage” (p. 69).

They state that communities of practice evolve through these stages:

Stage 1- Potential: describes the possibilities of how the community will evolve and where it might lead;

Stage 2- Coalescing: describes balancing the need to protect the community while members are developing trust in each other;

Stage 3- Maturing: describes resolving the tension between welcoming additional new members and focusing interest on expert interactions;

Stage 4- Stewardship: describes the need to sustain the community while resolving a tension between the established focus of the group and the need to accommodate new ideas and members;

Stage 5- Transformation: describes a dramatic event, such as an influx of new members or a fall in the level of energy, transformation can take the form of, for example, reversion to an earlier growth stage or even termination of the community.

In spite of the different context of concern, both Tuckman’s team development and the communities of practice development have similarities in the way they evolve through stages over time before they can effectively perform together. Wenger and Lave (1998), and Wenger (1996) have characterized these stages of development within the context of “communities of practice”, while Katzenbach and Smith (1993) refer to them in the context of “teams in creating the high-performance organization”. Looking at the social dimension of team formation,
Katzenbach and Smith (1993) recognize that, “Real teams do not develop until people in them work hard to overcome barriers (such as lack of trust and confidence in each other’s capabilities) that stand in the way of collective performance” (p. 18). Katzenbach and Smith discuss the values of teamwork:

Teamwork represents a set of values that encourages behaviours such as listening and constructively responding to points of view expressed by others, giving others the benefit of the doubt, providing support to those who need it and recognizing the interests and achievement of others. (p. 21)

Though teamwork promotes individual and organizational performance, such values, “by themselves are not exclusive to teams, nor are they enough to ensure team performance” (p. 21). Katzenbach and Smith (1993) add that a team’s performance and success depends on a combination of skills and experiences that “exceeds those of any individual in the team”, as well as a joint development of clear goals, the creation of unique social dimensions, and having the “kind of fun [that] is integral to performance” (p. 18). “Good personal chemistry or the desire to ‘become a team’ for example, can foster teamwork values, but teamwork is not the same thing as team” (1993, p.12).

While the values of teamwork can support the performance of a team, the development of team practice needs to be addressed in terms of team leadership. Team practice refers to time spent at locations where members engage together, with a common goal, to increase the efficiency of the task in hand.

The concept of team practice emphasizes that team leadership depends heavily on the social and cultural dynamics that guide the team’s actions towards the fulfillment of a shared vision within an organization (Zaccaro & Klimoski, 2002; West, et al., 2003). Day et al., (2004) reiterates the point that team leadership is seen as more than the traditional perspective of
specific individuals having input into the team. Team leadership can be seen as a process that influences core processes by adding skills and competencies to those that already exist and associated with effective outcomes and team performance (Keller, 2006).

Meredith Belbin (1993) researched the factors separating successful from unsuccessful teams. Belbin found that the composition of the team is important and that individual differences in style and composition affect the strength of a team. This includes the role of the leader. If the leader assumes a traditional role, he or she projects an image of being able to assume all team roles and responsibilities. A traditional leader takes responsibility for team objectives by making clear what is expected of the team members, directing them to take cues, moulding them into conformity, and standing ready to assume any of the team roles. However, this traditional leadership approach is not always appropriate. Belbin suggests that while team leadership may not seem as natural as traditional leadership, it can be learned through understanding the nature of leadership and the team leadership skills that are required to function in this role. Team leadership involves building on diversity and valuing what each member brings to the team. The team leader seeks the talent of others and is not threatened by team members with special abilities. The team leader values developing colleagues and encourages others to grow and maximize their potential. Finally, the team leader facilitates the team in developing a mutual vision and creating a team mission. Overall, Belbin suggests, no one person has all the answers to leadership, and team leaders should encourage the development of many different roles among team members. Belbin further suggests that a holistic or participatory style of leadership, involving teamwork, collaboration, and decision-making, permits more effective team performance.
Little literature provides only partial insight into leading health care team performance. For example, McCallin, (2003) suggests that a well-functioning team in which clinicians work as member-leaders, shows the potential to foster improvements in the performance of patient outcomes. Nursing research in which the leadership is focused on characteristics of the nurse's leading role, Kosinska & Niebrój, (2003), agrees that no teamwork performance can be effective without a leader. Similarly, in other health care research focused on the leadership style and its impact on the team performance, Dierckx de Casterle, Willemsen, Verschueren, & Milisen, (2008) suggests that effective leadership promoted effective communication, greater responsibility, empowerment and job clarity in nursing teams. These authors suggest that participatory style of clinical leadership seemed also to influence patient-centered communication, continuity of care and collaboration.

In contrast to the limited number of studies that examine the performance of health care teams, there is a more substantial amount of empirical literature describing the barriers associated with developing as a health care team in practice. The collective view of the literature (Zwarenstein & Reeves, 2002; Cooper, Braye, & Geyer, 2004; Alexander, Davis, & Kohler, 1997; MacDougall & Elahi 1974, Barr, 2005a; Bronstein, 2003; Larson 1999) is that because professionals are trained as separate disciplines such as medicine, nursing, nutrition, or social work, are not prepared with the skills, knowledge or attitudes, to work effectively together to deliver patient care. Therefore, when more than one team members view issues or situations from different perspectives, these relationships can sometimes be compromised by conflict (Baltimore, 2006), and barriers. According to Graham (1995), health care team members’ evaluation and recognition are not focused on overall team performance; rather, emphasis is placed on individual performance. This have added to the barriers associated with developing as
a health care team, and “have created a cadre of tunnel-visioned front-line supervisors, middle managers, and in some cases senior executives concerned only about activities and subordinates under their immediate control” (p. 283).

Generally, most studies of team leadership portray the team leader as someone who is responsible for determining and implementing the functions needed to allow the team to maximize its performance (Zaccaro, Rittman, & Marks, 2001; Lim, & Ployhart, 2004). In this view, the team leader is one who is in a position to influence the progress of the team. According to Marshall (1995), the following are some core functions to be fulfilled by team leaders:

- Help to maintain the integrity of the team’s operating process;
- Facilitate the internal coordination of activities among team members;
- Coach, in a supportive role, by providing guidance and acting as a sounding board;
- Be a change agent in holding the team accountable for actions, making unpopular observations, energizing a group into action, and enabling breakthroughs where possible;
- Heal, in the role as mediator and catalyst, by bringing people together, ensuring integrity in work relationships, and making necessary interventions;
- Share responsibility for the success of the team, actively participating in its activities; nurture and support the team’s development, participate in the work and live up to the team’s governance processes; and
- Manage, in the traditional role, by carrying out daily administrative responsibilities, processes, and systems essential to managing the boundaries with the larger organization or with key stakeholders. (p. 77).
Other literature supports this, according to Henderson, (2003), and Marshall & Robson, (2005), not carrying out core functions can cause conflict to escalate. Within these core functions of the team leader are elements of top-down hierarchy, the traditional way many organizations, including some health care organizations, have viewed team leadership (Aiken, 2001; Alexander, et. al.1997; Fisher, 2000; Vance, & Larson, 2002; Levey, Hill, & Greene, 2002). For example, if leaders emphasize top-down too strongly—in order to make team members accountable—then a hierarchy might be created that can cause members to feel fear, leading to the inhibition of their performance as a team (Marshall, 1995; Huber, 2000). The creation of a hierarchy leads to fear among team members when leaders hold too high an expectation of team members’ ability and their willingness to take on responsibility. The core functions include elements of top-down hierarchy that are more inclusive of team members and conform less to leaders’ expectations.

The role of the team leader is to help the team develop and engage in team practices to ensure that the team operates effectively within the organization. This could involve specific task-related functions involving organizing and defining roles and setting goals as well as relationship-related functions, such as ensuring effective communication among members, providing support, managing conflict, and building productive work relationships (Laiken, 1998). Over time, team leaders help develop in their team a body of common knowledge and effective team practices and approaches that allow them to function collaboratively.

Other researchers have explored the ability of leaders to develop leadership capacity in others through interacting with members, with the goals of focusing on shared work, and shared learning (Fallesen, 2004; Day, et al., 2004). To develop leadership capacity in others means that leaders need to recognize the importance of creating a balance of hierarchy and democracy in a
team. Laiken (1998) also suggests that in developing leadership capacity, team leaders need to facilitate, nurture and develop effective work in a team (p. 1).

Looking at developing leaders, Hackman (2002) warns would-be team leaders about controlling both team ends (tasks) and means (process). He suggests that this often results in a waste of human resources, because the creativity and innovation that organizations desire from teams is best served when ends (tasks) are specified but means are left to the team members as a collective. Members hold knowledge and skills beyond those needed to work on specified tasks of the team. He further proposes that effective teams are those that have “a team product acceptable to clients; growth in team capability; and a group experience meaningful and satisfying for members” (p. 30). As a team begins to form, members come with their own agendas, goals, and expectations that will motivate their behaviour. The leader needs to adapt, as a facilitator, to help align individual goals with a collective team goal, which will eventually be associated with shared work and team outcomes.

In this process of building a capacity for leadership and developing leaders, these authors seem to emphasize common features such as common purpose or task and agreement on accountability in building a team. Hackman suggests that teams should have four enabling features: “team task, clear boundaries, clearly specified authority to manage their own work processes, and membership stability over some reasonable period of time” (Hackman, 2002, p. 41). Katzenbach and Smith (2001) describe two leadership styles, single leader and team leader. The single leader dominates and makes decisions, while other team members simply carry them out. On the other hand, the team leader facilitates collective decision-making involving all team members. Like Hersey & Blanchard, Katzenbach and Smith argue that one style is not better
than the other, rather leaders need to adopt a style based on the situation, the decision to be made, and the context, as I will discuss further in Chapter Eight.

While much has been written about leadership and the qualities of the leaders little attention has been paid to the influence of a leader on group or team processes and outcomes (Conger, 1999; Yukl, 1999). Laiken, in The Anatomy of high performing teams: a leader’s handbook (1998) included a team based study involving leaders and team processes. Yukl (2002) points out that the leadership literature has focused too narrowly on dyadic processes, such as leader – follower relationships and calls for greater attention to team-based studies. Both of these issues represent gaps in the existing team leadership research, which this research addresses. The next section reviews the literature specifically about learning in health care which is explored in this thesis. Toward this end, I review the literatures to first understand the general concepts of learning and those specific to adult learning. Using the learning literature, I explore the factors that influence the educational, organizational and interprofessional environments, discussed next.

2.3 Learning

This section explores the literature pertaining to learning, in particular constructivist learning theory, the role of situated learning and the acquisition of knowledge in order to understand team learning as communities of practice. While learning theories fall into various frameworks that bring about changes (Merriam, Caffarella, & Baumgartner, 2007; Robbins, 1998; Belkin & Gray, 1977; Rogers, 2003; Smith, 1982; Kolb, 1984; Jarvis, 1987), for this study, the recognition of the constructivist learning theory is an important feature of this body of literature. To this end I will examine the theories of Wenger (1996), Vygotsky (1978), and Lave
and Wenger (1991) and from the perspective of team learning in educational, organizational and interprofessional contexts.

Learning is a process that brings together cognitive, emotional, and environmental influences and experiences for acquiring, enhancing, or making changes in one’s knowledge, skills, values, and world views (Illeris, 2003 and Ormond, 1995, as cited in Merriam et al., 2007, p. 277).

For most of us, the various learning theories have two chief values. One is in providing us with a vocabulary and a conceptual framework for interpreting the examples of learning that we observe. These are valuable for anyone who is alert to the world. The other, closely related, is in suggesting where to look for solutions to practical problems. The theories do not give us solutions, but they do direct our attention to those variables that are crucial in finding solutions. (Hill, 2002, p. 190, as cited in Merriam et al., 2007, p. 277)

Constructivism rests on the “assumption that knowledge is constructed by learners as they attempt to make sense of their experiences” (Driscoll, 1993, p. 360). It is important to note that there is no single constructivist theory; rather in the field of education, many researchers approach learning from a foundation of constructivism, as characterized by the quote given at the beginning of the paragraph (Driscoll, 1993, p. 360).

“Constructivism has multiple roots in the psychology and philosophy” (Perkins, 1991, p. 20) and it assumes and acknowledges that, “learning is a process of constructing meaning: it is how people make sense of their experience” (Merriam, et al., 2007, p. 291). Constructivsts sees humans as having the ability to construct knowledge through a process of discovery and problem solving. The extent to which this process can happen without structure and teaching is the defining features amongst those who promote this learning theory.
Constructivist learning theory’s role in the development of sociocultural learning is the creation of a context for informal learning experiences in a social environment. (Wenger, 1996, pp. 20-26). Vygotsky, who was a pioneer in the sociocultural approach to understanding learning, emphasizes the situatedness of learning. He argues that it is our need to interact and communicate in the sociocultural context that makes human cognitive development unique (Vygotsky, 1978, pp. 28-30). Vygotsky’s model of learning through social development includes the learner, the task, and mediating tools such as the larger physical and social context of the learner’s interactions.

Proponents of situated learning theory stress that knowledge and learning is situated in experience through social interactions. Jean Lave (1988), a social anthropologist, social learning theorist, and proponent of situated learning theory, suggests that learning is a function of the activity, context, and culture in which it occurs (i.e., it is a function of situation). Situated learning theory shifts attention from individual minds to connections among minds, and from the properties of individual persons to the interactions between people, and between people and their environment (Lave & Wenger, 1991, Taylor, 1999, Weick & Ashford, 2000). It follows, therefore, that learning can be understood as more than the accumulation of individual knowledge; it can be understood as a product of the social interactions of team members, and thus individual learning is inseparable from collective learning. Thus, knowing is not only a property of individuals, but also of the social network in which the knowledge is negotiated and justified (Giddens, 1984; Glynn, Lant, & Milliken, 1994; Hutchins, 1993; Lave & Wenger, 1991; Taylor, 1999; Wenger, 2000). Knowledge and expertise come from participation in a community of practice. Vygotsky's theory is similar to the work of Bandura on social learning. Bandura (1977) claims that:
Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behaviour is learned observationally through modelling: from observing others one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action. (p. 22)

Norman (1993b) also suggests that what really matters is the situation and the parts that people play in it. He argues that looking at the situation, or the environment, or the person in isolation will obscure the very phenomenon of interest, that is, the acquisition of or the creation of knowledge. Lave and Etienne Wenger (1991) pioneered the notion of the community of practice. The community of practice construct, as well as various forms of social constructivism, represents learning as essentially a social process. According to Wenger, in communities of practice, often referred to as natural interest groups, participants, “don’t necessarily work together every day, but they meet because they find value in their interactions” (2002, p. 4). A community of practice is, “a naturally occurring and evolving collection of people who together engage in particular kinds of activity, and who come to develop and share ways of doing things—ways of talking, beliefs, values, and practices—as a result of their joint involvement in that activity” (Galagan, 1993, p. 33). They have a small number of members; members can be experts in different aspects of the field; members can have a range of skill levels; and members often know and trust each other. As members become participants in a community of practice learning happens.

Lave and Wenger describe this view of situated learning in the following words (1991):

Learning viewed as situated activity has as its central defining characteristic a process that we call legitimate peripheral participation. By this we mean to draw attention to the point that learners inevitably participate in communities of practitioners and that the mastery of knowledge and practice requires newcomers to move toward full participation in the sociocultural practices of a community. “Legitimate peripheral participation” provides a way to speak about activities, identities, artifacts, and communities of knowledge and practice. It concerns the
process by which newcomers become part of a community of practice. A person’s intentions to learn are engaged and the meaning of the learning is configured through the process of becoming a full participant in a sociocultural practice. The social process includes, indeed it subsumes, the learning of knowledgeable skills” (p.29).

Further, Lave (1992) posits that situated learning is usually authentic (i.e., not formalized) and unintentional rather than deliberate. Unlike a classroom situation, people in a community of practice have a shared interest in or need to engage in an activity. The community also develops over time, and the members have a shared history (Wenger, as cited by Stewart, 1996). This shared history is vital for the formation of a genuine common culture.

Taking a holistic approach to situated learning, Davis, Sumara, and Luce-Kepler, (2000) suggests that up to eighty percent of learning occurs subconsciously through our engagement in social life. On this view, learning is an aspect of engagement in social life that involves the whole person and not just the mind. Motivation to learn is an aspect of the motivation to become a member of the social group (Galagan, 1993). Much like in some community of practice situations, learners are only peripherally involved while in others they are centrally engaged and involved (Drath & Palus, 1994). Through our engagement in social life, learning most often occur in the context where it will be used (situated), allowed to occur (legitimate), and new members learn from watching and practicing from the edges of the group (peripheral participation) Lave and Wenger, (1991) calls this the “situated legitimate peripheral participation of learning.”

From the above discussion, it follows that, at a team level, learning is sociocultural. In order to achieve team learning cognitive, emotional, and environmental influences and experiences of team members need to be brought together to create an informal learning experience in a social environment. In exploring the literature on understanding learning
activities at the team level, I discovered that academic research in this area is limited in contrast to research done by management consultants. From my interpretation of the literature, in the social context of the well-established teams focused on providing professional care in this research, team learning begins with individual professionals as knowledge experts. In the next section, I explore concepts of team learning from first, the educational perspective, second, the organizational perspective and third, the interprofessional learning perspectives.

2.3.1 Team Learning in the Education Field

In this section, I explore the literature pertaining to team learning in the education field based on Yrjo Engestrom’s (1987, 2001) expanded model of Vygotsky’s (1978) situated learning model. Within the constructivist framework, Vygotsky makes the connection that, “every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people, and then, inside the child” (1978, p. 57). This idea can be applied to the social development of a team: every function in the team’s development occurs both on the social level—among its members—and then on the individual level, within the individuals. For example, learned values that are developed between people become part of the individual character of each of the people involved. In the educational literature on team learning, the constructivist approach, introduced earlier, places emphasis on the social aspect of learning through case-based and team-based construction of meaning. The literature uses the concept of small group learning, which describes the practice of placing students in small groups in a classroom in order to promote more active and effective learning. Authors have written about various species of small group learning: learning groups (Bouton & Garth, 1983), collaborative learning (Bruffee, 1999; Hamilton, 1997), cooperative learning (Johnson, Johnson, & Smith, 1991; Millis & Cottell, 1998; Slavin, 1986; Leonard 2002), and team learning
(Michaelsen & Black, 1994). Leonard (2002) suggests that cooperative learning is similar to collaborative learning, in which learners work together to explore a range of issues, answer questions, or create a shared project. In general, both cooperative and collaborative approaches allow learners to work in small groups on a structured activity. This teaching technique involves a series of independent learning activities that are aimed at accomplishing a specific set of learning objectives. Learners are accountable for both their own work and the collective work of the learning group.

During the 1980's and '90's, several writers began advocating the use of more structured small group activities under the name of collaborative or cooperative learning. This [combined] approach represents a significant step up from the casual use of small groups in terms of the potential for significant learning. (Fink, 2007, p. 6)

Mills and Cottell (1998) see team learning as a subgroup within the cooperative learning model; however, Fink (2007, p. 8) suggests that cooperative learning and team learning be seen as complementary but distinct approaches under the general concept of small group learning. He describes team learning as follows:

Team learning teams have two features that offer major advantages in an educational situation. As members of a team, individual students become willing to commit to a very high level of effort in their learning, and learning teams are capable of solving problems that are beyond the capability of even their most talented members. (p. 7)

Michaelsen (2009) argues that to be effective, learning teams must have sufficient resources to allow members to work together and complete assignments, they must have an appropriate assessment system, and the learning methods used should foster cohesiveness among the learners. Fink (2007) describes team learning as a, “particular course structure that is designed to support the development of high performance learning teams and to provide opportunities for these teams to engage in significant learning tasks” (p. 8).
There are two key ideas in this definition. The first is that team learning is a course structure, not a series of independent small group activities. Although teachers can and have borrowed “pieces” of team learning (usually the Readiness Assurance Process), team learning itself consists of a particular course structure, that is, a particular set and sequence of learning activities. The second key idea is that team learning revolves around the development of teams, a kind of social unit that is quite distinct from a group. (p. 8)

Despite this course structure, some students complain about working in teams with others who waste time, or who are overly dependent on a dominant leader (Edmonson, Bohmer, & Pisano, 2001). Others suggest that there is a tendency for “group think” (Janis, 1972), a state that can lead to conservative decisions being made because members are reluctant to express their true feelings about a situation. Laiken (1998), from the field of adult education and organizational learning, suggests that a high-performing team consists of a small number of people who have a shared purpose, approach, and skills and are accountable to each other and attentive to the processes as well as the goals. In addition, members of a high-performing team need to have a high level of commitment to the success of the work and need time to develop trust in each other. It is not clear from the education literature whether health care students and trainees use these educational team-learning strategies in practice-based placements, with real patient teams. The current research is intended to shed light on this issue.

### 2.3.2 Organizational and team learning in the workplace

In this section, I explore the literature pertaining to organizational and team learning in the workplace. The terms “organizational learning” and “learning organization” are often used interchangeably in the literature; however, they are sufficiently different as to be regarded as complementary to each other. Easterby-Smith, Burgoyne, & Araujo, (1999, p. 1) note that the idea of organizational learning has been present in the management literature for decades, but it has only been widely recognized since 1990. Argyris (1993) introduces the concept of
organizational learning, which he describes as members learning for the organization.

“Organizational learning” traditionally refers to a process of learning to solve problems, adapting to change, and continuously changing in the organization (Argyris, 1990; Argyris & Schön, 1978).

Later, in the 1990s, Peter Senge (1990) and Senge et al., (1994) popularized the concept of learning organization and added to the research in this area pioneered by Chris Argyris and Donald Schön (1978). Senge (1990) claims that organizations can learn, and that this learning can be enhanced by changes in organizational roles and relationships. According to Senge and colleagues, (1994), organizations have values and are able to obtain a competitive advantage from continuous learning as a product of how the members within an organization think and interact.

Senge suggests that people in the workplace, “expand their capacity to create results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to learn together” (p. 1).

Looking at how people learn to learn together, Peter Senge (1990) identifies five disciplines that an organization should embody and support: personal mastery, which encourages individuals to generate and sustain a creative tension in order to expand their ability to produce the results they want in life; mental models, which involves recognition of the discrepancies between individuals’ words and the theories that underlie their actions; shared vision, which promotes the building of a sense of a commitment to common goals among individuals within the organization; team learning, which involves collective thinking to achieve the organization’s vision; and systems thinking, which encourages individuals to understand learning in context. In order to understand how the organization works, Senge suggests that shared vision, systems
thinking, and mental models need to come first in the creation of an organization followed by team learning and personal mastery.

Jamali, Khoury, & Sahyoun, (2006) describe several characteristics that are necessary to support learning to learn together. These include individual empowerment, teamwork, trust, commitment, communication, and flexibility. According to O’Keeffe (2002), the accumulation of individual learning constitutes team learning. The benefit of team or shared learning is that staff grows more quickly and the problem-solving capacity of the organization is improved through better access to knowledge and expertise.

Senge et al., (1994, p. 437) emphasizes that the team learning agenda of executive teams must focus on developing effective methods for capturing and accessing collective knowledge within the organization. The literature also links team learning to organizational learning by introducing the concepts of single loop or adaptive learning versus double loop or generative learning (Argyris & Schön, 1978). Single loop learning places emphasis on the detection and correction of errors within a given set of governing variables that is linked to incremental change in the organization. For example, where something goes wrong, you look for another strategy to fix it, such as, if the overhead projector is not working at the time of the presentation, then use the laptop. Double loop learning is about understanding actions and causes, or problem-solving, together with the single loop’s detection and correction of errors in the organization. Therefore, if the overhead projector is not working at the time of the presentation, and an alternate strategy is to use another presentation method, in double loop learning, it is important to find out the reason why the overhead projector did not work. In double loop learning there is an emphasis on transparency, which allows leaders to understand the causes of problems and to examine the truths behind workplace actions. Double loop learning involves encouraging individuals to seek
causes, to be transparent, to ask questions, to take responsibility for personal actions, and to expose the messiness of conflicts within the organization.

Argyris (1994) explores how the dynamics of communication can hinder employee productivity and prevent learning. Wang and Ahmed (2003) argue that a hierarchical organization is a culture of anti-learning. Argyris suggests that embedded within the culture of hierarchical organizations are psychological patterns that discourage employees from taking initiative, taking risks, and engaging in double loop learning. Argyris (1994) also suggests that the modes of communication typically used in organizations result in the avoidance of reflection and a failure to gain information that permits real change and learning. Argyris goes on to suggest that it is critical to the development of an effective organization that all members be empowered to examine their own behaviour and take responsibility for it. Thus, in this view, self-awareness is crucial for growth and learning.

In addressing growth and learning in the organization and teams, Revans (1997) developed the concept of action learning in the workplace. Revans’ action learning occurs when learners with diverse skills and experience come together to analyze problems and to develop and implement action plans in the workplace collectively. The action learning group continues to meet as actions are carried out, thus enabling a form of team learning through problem-solving and co-learning. Learning theorist, Kolb (1984), suggests that learning occurs through reflection on experience (p. 41). This form of action learning can involve members being continuously involved in events, gaining insights by carrying out actions and reflecting on their participation.

Wang and Ahmed (2003) introduce the concept of triple loop learning, which they describe as a process of constantly questioning existing products, processes, and systems, asking where the organization will stand in the future marketplace. This is different from double loop
learning, which focuses on finding out what is wrong and how to correct and prevent errors. Wang and Ahmed argue that the concept of triple loop learning is valuable because it addresses the learning process and emphasises fostering creative thinking in the workplace. The authors recommend that organizational learning incorporate a higher degree of creativity in order to achieve greater success. Triple loop learning is aimed at promoting the success of an organization by focusing on collective learning, knowledge management, and continuous improvement.

In addressing organizational learning, Laiken (2003) examines the concept of informal learning through case studies of four organizations, and reports that informal learning happens naturally, as part of everyday work. This type of learning is critical for achieving organizational goals and for providing a stimulating, challenging, learning environment for all employees. Laiken suggests that learning should be integrated into change processes at the individual, team, and systemic levels (formalizing the informal). To do this, Laiken suggests that mistakes be viewed as opportunities, that a no-blame culture be created, that leadership involve modelling, that time be given in regular meetings to reflection on process, and that autonomy on the job be supported. Three activities are core: creating a value-based vision, making sure that systems, procedures, and processes reflect vision and values in action, and continuously evaluating the vision within the context of daily work life (pp. 8-19).

Even within some non-hierarchical learning organizations, problems can prevent the learning process. Once these problems are identified, work can begin on solving them. In an article on, “applying the learning organization concept in a resource squeezed service organization”, authors Marsick and Watkins (1998) use the Dimensions of the Learning Organization Questionnaire to discover how team members adapt skills learned in training in a
team environment. They found that lack of focus on team learning is due to a lack of dialogue and enquiry by team members. Team members being willing to engage in learning is not enough; members need the practical support of the leaders, as is suggested by the learner-centered approach to adult learning. A learner-centered orientation, “places the learner or client at the centre of the process, with the facilitator in a responsive, supportive role” (Laiken, 2001, p. 293). The object is to view team members as whole learners, a process that includes, “such aspects as the emotional, cognitive, social, physical, and spiritual characteristics” (Laiken, 2001, p. 292)—a humanist approach to supporting holistic learning.

There are other approaches and tools for facilitating team learning discussed in the literature. For example, Honold (2006) proposes a tool called Reflective Notes that was developed at Harley-Davidson, the United States motorcycle manufacturer, to help groups from different departments, who meet on an ongoing basis, develop mutual understanding and team learning. During the meetings, one individual takes on the role of the analyst, who is silent and takes Reflective Notes. The analyst focuses on how communication takes place, including both verbal and non-verbal cues, observations that will help the group reflect on how to improve communication. After the meeting, the analyst prepares the notes, describing his or her observations and the themes of the meeting. These may be augmented by visual images produced by others at the meeting. The analyst also provides questions to help the group members reflect on their experience of the meeting. The written notes are sent out to the participants before the next meeting. The first item at the next meeting is an opportunity for group members to talk about any issue important to them based on the Reflective Notes. The Reflective Notes also provide a written record to assist in team learning.
A similar tool is also suggested by Isaacs (1993, pp. 24-41) in his conclusions on a case study on dialogue in action. Isaacs wanted to understand collective learning and conflict resolution, and the practical applications of dialogue theory. Isaacs suggests engaging in reflection to illuminate ways of knowing, use of language, and the meaning of experience so that they can be used as tools to support dialogue in action and team learning. Given these tools and approaches to team learning within the general learning organization context, in the next section, I discuss the interprofessional perspective on learning for health care professionals.

2.3.3 Interprofessional perspectives on team learning

Since the mid 1980s, an interprofessional approach has been an important global vision for preparing health profession students and practitioners to provide patient care in a team environment. In 1987, in the United Kingdom, the Center for the Advancement of Interprofessional Professional Education (CAIPE) was established, followed by the creation of The Journal for Interprofessional Care, which was first published in 1986. Although, interprofessional education studies have drawn explicitly upon organizational learning concepts (e.g. Barrett et al., 2007; Wilcock, Campion-Smith, & Head, 2002; Carroll & Edmondson, 2002; Clegg, 2000; Lipshitz, 2000), current uses of the word interprofessional tend to be varied and ubiquitous. The roots of the meaning of interprofessional are in two parts: inter, which means involving two or more, among various groups and professionals, which in the health care field describes self-regulating groups of people with a common body of knowledge. Inter-professional therefore implies interactions or working together of these self-regulating groups of people. We might say that interprofessional describes behavior that involves a community centered on learning about and bringing together specific common bodies of knowledge and information, focused on the complex needs of the patient to collaboratively create a body of knowledge. The
use of the term *interprofessional* has been used extensively in the literature (Barr, 1995; Barr, Koppel, Reeves, Hammick, & Freeth, 2005; Coleman, Roberts, & Wulff, 2008; Curran, Sharpe, & Forristall, 2007; Finch, 2000; Gilbert, 2005; Ginsburg, & Tregunno, 2005; Reeves, Rice, Gotlib, Lee-Miller, Kenaszchuk, & Zwarenstein, 2009; Rice, Zwarenstei, Gotlib Conn, Kenaszchuk, Russell & Reeves, 2010; Barker, & Oandasan, 2005; Illingworth, & Cheivanayagam 2007; Lingard, Gotlib-Conn, Russell, Reeves, Miller, Kenaszchuk, & Zwarenstein, 2007; Nisbet, Hendry, & Rolls, 2008; Freeth, 2001) to describe health care professionals working together with and learning from other professionals as they deliver a range of services. This interprofessional approach is intended to improve the future of health care by educating and training health care professionals to work together and share expertise in a team environment (Romanow, 2003) leading to meeting the needs of patients to promote, maintain, monitor, or restore health.

A key aspect of improving health care places strong emphasis on improving patient safety in interprofessional care (Horak, Pauig, Keidan, & Kerns, 2004). Eisenberg, (2000) suggests that the public are now concerned with medical errors and patient safety. This presents the health care professions with a great learning opportunity. Because health care changes so rapidly, it is vital that its professionals commit to and engage in learning to improve patient safety over the course of a professional career, as recommended by regulatory professional bodies. Some regulatory bodies, such as specialty boards or health professional colleges, grant permission to practice within a profession to persons meeting predetermined qualifications in a given occupation or using a particular title. Interestingly, post graduation, each profession separately identifies the role of ongoing professional development as a key to the maintenance of competence and continuous quality improvement to address the need to reduce errors and
increase patient safety. However, this identification of the role of ongoing professional development as a key to maintaining competence is built on an individualistic model. It does not address the collective, interprofessional team learning model.

It has been suggested that interprofessional activities, such as interprofessional education, will better prepare professionals to work together to deliver cohesive and integrated health care in response to patients’ needs (Bandali, et al., 2008; Barr, 1995; Barr, 2000). Interprofessional education involves interprofessional learning, which refers to learning arising from an interaction among members (or students) from various professions. This may happen spontaneously in the workplace or during structured programs. Much of the health care literature on interprofessional learning focuses solely on training and professional development (Davidhizar, & Bechtel, 2000; Curran, Sargeant, & Hollett, 2007a; D’eon, 2005; Nisbet, et al., 2008) and less on the concepts of interprofessional team learning. There are few case studies of organizational learning using a team-based model in health care settings (Lipshitz, 2000; Carroll & Edmondson, 2002). For example, in a study examining the organizational support for teams in primary health care, the authors suggest that health care professional training and self-regulated professional associations, through their certification processes, have legitimized the pursuit of professional goals in isolation from these other health care professionals (Laiken, Chatalalsingh, Bickford, Belle Brown, Gillis, & Moss, 2006).

However, Barr et al., (2005) and Hammick, Freeth, Koppel, Reeves, & Barr, (2007) report that to date there is little robust evidence to indicate that an interprofessional approach to education and learning is an effective means of enabling professionals to better understand each other, thereby improving health care delivery, patient safety and services. As a matter of fact, extensive literature has shown that health care work is fraught with conflict and tensions
Traditionally, health care professionals have been working within their specific domains to develop standards of care, priorities, problem solving approaches and values as common professional tools (Hall, 2005).

Using a sociological lens to understand individual health professions’ history and their specific domains, Reeves, MacMillian, & Van Soeren, (2010), suggest that individual professions protect and promote their own professions on the “basis of their separateness rather than their togetherness” (p.261) with other professions. Given this perspective, in an attempt to professionalize, these professional members not only become experts in their professions, but also assume stronger professional identities in their beliefs, attitudes, customs, language and behaviour (Hall, 2005). These have to do with the socialization within their specific profession that takes place during their undergraduate training, as well as reactions to the expectations from patients and other professions. Medical health care professionals represent a unique profession in that the physician and not the institution can only admit patients to a health care organization. The physician, who may also have admitting privileges at other health care organizations in addition to managing their own clinic and office visits, determines the physician’s time and input to patient services (Graham, 1995). Therefore, while the hospital’s revenues are tied directly to the physician’s decisions, a physician may assume stronger professional identities in their behaviours. Despite efforts to provide educational opportunities and create shared spaces to practice together, there is a silo-like division of knowledge among each profession which makes it difficult to focus on meeting the needs of patients and clients (D’Amour & Oandasan, 2005).

In Canada and internationally, (Goble 1994, Tope 1996, Graham & Wealthall 1999, Ross & Southgate 2000, Barr 2005c, Barr, 2000; Herbert, 2005), the concept of the health care team has been an important step in advancing health care for over forty years. The World
Health Organization has been proactive in advancing interprofessional education. Through the 1970s, 80s, 90s, and 2000s, many interprofessional education initiatives were developed that covered a range of health issues. Government policies further reinforced the value of collaboration and thus the need for “shared learning” or “joint training” (Reeves & Oandasan, 2005). In 2003, Health Canada began the Interprofessional Education for Collaborative Patient-Centered Practice Initiative in response to the problems of fragmented health care practices and the increasing complexity of patients’ needs (Molyneux, 2001).

As we shift our focus of health care delivery from individual professionals to interprofessional practice, a growing body of work has also provided insight into the challenges of an interprofessional approach to learning and caring within teams and health care organizations. For example, according to Graham, (1995), many teams have well-established profession-driven turf battles over responsibility and authority for specific patient care services. Many health care professionals display allegiance to their professional bodies of knowledge and performance codes of conduct rather than to the values of the team in which they work. This sort of thing can cause barriers to coordination of care. Further, some departments and teams are structured based on a vertical hierarchy of reporting relationships that deal with interprofessional tensions and conflicts (Graham, 1995). The overall team’s quality of work and performance are not considered in the traditional individual employee evaluation and reward systems. Many departments and teams have front-line supervisors and managers that are only concerned about the members as subordinates under their control. Interprofessional conflicts may be the result of an organizational hierarchy that lacks resources and support for health care professionals.

To manage these challenges, researchers and advocates of the interprofessional approach are attempting to change the way health care professionals learn and work; however, while some
interprofessional initiatives work, there still seem to be problems with increasing collaboration by building on the individual learning and focusing on a collective learning. Despite these current attempts at increasing collaboration, and thereby flattening hierarchies, according to Lingard et al., (2004), they can reflect a false sense of the team as a unified entity rather than as a collection of individuals with distinct professional identities with different models of caring and working. The interprofessional practice literature has acknowledged the importance of improving collaboration (Day et al., 2004) and collaborative practices in the workplace while other studies have shown that communication and collaboration skills are less emphasized in some interprofessional pre-licensure curricula (Janicik, Kalet, Schwartz, Zabar, & Lipkin, 2007; Prideaux, Alexander, Bower, Dacre, Haist, & Jolly, 2000).

Given these perspectives and approaches, what has been less well integrated into the current constructions of the interprofessional approach to learning is the recognition that health care team members must not only deliver effective health care together, but also learn how to be professionals in practice. Less well explored is the extent to which the collective responsibility of well-established team members to teach the next generation of health care providers has the potential to further enhance the culture of team learning for all students, trainees and members. That is, few studies have evaluated how the presence of health care students in the clinical setting influences the culture and interprofessional activities of a health care team from the perspective of its functioning as a team learning community (Barker & Oandasan 2005; Barr, 2005b; Bleakley, 2006). This is not to say that there is no literature examining the effects of students on their environments. For example, most studies have described the burdens and benefits that professional healthcare students have on the overall productivity of the health care learning institutions in which they are placed. Bristow and Hagler (1994), for example, assessed
the impact of student supervision on the productivity of physical therapy staff in several units and found a significant decrease in time dedicated to patient related activities (amounting to approximately a half-hour per day) during the months when a student was present. At the same time, supervisors reported spending approximately one full hour per day in students’ related activities, suggesting a higher overall workload despite the decrease in patient oriented activity time. By contrast, Holland (1997), compared two teams in physiotherapy, one consisting of a senior physiotherapist alone and one consisting of the same therapist paired with a student therapist. Holland reported that the physiotherapist when alone treated fewer patients than when paired with the student, and without a decrease in the quality of patient care. This indicated that the team with a student present increased in overall productivity. Furthermore, Kearl and colleagues, (1993) suggest that the responsibilities of teaching ambulatory care to medical students did not diminish the number of patients seen per half day. It did not therefore affect the productivity of physicians. Thus, when using “productivity” as an outcome measure, studies appear to vary regarding the impact of having health professional students on the team. A review of studies on the impact of interprofessional education professional practice and health care outcome shows that traditional teaching methods have little impact in team learning (Zwarenstein, Reeves, Barr, Hammick, Koppel, & Atkins, 2001; Bandali, et al., 2008). While some studies address Interprofessional learning or learning in interprofessional teams, few studies have focused on the clinical setting and interprofessional team learning activities as part of educational plans, which have specific goals for achieving skills and competencies. The goal of interprofessional learning is for students to learn how to function in an interprofessional team and carry this knowledge, skill, and value into their future practice, ultimately providing
interprofessional patient care as part of a collaborative team focused on improving patient outcomes.

To understand interprofessional team learning, it makes sense to understand how the relationship between the knowledge used daily during team member’s interactions in real situations contribute to the understanding of the nature of learning as a team. This discussion focuses on establishing an understanding of the words *Interprofessional team learning* based on the current literature. Some literature shows that interprofessional teams may enhance the quality of patient care, lower costs, decrease patients' length of stay, and reduce medical errors (e.g. Barr et al., 2005; Brashers, Curry, Harper, 2001; Freeth, Hammick, Reeves, Koppel, Barr, 2005). In an earlier study about a well-established outpatient team, interprofessional team learning was “not an aggregate of individuals who learn. Rather team learning involved a group of individuals, as a collective, sharing knowledge, skills and experience based on elements of respect and trust among the team members” (Chatalalsingh, 2007, p.25). Knowledge shared did not count as team learning until it became new knowledge that was meaningful and relevant to the team as a collective. An outcome-oriented definition of interprofessional team learning in the literature is described as creating “a relatively permanent change in the team’s collective level of knowledge and skills produced by the shared experience of team members” (Ellis, Hollenbeck, Ilgen, Porter, West, & Moon, 2003, p. 822). Day and colleagues (2004) further suggest that based on this view of the collective level of knowledge, team learning depends on each member’s individual ability to acquire knowledge, skills and abilities as well as his or her ability to collectively share that information with teammates. It makes sense to say that interprofessional team learning might involve a community of health care workers, students and trainees, and professionals centered around the concepts of communication, mutual respect, interaction and participation in learning
as a social process through which knowledge is created to benefit the individual members and the team as an entity. While gaining an understanding of interprofessional learning and its relevance to creating a synergy among various professional learning together, it might be argued that interprofessional learning is different from the emphasis on interprofessional team learning. Exploring the dynamics of interprofessional team learning strategies may help deal with the obstacles to learning to provide quality care.

In the next section, I discuss what is known about team learning specifically in academic health care organizations.

2.3.3.1 Academic health care organizations and team learning

Academic health care organizations are challenging, complex places. Davies (2008) reports that the Institute of Medicine describes academic health care organizations as multiple-function sites committed to improving the health of patients through collaboration in research, education, and patient care. In order to learn how best to care for patients, it has long been regarded that relationships among health care professions need to be collaborative in nature (Herbert, 2005; Gilbert, 2005; Patel, Cytryn, Shortliffe, & Safran, 2000; Ross & Southgate 2000).

Learning often occurs in the context of teams faced with the challenges and complexities of research, teaching, and patient care (Brooks & Moriarty, 2006; Chatalalsingh & Regehr, 2006) in an academic health care setting. It makes sense, therefore, that the nature of the team will have a strong impact on the nature of the learning that will happen and—more importantly—that leaders will have great influence on the quality of that learning. Senge argues, “Team learning is vital because teams, not individuals, are the fundamental learning unit in modern organizations” (1990, p.10). Since patient care is generally performed as a team activity in an academic health
care organization, team learning is vital, because teams are pivotal to the organization achieving safe and effective patient care. Frankford, Patterson, and Konrad, (2000) suggest that learning can be realized if new or reformed practice organizations combine education and service delivery and institutionalize processes of individual and collective reflection. They further suggest that reflective practice is collegial, experiential, reflective lifelong learning using methods such as integrating problem-based learning into the practice setting. Along these lines, Patel et al., (2000), in exploring the nature of team interaction and its relation to training health professionals, draw on theoretical and analytical frameworks from the sociocognitive sciences. They show that the uniqueness of individual professional expertise or the diversity of individuals contributes to the unity of building the team and accomplishment of team goals.

Team learning should engage individuals in interactions and relationships in a community of team learners. But as Katzenbach and Smith (1993) suggest, the recognition of individuals is crucial to team success. If individuals are not recognized, team performance can be negatively affected, and it can even lead to the destruction of the team. However, if recognized in terms of the team’s performance in the face of challenges, then individual concerns and differences become sources of collective strength (p. 14). We need new learning theories that look at this collective strength by taking into account the nature of informal education, mentoring, coaching, and informal, interprofessional conversations at the team learning level in the dynamic and complex context of the academic environment.

Roy Romanow recommends that “in view of . . . changing trends, corresponding changes must be made in the way health care providers are educated and trained. If health care providers are expected to work together and share expertise in a team environment, it makes sense that their education and training should prepare them for this type of working arrangement”
The 2003 Canadian Federal Budget supports this view: “ongoing changes in the delivery of health care services, particularly the trend towards multidisciplinary, team-based approaches in primary care, mean that the roles and responsibilities of various health care providers are evolving” (Goodale, 2003, p. 78).

Current discussion surrounding the Romanow Report has stressed the importance of interprofessional collaborative patient-centered care and has generated significant initiatives among educators, practitioners, colleges, universities, and researchers affiliated with academic health care organizations. An Interprofessional Education for Collaborative Patient-Centered Practice initiative was created by the Ministry of Health to provide financial support for the development of interprofessional curricula that will change the way health professionals work together in practice. Other academic and health care institutions include Health Force Ontario, the Ministry of Health and Long-term Care and the Ministry of Training, Colleges and Universities in Ontario. On an international scale, the Institute of Medicine in the United States and the National Health Service in Great Britain have advocated for increased health professions training and education in interprofessional teamwork as a means to improve patient outcomes. (Institute of Medicine, 2001; Institute of Medicine, 2004; Barr & Waterton 1996).

In the past few years, and since 2006 when this research began, the field of interprofessional practice has evolved exponentially both on local and international levels. The aim of interprofessional educators and researchers is to get all individuals at various levels of health care training from pre-licensure to workplace placements to learn to work together both within and across organizations to improve patient care, outcomes, and overall health care performance. Current local initiatives on the Interprofessional Care Project website, available at:
www.healthforceontario.ca (2010), aimed at promoting interprofessional practice in the academic health care under study include:

- Enhancing Collaboration in Primary and Mental Care and Addition through Interprofessional Care and Education. Agency: Health Force Ontario.
- Development and Evaluation of an Inter-professional Competency-Based Patient Safety Educational Strategy in an Acute Care Teaching Hospital. Agency: Health Force Ontario
- Development of a Case Based Clinical Online Environment for Interprofessional Education in Emergency and Critical Care Services. Agency: Health Force Ontario
- Teaching an interprofessional approach to the management of musculoskeletal problems in primary care. Agency: Educational Development Fund, University of Toronto
- Evaluation of case-based interprofessional education: development and implementation Agency: Undergraduate Medical Education Curriculum Renewal Fund, University of Toronto
- An evaluation of using BlackBerrys to improve clinical communication and quality of care. Agency: Ontario Ministry of Health and Long Term Care

In the context of health care education, trainees and students coming from educational institutions with a teacher-centered role of learning, are shifting towards a learner-centered role that is less formal and often involves two or more health care professionals learning with, from, and about each other (Hilton, & Morris, 2001; Jackson, Nicholson, & Davidson, 2006; Kipp, McKim, & Zieber, 2006; Searle, Haidet, Kelly, Schneider, Seidel, & Richards, 2003). This shift happens when students and trainees begin their field placements, practicums or internships. While years of formal instruction have relegated students and trainees to a passive role in the learning process, today efforts in educational institutions are being made to train students and trainees to engage actively in learning in practice (Michaelsen, Bauman, & Fink, 2004). For
example, many structures are in place for learning with, from, and about each other, such as human resources education and training workshops, shadowing programs, research days, and events celebrating professionals’ practices.

As discussed in the above section, 2.3.3 Interprofessional perspectives on team learning about sociological pressures, Hall (2005) points out that each health profession has evolved under the influence of both its own internal forces and on-going historical and sociological pressures. For example, according to Graham, (1995) as students become practicing health care professional team members, they:

“have highly technical and extensive educational backgrounds, yet relatively limited scopes of practice as defined by their professional association’s self interests… health care workers sometimes display greater allegiance to a professional body of knowledge and behaviour codes than to the values and goals of the organization they work for” (p. 286).

This lack of allegiance to organizational values and goals has “led to the development of long standing interprofessional turf boundary conflicts over area of patient care responsibility, authority and resource control” (Graham, 1995, p. 286). Qualifying students make specific assumptions about their profession as well as other professions. While actively engaged in learning in practice, students are given the opportunity to reflect on their assumptions about their profession and health care practitioners, and like the “established members” in the workplace, are able to examine their own roles and their interactions as they learn to work with colleagues, peers, and patients.

Today, most teams in academic health care organizations are encouraged to engage in interprofessional collaborative practices shaped around the health needs of individual patients, their families, and communities. The intention is that interprofessional collaborative practice (IPCP) be:
Designed to promote the active participation of each discipline in patient care. It enhances patient- and family-centered goals and values, provides mechanisms for continuous communication among caregivers, optimizes staff participation in clinical decision making within and across disciplines and fosters respect for disciplinary contributions of all professionals, (Health Canada, 2003)

Romanow goes on to stress that, “the direction of our health care system must be shaped around health needs of individual patients, their families and communities” (Romanow, 2002, p. 50). Many organizations, including the academic health care organization in this study, are fully committed to, and engaged in, incorporating the concepts of interprofessional education, teamwork, and collaboration into practice (Illingworth, & Cheivanayagam, 2007; Laiken, et. al., 2006). Currently, there is constant pressure to bridge the gap between interprofessional education and actual practice being brought to bear by interprofessional education researchers, policymakers, and health practitioners (McEwen, 1994; Meads, & Ashcroft, 2005; Nolte, & Tremblay, 2005; Curran, et al., 2007a; Finch, 2000). However, whether bridging the gap between interprofessional education and interprofessional practice is taking place is unclear (Romanow, 2002). A critical perspective is therefore fundamental to understanding how interprofessional education and workplace learning theory can shape best practice models for the future of our health care system.

Today, many researchers are focused on discovering ways to improve interprofessional practice and care (Lingard, et al., 2004; Pethybridge, 2004; Simpson, 2007). For example, Hilton and Morris, (2001), in their study about interprofessional team skill development in a health care context, suggests that case conferences, team meetings, ward rounds, and discharge planning are examples of interprofessional care and collaborative practice. Other researchers, from the University of Alberta, Edmonton, are studying student placements, looking for ways to improve interprofessional education. Kipp and colleagues’ (2007) study of interprofessional team
placements in diabetes care (medicine, nursing, nutrition, and pharmacy) shows that students increased their knowledge of other professionals and their knowledge of diabetes management, but not of team functioning. Suggestions coming out of the study include the institution of scheduled team support meetings and limiting the number of students on a team to a maximum of five to six. A number of researchers are working together to create systems that will transform hospital clinical teaching units into settings where interprofessional, collaborative patient-centered practice is enacted, learned, and evaluated. For example, one program called “The Structuring Communication Relationships for Interprofessional Teamwork (SCRIPT) Programme” (Reeves, Russell, Zwarenstein, Kenaschuk, Conn, Doran, Sinclair, Lingard, Oandasan, Thorpe, Austin, Beales, Hindmarsh, Whiteside, Hodges, Nasmith, Silver, Miller, Vogwill, & Strauss, 2007) is being accomplished through the transformation of hospital clinical teaching units into interprofessional, collaborative patient-centered practice settings.

All these initiatives, from across the globe, aim to discover ways to improve interprofessional practice and care including workshops, formal education programs, and simulations are being enacted outside of clinical settings. However, there is very little emphasis on understanding how real teams function and understanding the role of day-to-day conversations among health care workers in team learning. Many studies show the benefits of teams; for example, Finch (2000), Nolte and Tremblay (2005), and Meads and Ashcroft (2005) all suggest that the benefits arising from the combined efforts of the members exceed the benefits of individuals acting alone in a team. While this may be encouraging, I believe that there is a lack of understanding of how academic health care teams actually utilize the collaborative interprofessional approach. We need to better understand the nature of health care team leadership in a highly complex interprofessional environment, grounded in a self-regulated
health profession culture, governed by both corporate and professional leaders. We need new learning theories that look beyond the individual and take into account, for example, the role of informal conversations in team learning in dynamic and complex academic health care environments. However rather less attention has been paid to (Bleakley, 2006; Boyatzis, 2007; Brooks, & Moriarty, 2006; Carroll, & Edmondson, 2002; Huber, 2000) systematically assessing the effects of leading and team learning in academic health care, where trainee supervision involves team members in practice with interprofessional students, non-professional staff, various professionals, and researchers in their day-to-day social interactions. I end this chapter with a brief summary of the key leadership, learning and interprofessional literature relevant to this study’s exploration of interprofessional team learning with the context of an academic health care organization.

2.4 Summary

Few studies have systematically assessed clinical leaders’ role in facilitating team learning or in the creation of a model of professional team collaboration in an interprofessional, patient-centered care context. A review of the literature on leadership and team learning suggests that team learning practices in an academic health care organization are best understood as a dynamic interaction between members and their social context. Today, health care professionals are increasingly expressing an interest in using the team learning approach to establish effective collaborative patient care and better integrate responsibilities to patients with responsibilities to the team.

Despite these approaches, there are limited resources to help clinicians who take on a team leader role to combine their primary interest as practitioners with their new responsibility of
establishing effective collaborative patient care. Developing team resources will not only provide explicit opportunities for clinicians, but also make them more effective as interprofessional team leaders. One resource that could be developed is training. Most health professions (nursing excepted) receive little or no training in how to lead clinical teams in academic health care organizations. As well, there has been no significant research exploring the team learning leader in practice.

Another barrier to the development of collaborative practice and team learning is the fact that different health care professions have different roles, languages, practices, standards of care, priorities, and values and these differences tend to create approaches to care that are exclusive of others (Romanow, 2002). For my research, I sought to understand how leaders perceive their role in shaping the team learning agenda and how they understand the nature of knowledge, their members’ actions and interactions, and team learning within the context of an academic health care organization. I started from the premise that interprofessional team learning for collaborative patient-centered practice is the desired outcome.

The contribution of this research, therefore, is to determine how clinical team leaders behave in an academic health care organization and to understand how they are incorporated into workplace team-learning activities. In this study, I used as my data the experiences of leaders and my observations of two well-established teams in a large, urban academic health care organization in Toronto. The perspectives and observations of the leaders in this study contribute to a model of interprofessional team learning and an approach to learning in practice. Having reviewed the relevant leadership, learning, and interprofessional learning literature and described how this study aims to address the gaps revealed, the next chapter presents and discusses the methodology employed to address the study’s research aims.
Chapter Three:
Methodology

3.0 Introduction

This chapter describes the methodological approach taken to address the research questions. I begin with section 3.1 - Methodology and rationale, by positioning the researcher, as self, relative to the research problem, which I believe is the preliminary task of a qualitative study. Next, in 3.2, the Methods section, I describe my approach and setting, followed by 3.3, my details of data collection used to gain an in-depth understanding of the day-to-day work of clinical team leaders. In section 3.4, I discuss the methods of analysis. In section 3.5, methodological reflections, I then reflect on the authenticity and trustworthiness of the research. I include a discussion of ethical issues, research dilemmas and challenges, justification of decisions made, unexpected rewards and strengths and limitations. I end the chapter with a summary of the methodology in section 3.6.

3.1 Methodology and Rationale

The intent of this study is to increase understanding of leaders and team learning activities among health care workers in the interprofessional context of an academic health care organization. It is important that I make explicit who I am as the researcher and define my standpoint. Although I come from a positivist science tradition as a health care professional, I have learned that research can do more than identify the factors that influence outcomes, such as those identified in experiments and randomized controlled tests (Maxwell, 2005). I believe that
research can also be like a journey that I plan while remaining open to the many routes that it might take me.

Denzin and Lincoln (2005) refer to qualitative research as a, “situated activity that locates the observer in the world” (p. 3). As I reflected on locating myself, my research interests, and the life experiences and values that have inspired me, I also reflected on my views about knowledge to determine how to move forward in both understanding myself as researcher and addressing my research question.

I approached the research with an interpretivist view of knowledge, that is, from the view that knowledge and truth are relative to a constructed perspective (Guba, 1990). “The task of the researcher is to understand the multiple social constructions of meaning and knowledge” (Robson, 2006, p.27) from personal experience and interactions with others. The knowledge gained from these social activities, relationships, and interactions lead to an expansion in self-awareness. My experience as a health care professional assisted me in exploring my passion for understanding the dynamics of academic health care team practice. Studying clinical leaders who are focused on shaping interprofessional team learning allowed me to draw on my experiences as a health care professional.

As an interpretivist researcher, I acknowledge that my background helped to shape my interpretations. The decision to use interpretivism is based on the recognition that the goal of my research is to understand and explore the meaning of leaders’ interactions and how they interpret their natural, everyday, practical experiences. Blaikie (1993) describes interpretivism as understanding the social world people construct and reproducing it through their continuing activities. Further, an interpretivist approach allowed me to explore team leaders’ emergent beliefs and behaviours within the structural context and culture of specialized, interprofessional,
outpatient teams. Finally, as an interpretivist researcher, I also paid attention to the relationship I shared with team members and research informants.

Interpretivism is based on the theoretical perspective of interactionism (Denzin & Lincoln, 1994; Gearing, 2004). Interactionism provides insights into how individuals find meaning in their social interactions (Blumer, 1969). Interactionism has an interest in understanding how individuals develop and modify this meaning through their everyday social interactions and communications. Since we each have different experiences, assumptions, and values, the knowledge we generate will also be different. It is important to recognize that knowledge is not only shaped by our experiences, but also by the context in which we practise. I believe that we know reality through the construct of personal meaning; the meaning constructed as people engage with the world. I am seeking in my research approach to understand the perspectives of the participants and to understand how things work. Next, I talk about the research methods, techniques, and procedures that I thought would best serve the purpose of understanding the nature of interprofessional team learning.

3.2 Methods

3.2.1 Approach and Setting

An ethnographic method was selected because I felt this approach would allow for a detailed exploration of the social culture and settings of team learning with an emphasis on understanding participants’ voices, practices, and beliefs (Atkinson & Pugsley, 2005). “Ethnographic study seeks to capture, interpret and explain how a group, organization or community live, experience and make sense of their lives and their world” (Robson, 2006, p. 89). According to Reeves, Albert, Kuper, & Hodges, (2008 a), ethnography allows us to study social
interactions, behaviours, and perceptions that occur within groups, teams, organizations, and communities. “The central aim of ethnography is to provide rich, holistic insights into people’s views and actions, as well as the nature (that is, sights, sounds) of the location they inhabit, through the collection of detailed observations and interviews” (Reeves et al., 2008a, p. 337).

Given these features of the ethnographic method, it is a suitable method for developing an understanding of the day-to-day work routines of teams within the context of an academic health care organization, their natural setting, as well as an understanding of the culture, social process, and perceptions (Hammersley & Atkinson, 1995) of team leaders within the team setting.

The team sites were selected for the following key reasons. First, these sites were a convenient sample and defined by being well-established for over 10 years each in the patient population they served, and the manner in which they served them. Second, I had an insider’s knowledge with the department of nephrology, having worked in this context as a nephrology dietitian team member for several years in one team, and I was known to the other study team within the same department. This knowledge allowed for strong interpretive participant observation and maximized the likelihood that subtle team exchanges would be recognized and understood from the perspective of the team members. In fact, as a researcher with insider’s knowledge, my reflections on the role of researcher, and my assumptions and reactions to the details of the team were illuminating during the data collection and analysis. Third, the teams, by virtue of their interprofessional perspectives including the team leaders, continually plan and design services to meet the needs of the patient population they serve to achieve the best possible outcomes, a fact which makes them rich in interest for this study. Fourth, the value of education is inherent in the goals of these teams generally, and in the unit managers, program
directors, and staff members individually. The teams focus on mentoring, through a collective approach and ongoing communication, a diverse student placement population specializing in nephrology. Finally, there were several opportunities and tasks involving patient care, research and education for team members to truly learn, create, and contribute to the transfer and sharing of information pertaining to the team learning. These involve activities such as regular, ongoing informal discussions among team members in a central area, formal interactions among professionals in the ambulatory patient care clinics involving multiple health care staff in a concentrated period during three individual peritoneal dialysis clinics and two individual chronic kidney disease clinics each week; and the formal activity of team meetings involving discussions of both patient care and educational sessions, with detailed discussions and information sharing of activities and including multiple health professionals.

Through these two teams, this study provides a meaningful example of how team leaders emerge as clinicians and mentors involved in interprofessional team learning activities. The goal of this team learning ethnography was to produce a deeper understanding of the social interactions and activities of emerging leaders of the two teams. I believe that these teams are set apart from others because they are well-established, specialized, outpatient, interprofessional teams: a peritoneal dialysis team, team A, and a chronic kidney disease team, team B, within a nephrology division.

3.2.1.1 Team A: Peritoneal Dialysis

The first team I chose as a focus of this study is a peritoneal dialysis team of which I was a dietitian member for over twelve years - thus I have insider’s knowledge. I was, for example, aware of many “firsts” that occurred within this team. For example, in 1976, two leading
nephrologist team members designed a peritoneal dialysis catheter that is still used extensively today. I have fond memories of working with a first time ever Microbiologist-in-Chief who came from another major centre to join this new and emerging peritoneal dialysis team. Over the years, he became known for his work with peritonitis and for developing diagnostic criteria that international students and trainees learn about today. I saw the nurse manager create an advisory council to allow patients to share concerns and interact with staff and professionals beyond individual clinical care. As well, this team initiated a city-wide group with others in the community who were interested in sharing information about peritoneal dialysis. As a dietitian, I was the first to use a new body composition assessment technique called bioelectrical impedance analysis, which I combined with other techniques to develop a unique comprehensive nutritional assessment approach to caring for dialysis patients. Most members guided, coached, mentored, and encouraged each other to learn through research projects and by teaching students and trainees.

This peritoneal dialysis team consists of ten to twelve members (described in more detail in Chapter Four), professionals, staff, and volunteers, who came together over twenty-five years ago. Members display a deep understanding of and respect for each other; they celebrate personal and professional milestones such as weddings, births, retirements, children’s graduations, becoming grandparents, adoptions, deaths, and other work and family events. This team is located in a permanent space in which team members interact daily. The team is an ambulatory home dialysis unit, meaning that patients come and go, and team members work together in one day shift with an on-call person available to patients after hours. This team is described in more depth in Chapter Four, Section 4.1, Team A.
3.2.1.2 Team B: Chronic Kidney Disease

The decision to include team B in the study came after observations and interviews had been done with team A. I struggled with how to design the study. Initially phase one of this study, observations and interviews with team leaders from the dialysis unit, team A, was to be the entire study. Upon reflection, and because I wanted to immerse myself in a new team within the same academic health care organization, I decided to include other teams. I wanted to see if I would find the same approaches to leadership in action in other teams. I observed team leaders’ actions to see what they really did to enable team learning.

Although I knew some members of team B in a collegial way, I had no experience of its day-to-day interactions. However, team A members suggested team B as another well-established team within the department of nephrology suitable for the study. With this in mind, I further reflected on the preliminary themes that were starting to emerge from observations of and interviews with team A, and decided to amend the ethics application to allow me to explore some of the concepts that were emerging in a new context. Following ethics amendment approval, I contacted team B administrators and team leaders for consent prior to a period of observation. I blended into team B as a participant-observer to gain a more extensive understanding of leading team learning. Team B as a case site provided a rich opportunity for the exploration of the issues that arise as team members work together to provide care. Like team A, team B is made up of eight to twelve members (also described in Chapter Four). Team B consists of multiple health care professionals and staff who have worked together for over ten years to help manage the care of patients with kidney disease not requiring dialysis. According to Watson and Kelman (2008), the chronic kidney disease team aims to improve kidney function, slow down the progression of early kidney disease and help patients manage end-stage kidney failure through dialysis and/or
transplantation. The team members who came together to make up this team work together in support of patients’ wellness, dealing with all aspects of kidney failure. The team members support the patients and caregivers as well as their fellow professional colleagues. Team B is described in more depth in Chapter Four, Section 4.2, Team B.

3.3 Data Collection

The primary objective of data collection was to explore the experiences and perceptions of leading team learning with team leaders who were willing to participate in the study. The exploration of the nature of these specialized, interprofessional teams involved the use of participant observation, in-depth interviews, and team members’ personal narratives as data collection techniques. The study took place with institutional review board approval at a tertiary care academic hospital associated with many community and urban health professional university settings. Table 1: provides an overview of the details of data collected for the study. The discussion of data collection is divided into four phases: 3.3.1 introductions and consent, 3.3.2 participant observation, 3.3.3 interviews with team leaders while immersed in participant observation and 3.3.4 multiple sources of data collection.
<table>
<thead>
<tr>
<th>Data collection</th>
<th>Team A</th>
<th>Team B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant Observation</td>
<td>150 hours (smaller, well-known team): 11/07 to 01/08:</td>
<td>400 hours (larger, new team): 04/08 to 09/08:</td>
</tr>
<tr>
<td></td>
<td>• three clinics per week (two-four hours each)</td>
<td>• two clinics per week (five-eights hours each)</td>
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<tr>
<td></td>
<td>• non-clinic team interactions</td>
<td>• non-clinic team planning sessions</td>
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<tr>
<td></td>
<td>• informal team leaders’ and members’ clinic interactions</td>
<td>• informal team leaders’ and members’ interactions in hallways and conference room</td>
</tr>
<tr>
<td></td>
<td>• nursing unit and hallways discussions</td>
<td>• formal patient care team meetings, education and research rounds</td>
</tr>
<tr>
<td></td>
<td>• formal team meetings: patient care rounds; education rounds; accreditation; and continuous quality team meetings.</td>
<td>• post clinic debrief meetings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• informal team leaders’ and members’ interactions in cubicle office area.</td>
</tr>
<tr>
<td>Interviews: In-depth</td>
<td>3 out of 4 leaders interviewed</td>
<td>9 out of 10 leaders interviewed</td>
</tr>
<tr>
<td>(four formal and eight informal leaders from the two teams); Member checking (8 leaders); Informal interviews (15 from members)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documents</td>
<td>team unit information, team members and student’s schedules, student’s handbook, accreditation handbook, non-restricted committee minutes</td>
<td>policies, manuals, nephrology handbooks, accreditation reports, record of educations rounds presentations</td>
</tr>
</tbody>
</table>

Table 1: Details of data collected for the study
3.3.1 Introductions and Consent

I presented details of the proposed research at education rounds and provided information sheets to all team members, students, and trainees. It was made clear that participation in this study was completely voluntary and although the administrative consent allowed me to observe the teams, any individual team member or student could refuse to be part of the study. The entry stage began once the administrative letter of consent was received from the team. At this stage, I prepared to begin observing the team members in their daily activities, as well as the interactions between the clinical team leaders and health professional team members.

3.3.2 Participant Observation

I used participant observation to understand the nature of team members’ and leaders’ day-to-day interactions in the two teams (Angrosino, & Mays de Perez, 2000; Emerson, Fretz, & Shaw, 2001). Participant observations involved learning about the social processes, the social practices of participants, the manner in which they related to each other and how they interpreted their world. According to Reeves, Kuper, & Hodges, (2008c), ethnographers typically gather participant observations, necessitating direct engagement and involvement with the world they are studying. For the purposes of this study, I blended into the peritoneal dialysis and chronic kidney disease teams as a participant-observer. The nature of my participant observation involved focussing on who was there; any unusual details of the physical team space; details of team members’ and leaders’ interactions and important verbatim comments of interest to my study. A participant-observer, by definition, has a more in-depth understanding of the research site and has a relationship with the subjects (Hammersley & Atkinson, 1995). Participant observation data are said to be less susceptible to biases inherent in the accounts people give of
their own actions, caused by factors such as the wish to present themselves in a good light, differences in recall, selectivity, and the influences exerted by the roles they occupy. While I recognize that perceptions did not always match the reality, and that leaders may have presented themselves differently while being observed than they would be in "everyday life" with their teams, I believe that this was minimal. I say this because in the moment and in reality, leaders’ interactions and actions were focused on giving timely care to patients. There was no time to alter “everyday life” conversations or interactions in caring for the patient. Time was always of the essence - leaders were always in a situation for a given time to do a specific task. For example, clinics were 4 hours long, and fully booked with patients. Team meetings were scheduled for 2-3 hours and all patients were discussed, with each team member providing relevant information to make decisions in the moment. Thus, the data collected through observation provides an opportunity to gain insight into what team members and leaders do on a daily basis. It is important to note that observations may also contain biases of the observer, which, as I will discuss later in the section of this chapter about methodological reflections, can be understood by the use of the reflexive approach.

Prior to the main observation period, I used the first two to four days as practice observation days to record general information about the study context. For team A, the practice days allowed members to get used to me and overcome any initial unease about the presence of a participant-observer, especially among newer members and students. In team B, I was welcomed into the team as a fellow member or trainee and was assigned to follow specific patients as they interacted with team members. As discussed earlier, this research was not about patients, and I collected no specific data regarding patients’ interactions or personal care; however, since the team welcomed me as a member, they immediately oriented and guided my attention to patient
care. I accepted this welcome as a way to _get inside_ the team, while I focused my attention on team members’ and leaders’ interactions, instead of patient care. However, these few practice days with team B offered a unique perspective on team members’ interactions from the standpoint of the patient, as an orientation for me. For participant observation, I adopted a reactive mode of field entry (Atkinson & Hammersley, 1994) that allowed leaders and team members to react to me as an observer in the field, and gradually draw me into their activities.

Immediately following the orientation days, I proceeded with formal data collection, which focused in more detail on specific issues of interest. This observation style began with descriptive observations (“the observation of everything”) and with increased exposure, the observer moves on to, “focused observation in which certain things, defined as irrelevant, can be ignored” (Denzin & Lincoln, 1994, p. 381).

Informal interactions of leaders and members were observed in a central location of the nursing station of the peritoneal dialysis team and in the clinic location of the chronic disease team, and were documented in my field notes. During my observations, I entered into the day-to-day routines of the peritoneal dialysis (team A) and the chronic kidney disease (team B) to observe social interactions and the physical settings in which those interactions occurred over time. In order to account for variables such as the volume of patient care activities and the experience level of practitioners, students, and researchers, which could be expected to fluctuate on a daily basis, one hundred and fifty hours of field observation took place over three months (November, 2007 to January, 2008) for team A. Observations consisted of four hundred hours over six months (April, 2008 to September, 2008) for team B. I scheduled three to four hours observation sessions in an attempt to maximize relevant data collection, and sessions were distributed from 8:00 a.m. to 4:00 p.m., and on some days (in team B), until 5:00 pm during the
day of observations. Reflective field notes were written immediately afterwards. The total observation phase yielded five hundred and fifty hours worth of data regarding the leading of team learning activities in the two teams, such as ambulatory care clinics (two hundred and forty hours), non-clinic team interactions- hallways, at elevators, and nursing stations (seventy-eight hours), clinic informal team members’ huddles (sixty hours), patient care team meetings (fifty-two hours), education and research rounds (thirty-two hours), accreditation meetings (two-hours), informal team leaders’ and members’ interactions in office cubicles (sixty-four hours), post-clinic process meeting (ten hours) and morning reports (twelve hours).

As the participant-observer, I kept detailed, structured field notes recorded in a notebook. I recorded details of conversations and discussions during the observation period in order to capture the content of conversations, their context, the participants, and the nonverbal nuances that accompanied the exchanges. Of note, as the field observation progressed, I also collected data from conversations the team leaders and members began to have with me. In addition, when times were quiet (for example, while waiting for a trainee or team member in the central area or waiting for a telephone call, or a patient), team members would recount examples related to patient and team-related activities that were particularly memorable to them. I used informal interviews during observation times to clarify data that were collected. These data (I collected fifteen such interviews) allowed me to obtain additional insights from team members about their day-to-day work interactions, and clarify any uncertainty I had around events that occurred during observations. While observational data were gathered in ‘real time’, the informal interviews were usually written up shortly after they occurred. This approach was intended to preserve the more ‘natural feel’ of this type of interview. This allowed me to observe and understand broad aspects of the relevant issues and to gather specific data about the patterns of
learning in the teams. This type of anecdotal and interview-style data added to the richness of the
data set. During the field observations, I asked questions such as: How are you doing today?
What is happening right now? During observations in the cubicle setting, I asked the staff (clinic
secretary and ward clerk): What is important to you at this time? How would you describe your
work? Immediately following each day of observation, I elaborated on my field notes in light of
emerging analytical considerations to produce a set of observation notes comprising concrete
details; methodological notes comprising self messages concerning methodology; theoretical
notes comprising hunches and insights; and personal notes comprising unrestricted doubts,
pleasures, and feelings about the research. I observed all activities in each team until there
seemed to be little new information to be collected. I documented events as systematically as
possible to increase the reliability of the information in this study. Data collected were stored as
multiple sources in a comprehensive and systematic format that could be referenced and
accessed in an organized way.

According to Reeves et al., (2008c), interviews conducted by participant-observers can
elicit more in-depth and highly candid accounts from research participants. I used in-depth
interviews conducted while I was immersed in the field as the next form of data collection.

3.3.3 Interviews with team leaders while immersed in participant observation.

Just hanging out in the [team environment where team leaders’] interviews are to
be conducted will give an introduction to the [specific kidney disease] language,
the daily routines, and the power structures, and so provide a sense of what the
interviewees will be talking about. (Kvale, 1996, p. 96)

Although I had selection criteria in mind, I was able to solicit participants when I did a
presentation on my master’s research (Chatalalsingh, 2007), and the intent of my doctoral study.
The intent of the presentation was to find participants as well as to inform team members of the
proposed research. Two presentations took place, predominantly at education rounds for teams A and B, which all nephrology practitioners and staff attend. I also presented my research at the annual research day for health care professionals and staff interested in learning more about research topics related to nephrology. During presentations of my proposed research, I asked team members to confidentially nominate people whom they felt exemplified leadership qualities that helped them feel a part of the team. I asked team members to consider qualities based on four criteria:

i. Integrating into the working relationships of the team with an ability to instill excitement through a deep understanding of being an active part of the team.
ii. Functioning as facilitators of learning, promoting a team-learning environment.
iii. Not being representatives of the organization, but seen in service of the team.
iv. Any other reason that a team member might be considered a learning leader

I reiterated that this study was to be about an exploration of leaders of learning as opposed to a leader of the team members. I asked members to write the names on pieces of paper and confidentially pass them to me. Members could e-mail me if they wished, or provide names during the course of the week in sealed envelopes. I asked members to share this request with anyone who was not at the meeting. I reserved time to respond to questions, to clarify ideas and to welcome suggestions. Team members confidentially nominated colleagues who they felt were true interprofessional team learning leaders (e.g., a nurse identified a physician as a team leader or a chiropodist identified a nurse coordinator as a team leader and so on), as discussed above in the section on “Introductions and Consent”. Leaders were then recruited through email and telephone contact, followed by a one-on-one presentation of the research proposal. Four leaders from team A were identified and three agreed to be interviewed. In team B, ten leaders were identified and nine were interviewed. With consent of the participants, I scheduled 90-minute interviews with leaders from each team.
3.3.3.1 Interviews

I used in-depth, semi-structured, member checking, and informal interviews to understand perceptions and experiences (Gilchrist & Williams, 1999) of team members identified as leaders of team learning, and to explore the value of knowledge gained from leaders’ day-to-day conversations in shaping the interprofessional team learning agenda. Clinical interviews are dietitians’ most effective tools for collecting information from patients and their families to be used in the assessment, planning and implementation of nutritional care. “A qualitative research interview is a construction site for knowledge. An interview is literally an inter view, an inter-change of views between two persons conversing about a theme of mutual interest” (Kvale, 1996, p. 14). Both clinical and research interviews can be considered a conversation, a dialogue in which both the interviewer and the interviewee are participants. This “attempts to understand the world from the subjects’ points of view, to unfold the meaning of peoples’ experiences, to uncover their lived worlds prior to scientific explanations” (Kvale, 1996, p. 1).

As I immersed myself in the day-to-day activities of team A, and in order to elucidate my observations, I used in-depth interviews as structured conversations, to develop an understanding of the team leaders’ perspectives and feelings about leading team learning in practice, and the meanings they constructed around their experiences. This less formal conversational approach to interviewing felt more natural in team A, because the participants and I already knew each other. This familiarity may have obscured the power relations between myself and team A participants who were from other professions. I also learned from team A members that the chronic kidney disease team (to which I was an outsider) may have been more well-established than the peritoneal dialysis team.
For both teams, I allowed leaders to decide where the interview should take place. Some leaders opted for their offices and others preferred a private interview room away from their clinic. I audio-taped interviews so that I could fully participate in the conversations and not be distracted by having to take notes. I provided interview participants with details of the process for the interview, for example the use of audio recorders, and information about my research. I gave the participants an opportunity to ask questions before beginning the interview. Interviews consisted of open-ended questions that were informal in nature. I used the interview questionnaire that I was asked to create by the ethics board as a guide for the interview. But for the most part, I allowed the interview conversation to evolve naturally. I used the interview questionnaire as a general checklist of the topic areas I wanted to explore. See Appendix A for an example of the interview questionnaire that was created at the early stages of the research for ethics approval. I followed up participant’s answers, seeking new information about team learning and new angles for investigation.

The interviews involved participants discussing the personal meaning and significance of their experience with their teams; the quality of relationships and communication among team members; the emphasis placed on team learning, interprofessional practice and functioning within the teams; and the cultural, ethical issues of learning as a team to care for patients. In order to gain insight into how the team leaders relate to an academic health care environment, they were asked to provide a description of leadership in this context. Participants were asked to describe their perspective on interprofessional team learning and to discuss their day-to-day leadership activities. The information gained was used to clarify my participant observations and to confirm or modify my analysis of observation field notes. As participants drew me into their stories, I listened for the meaning they took from their experiences. I asked myself questions
such as: What is my sense about what I am hearing? What did I learn that was new to me? What was surprising? What new information am I acquiring that calls for further investigation? What do I need to clarify?

At the end, we debriefed about how much I enjoyed the interview, the process for the rest of the research and some of the content highlights, and how helpful their input will be in the research. When I had no more specific questions, I let the participants know and asked them if they had any questions, comments, or thoughts to add to what had been discussed. There were times at the end, after I turned the audio recorders off that participants continued discussing the topic. This was important, as I discovered that these participants were so much more at ease once the recording was done, that they began to express further thoughts and feelings. At this time, I listened without taking notes to preserve the ‘natural feel’ of the interview. After each interview, I sat quietly for about half an hour and wrote about my impressions, my relationship with the interviewee, the process, the interviewee’s facial and body expressions, and any other reflections that might elucidate the tape-recorded and non-tape-recorded exchange. I transcribed the audio recordings, and working with the transcripts, together with my reflective notes, immediately began descriptive analysis and interpretation (Lapadat, 2000). My analysis thus began during the course of data collection. I began to form preliminary understandings and make decisions about themes and categories based on the insights, ideas, thoughts, and dilemmas gained through data collection. In-depth semi-structured 60-90-minute interviews were conducted with twelve leaders, including four formal leaders and eight informal leaders. Eight follow-up, member-checking interviews took place to clarify and elucidate findings. These were valuable in exploring different aspects of leading team learning, the details of experiences and personal reflections on the formal and informal leadership that emerged in this study.
3.3.4 Multiple Sources of Data

Drawing on multiple methods, I used a collection of different types of data, such as observations, interviews and documents, to help provide richer insights into the phenomenon under study. Through my immersion as participant observer with both teams A and B, I developed an in-depth perspective on the interactions and conversations that were happening in real time. Through the various team activities, I observed many interactions and social processes that helped to inform the research question. To cross check my observations, I used my own insights, team members’ perspectives, and documents such as the accreditation reports, students’ handbook, dialysis manuals, and non-restricted continuous quality initiative meeting minutes, which were available on the departmental intranet. Records of presentation and students schedules were collected to supplement the personal perspectives that were collected in interviews and observations. To enhance the rigour of the research, I used these documents as a form of data triangulation.

In order to use my own insights to enhance the rigour of the research, I included my experience with a loosely collected in-patient transplant team.

During data collection, I joined the multi-organ transplant unit as a part-time clinical dietitian member. The transplant unit functioned with many smaller teams representing multiple organs that are transplanted, e.g. heart team, lung team, liver team, kidney team and small bowel team. To triangulate findings, my experiences with this multi-organ transplant unit were used as a point of comparison among my observations of the teams chosen for the study. Putting this new work experience in context allowed me to build up a much fuller picture through comparison with well-established teams. For example, I observed the general work routine
where team members move skillfully in and out as consultants to the team instead of being day-to-day, established, permanent, team members. During this period, I was struck by the differences between the multi-organ transplant division and the nephrology division. The multi-organ transplant division, unlike the nephrology division, has many smaller functioning teams in the same ward location, representing the various organs that are transplanted (e.g., heart team, lung team, liver team, kidney team). The unit I joined cared for in-patients and was different from the out-patient study teams, in that it represented three loosely collected smaller teams, each with individualized, unique, working processes.

Although there are some levels of collaboration and coordination in providing patient care, my experience was fraught with instances of competition and tensions in dealing with a practice leader who had no experience caring for transplant patients and was unfamiliar with the team. I experienced conflict in having to follow procedures that were not in alignment with the rest of the transplant team; for example, replacing an established position with the team by distributing and restructuring work tasks among more than one person in the team. This experience made me reflective of my assumptions, values and ideas while it also spoke to the issue of leadership and what leaders brought to the team learning agenda.

The final source of data I used involved member checking and informal interviews as a form of data triangulation. During in-depth interviews, I wanted to get a better understanding of how team leaders organized their worlds and to understand their thinking styles or frames of reference. Although I was not able to observe team leaders’ feelings, thoughts, perspectives or intentions that may have influenced actions and interactions, I engaged in member-checks with team leaders. I contacted team leaders in person and through e-mail to provide copies of my transcripts and interpretations to elicit responses and feedback. Along with my distribution of
findings and interpretations, I repeated the objectives of the research. I used these member checks to confirm that data was not revealing and offered an opportunity for members to withdraw. While no one withdrew from the study, one example of confirming was when I first started this research, I called team B the “pre-dialysis team”; however, the leaders preferred the new title that I now use, the “chronic kidney disease team”. During data collection and analysis, I wanted to get better insights into how team leaders and members interacted and related and to understand their interactions; using participant observation technique meant that I had the opportunity to collect informal interviews and team members’ narratives in the form of short conversations. These data (I collected 15 such interviews) allowed me to obtain additional insights from team members about their team work and learning and to clarify any uncertainty I had around events that occurred in the field. Typically, they occurred serendipitously, often in the nursing station, on the way to team meetings or in the cubicle area.

3.4 Methods of Analysis

There is little to no existing research from in-depth investigations of interprofessional team learning leadership in an ambulatory academic health care team. I hope that this ethnographic study will serve to amplify the leaders’ experience with team learning and increase our understanding of the functioning of health care teams. My analysis depended on my perspective as a researcher and the extended interplay between data collection in out-patient teams, triangulation of my experience in an in-patient team, and analysis. I went back to the research questions that I asked at the beginning of this study: what are the perceptions and experiences of team members identified as leaders of team learning in out-patient teams? What are the role of day-to-day conversations and the value of knowledge in shaping the
interprofessional team learning agenda on a day-to-day basis? How do leaders and members learn to function within the organizational context of an academic health care institution?

I used inductive thematic analysis as described by Hammersley and Atkinson (1995) to analyze the data. This approach focuses on the inductive emergence of meaning from data by searching for themes descriptive of the phenomena that emerge (Daly, Kellehear, & Gliksman, 1997). I started by deconstructing the dataset to identify broad emerging categories as soon as data collection began. My field notes, reflective notes, researcher notes from the participant observations, informal interview notes, in-depth interview transcripts, documents, personal narratives of individuals and my experience as a new team member in an in-patient established transplant team were content-analyzed for emergent categories, using simple Microsoft Office WORD and EXCEL tables as data management tools. At this stage of the analysis, the ‘deconstruction of the data’ meant that I took the data apart. This process entailed the generation of a large number of different conceptual categories. I interwove categories of shared patterns of behaviour, of participants with patterns of perceptions, and language emerging from interview transcripts and documents that were conceptually linked to one another. For example, a category entitled “Self-Confidence” emerged in participants’ perceptions related to the role of leader in relating to other team members. A shared pattern of confidence behaviour from observation field notes linked to the perceptions and experiences emerging in the transcripts. To help frame this initial process of analysis, I categorized, tabulated, and recombined data to address the initial propositions of the study. The result of this initial deconstruction produced overarching categories from which I could then begin a more detailed analysis of the data. (See Appendix E for selected themes from this stage of the analysis).
I followed by “putting the data together” or ‘reconstructing’ the loosely connected categories in a more systematic fashion involving a process of data comparison. This work involved undertaking a careful comparison of the data contained in each category, in order to ensure that there was a sufficient degree of conceptual similarity between them. If I found that the data compared poorly within a category, they were either re-assigned to a more appropriate category or used to create a new one. The result of this second stage work was a more conceptually rigorous analysis of emergent themes from the data. (See Appendix F for selected themes from this stage of the analysis). Boyatzis defines a theme as, “a pattern in the information that at minimum describes and organises the possible observations and at maximum interprets aspects of the phenomenon” (1998, p. 161). I was looking for an emerging story.

I then re-examined my analysis to again compare data themes in order to identify explanations that may be outliers to the emerging ‘story’. An example of an outlier to the emerging story was the time a team leader in team A asked why a patient’s chart was on the table when the patient’s name was not on the list for discussion or presentation at the clinic. This type of question was not frequent, and while it seemed like a question that could berate the team, my insider’s knowledge and observations of the light hearted way in which the team members responded to the question, confirmed that it was a legitimate question for information. The nuance of this question was a legitimate need for information about whether the patient had died, which sometimes happens.

These checks were designed to look for discrepancies. I discussed the thematic analysis with my research supervisor and committee members during our regular meetings and during research rounds presentations. Discrepancies were resolved through referral to specific examples
in the data and participants’ reviews of the findings, including transcript extracts and my summary of the findings.

I employed methodological triangulation (a technique which involves the collection of different types of data to provide richer insights into the phenomenon under study). In doing so, I triangulated interview, observation and documentary data. This process involved the close comparison of emerging analyses from, for example, the team leader’s interview data as compared to the data I collected from observing them in clinics, meetings and day-to-day interactions with the team members. In using this technique, I was able to compare and contrast the nature of various interprofessional teams and their leaders within the same academic health care organization, to produce a more complex and insightful understanding of this phenomenon. During the analysis process, I ensured that I searched for both convergence and divergence in the data to help enhance the richness and depth of my analysis (Silverman, 1994). For example, an interesting divergence that emerged was related to a small number of leaders whose interview data indicated that the team engaged in debriefing meetings; however, observations of debrief meetings indicated that only one or two core members that were available actually met. I undertook the analysis of the data over a period of one year, through a process of reading and rereading and organizing the data to identify common themes. I generated a tentative theoretical interpretation by reflecting on the larger meaning of the interactions of leaders and members engaged in interprofessional team learning. Triangulation of data was achieved by drawing on multiple data sources, methods, and theories combined with the development of thick descriptions and paying full attention to multiple or alternative voices (Creswell, 1998, p. 196).
3.5 Methodological Reflections

This final part of this chapter offers a series of reflections on the methodology employed in the study.

3.5.1 Reflexivity

Reflexivity is important in ethnographic work and is useful for enhancing the validity of a study. Reflexivity asks how the researcher-researched relationship affects the research process. Rather than attempting to prevent my values from affecting my relationship with those studied through stringent adherence to method, I worked to consciously acknowledge those values. To begin the reflexive approach, a self-critique is needed to understand the ideas of personal quest, being subjective, and the idea of having empathy (Denzin and Lincoln, 1994, p. 569). During the course of the study I kept reflective notes of my personal assumptions and goals, to help me clarify my belief systems and subjectivities. Reflexivity provides valuable understanding of how researchers’ personal ideas and experiences influence their empirical work (Hammersley & Atkinson 1995). In what follows I describe my background and key experiences that have shaped my thinking. In presenting this account, I aim to provide the reader with an understanding of factors that may have influenced the study’s findings.

As discussed in Chapter One, I worked as a registered dietitian in the organization where the study was conducted. My interest in this study at a large academic health care organization, in a large Canadian city, began when I joined the Dietetic Internship Committee fifteen years ago, and began working with students and trainees in practice-based learning in teams. During this time, I began observing many different students as they moved through their rotations to develop clinical competencies and skills. Being a mentor and facilitator of practice-based learning provided me with an additional opportunity to observe students and how they interacted
with team members from other professions, members who were willing to share information with these trainees on a day-to-day basis. More importantly, through mentoring and teaching in practice, I took the time to learn more about who my team members were and about their scope of practice and roles on the team. Being interested in how students learn in practice led me to wonder, if, as a team, we were learning from each other as we taught our students. Further, as a dietitian, I became part of the peritoneal dialysis team and was a mentor for many students from various professions beyond the role of mentor for only nutrition students; I spent protected time teaching and mentoring other professional visiting scholars, fellows, trainees, and students. These learners scheduled time with me to learn about my role and my contributions to the team in providing quality patient care. I witnessed forms of informal team learning and members leading learning for other members and students from various professions by taking time to discuss and share information. This influenced my thoughts at the conception of this thesis and throughout. What is occurring in the team to make formal leaders, as well as other members, learn from each other? What is occurring in the team to encourage the mentoring of students and trainees from other professions?

My position as session instructor at the School of Nutrition, Ryerson University, likewise has provided numerous examples of students from one profession learning from another professional member. I have learned from these nursing students about their roles, concerns, and socializing practices within their profession. Based on this experience, it has become clearer to me that we need to shift our focus from the individualist view of learning to a collective view of learning to give students an overall interprofessional team learning experience. As professions come together with non-professionals, patients and care givers, they do so as independents, strong with profession-specific knowledge. I had a desire to understand how, as a team, we
could teach students not only clinical skills but also how to be an interprofessional member with other professional and non-professional members. I had a desire to understand transformational growth in learning of professionals who were already team members. I also wanted to know how interprofessional team learning was enabled through individual and collective efforts. Most importantly, I had a desire to understand how these teams became focused on team learning, who led these, and how I might one day be a leader of team learning in clinical practice.

Recognizing how my gender, ethnic background, and social status influenced my work, as well as examining my personal values, are all important aspects of producing a reflexive account. Perhaps because I am a Canadian female researcher of East Indian descent, I was acutely aware that all the participants identified as leaders were Caucasian. Moreover, I started to notice that most of the corporate and management administrators within the organization were also Caucasian. However, perhaps because I was already an established health professional within the hospital, my gender and ethnicity did not appear to put me at a disadvantage as a researcher with either team leaders or members. In relation to team members who occupied formal corporate management positions, I occupied a less advantaged position, which did not affect my work. However, again because I was already an established health professional within the department of nephrology, I saw these people as peers, with an interest in better understanding the phenomenon of leading team learning.

On another note, Reinharz (1992) observes, “quantitative research defines itself as hard, firm, real ... and strong ...[and] qualitative research as soft, mushy, fuzzy, and weak” (p. 295). The impetus for my research was my experience with students engaged in clinical placements for practice-based learning. I was curious about the learning that occurred at the level of the team; however, a review of the literature highlighted the limited research that had taken place on the
utility of health care interprofessional teams learning in context. For my Masters I explored the nature of interprofessional team learning and serendipitously discovered the role of leaders as enablers of team learning. For my PhD research, I wanted to explore this phenomenon in-depth, using more than a case study or survey study. Most health professional clinician researchers do quantitative research, but because I had been a health professional education research fellow at the Wilson Centre and a PhD student at the Ontario Institute for Studies in Education, I had the resources to support rigorous qualitative research to explore firsthand well-established teams in practice.

3.5.2 Managing Research Relations

In my research, the researcher and the participants each enact roles critical to the research process. In my dual role as dietitian and education researcher within the study organization, it was important to examine the assumptions and presuppositions I brought to every stage of the research process. In what follows, I describe my relationship with the study teams; relationship as participant observer; relationship as interviewer and reflections on how this work has influenced me both personally and professionally. In this section, I discuss in 3.5.2.1 my relationship with the study teams; in 3.5.2.2 my relationship as participant-observer; and finally in 3.5.2.3 my relationship as interviewer.

3.5.2.1 Relationship with study teams

According to Goodwin, Pope, Mort, and Smith, (2003), there are benefits to being an insider in terms of the ease of understanding the environment, and by being given privileges. I
was already familiar with many of the members in both study teams, and I had extensive nephrology nutritional knowledge within the context of the study sites. I also had implicit knowledge of the social milieu of the peritoneal dialysis team A, and some knowledge of the activities, such as patient care meetings, and quality meetings of the chronic kidney disease team through attending education rounds in the past. This knowledge was essential, I believe, to carrying out this study. I believe that my position as past nephrology dietitian and department of nephrology colleague, allowed the access to observe study teams and record rich conversations and dialogue with the study participants that may not have been possible with a non-nephrology member. I based my comments on my experience of also having ethics approval to study a third team- an in-patient transplant team within the same organization; however, I was not known to most of the transplant team, which made it difficult to obtain access to observe or have team members nominate formal and informal leaders.

My relationship with study teams relates to the advantages involved in “researching from the inside out”. Being a familiar face in the department of nephrology helped me gain access to the teams and its members. The researcher-researched relationship commences when the researcher enters the sampling stage. At this point, the researcher uses his or her power to decide who to recruit as participants; in my case, instead of making the decision of who to cast as leader participants, I allowed my power to shift to the study teams. I was able to identify team leaders based on the nominations from team members, after presentations on the research proposal to the teams. Although I had selection criteria in mind (see section, 3.3.1 Introduction and Consent), my sampling method was to ask team members to identify the leaders on their various teams. Members were comfortable naming those whom they felt were leaders. This example illustrates
the ways in which the researcher-researched relationship is constantly evolving, and how power can shift from the researcher to the researched.

3.5.2.2 Relationship as participant-observer

Inside the division of nephrology, team A, the peritoneal dialysis ambulatory health care team represents a well-established team. I spent twelve years as a clinical member of this team prior to being seconded to an allied health fellowship to complete my education research. This team includes members from various health professions who collaborate to provide the best patient care possible. Team members have been together for over twenty years, and I was part of the team development for twelve of the twenty years. I have a close relationship with the interprofessional members and staff of this team and have been engaged in leading activities with the team. As an insider with the team, I have an in-depth understanding of the others who helped the team to develop. During my observations, I was able to see and understand interactions that allowed for more in-depth discussion and reflection. This knowledge allowed for strong interpretive participant observation and maximized the likelihood that subtle team exchanges would be recognized and understood from the perspective of the team members. I started with focused observations of team leaders’ interactions during team meeting and during non-clinic times. My reflections on my role as primary researcher, my assumptions and reactions to the details of the unit were illuminating to the data collection and analysis.

Because I was an outsider with team B, prior to the main observation period, I used practice observation days to learn about the team’s work in caring for patients with chronic kidney disease. I was scheduled by the team coordinators to follow patients as they interacted with team members. Since the focus of this study is not the roles of team members from the
patient’s perspective, and because there was no plan to include observations of patients in the study, I struggled at first with this assigned role. It turned out, however, to be a useful approach. The outcome was that I was quickly accepted as a learning member with the team. During the practice observation days, team members welcomed me as a clinician fellow and began providing detailed explanations of clinical aspects of patient care, such as assessment, diagnosis, care plans, etc. As a result, I really felt that I had a unique perspective, as a clinician fellow, in observing team member’s interactions.

Because most team students did not know me, my aim was to become familiar to them to minimize any discomfort there might be when I began my participant observation. At times during data collection, I answered clinical nutrition questions I was asked in my capacity as a dietitian; I also laughed at jokes, answered the phone when asked because I was close, and responded to questions about team events that were happening around me: Where did the fellow [trainee] go? Did the patient leave? In a way I became one of the gang - I was even invited to a special social event with some of the team members. There was a fine line between researcher and dietitian, and managing this was at times difficult. I wondered what would have happened in the team had I not been there.

In this section I focus on what it meant to have a dual identity as a dietitian and qualitative researcher, and how this affected my relationship with my research participants. My professional role informs my approach to this study in several ways. As a dietitian, I have engaged in team activities with many of the participants in this study. I continue to be part of their informal social activities and hear first-hand about team interactions and tensions within the organization. My insider’s knowledge allowed for strong interpretive participant observation,
and enhanced my ability to recognize and understand subtle team exchanges from the perspective of team members and leaders.

To avoid any biases, I made a conscious effort to remain open to new and unexpected events; I used member checking to confirm or disconfirm my understanding of what was happening and I wrote field notes into a narrative account immediately following observation. I was able to identify emerging concepts, such as conversation prompts and dialogue related to leaders and team learning. I was alert to anything in the data that might reinforce or disconfirm these emerging concepts of leaders and team learning.

As a participant observer, I became aware of the kinds of communication and collaboration that occur among team members, as well as the potential barriers to communication and collaboration. To the best of my ability, I attempted to gain insights into the nuances of communications, conversations, non-verbal expressions, and routine team practices. Moments when I experienced tension between my roles as participant-observer and dietitian were few, as I did not have an official team member role as a dietitian. I situated myself as researcher with a marginal participant position, which was advantageous. As I was contributing nothing to the care of patients and little to team members’ concerns about nutrition, fellowship, and school, I could easily record observations directly as they occurred. I did not use audio tapes. I collected observational data by manually recording them in a note pad.

I answered questions related to my role as a PhD student, including my future career directions. This type of conversation is common among health care professionals who are pursuing a higher education. As part of the team, I felt the pain and sadness team members felt as they recalled the loss experienced by one member who was on bereavement leave. I cried with team members as we shared stories and memories.
The observation phase served as an opportunity for me, as an insider-outsider, to explore beliefs based on my former experiences. Initially, I found it hard to move away from my experience with the peritoneal dialysis team and focus on the new team, especially since two members worked in both teams. However, within the first few practice days, I became aware of the uniqueness of the chronic kidney disease team in context. I began to focus on the leader’s role in this new team. My perceptions were being shaped by my involvement.

Further, there is no doubt that my perceptions were also influenced by my selective memory; however, I believe that the routine and repetition of team members’ actions and interactions during the time spent with this team lessened this effect, to a certain extent.

During my observations, the Hawthorne effect (Holden, 2001), which involved team members behaving differently because they are cognizant of being watched, became quite apparent on three occasions. However, these occurred in varying degrees only at the initial stage, and with only one or two newer team members who did not know me as a practitioner on the unit. I felt that newer team members were a little uneasy having an observer in the clinic. On one occasion, two newer team members started talking in another language and at a lower volume, knowing that I was observing their interaction. In an attempt to make the participants more comfortable with me, I adopted an increased “participant” role. My adopting an interest in patient care and discussing nutrition management decisions created a more natural situation. I simply redirected my focus to alleviate any unease and thus drew members into my study. On another occasion, during the first couple of days, team members commented in a light hearted, humorous way that they hoped that I had recorded their actions, for example, what they were having for lunch, as part of my data collection. On this occasion, I was seen as a researcher - I had not yet blended into the team as a participant-observer. Finally, there were moments when team members looked
in my general direction for a quick response on nutrition topics. I blended into the team up until the moments in which team members became aware of my role as researcher, because they realized that I was not there to see patients or provide nutritional information to others. Over time, as I blended in, I remained quiet throughout the team meetings except for education rounds, when I occasionally offered a comment about the content of an evidence-based article being discussed.

3.5.2.3 Relationship as Interviewer

As a dietitian, I use clinical semi-structured interviews, including open-ended questions, to collect and record information, face-to-face, in order to understand patients’ concerns and plan nutritional care. I built on this experience to develop a more conversational interview style for use with my research participants. My clinical interviews tend to be one-sided, in that I am interacting with patients who need my help, and in some cases the unequal power between an expert and someone needing expert knowledge is evident. My research interviews needed to be different. “The structure of research interviews [came] close to an every-day conversation” (Kvale, 1996, p. 27). I started the first few interviews with an interview guide in mind, as in a semi-structured approach. However, as the conversation continued, I began to open up and let it go in any direction around the topic of leaders and team learning and collaborative practice. I would then pick up on threads in the conversation to further explore areas that I needed to understand more about.

In relation to data collection, my interview guide began changing from one interview to the next based on themes that were surfacing. For example, a few informants referred to various topics as meaningful aspects of their roles. One interviewee mentioned that being self-aware is
crucial to learning. Another interviewee suggested that having a family-life balance was important to leading learning. To further explore these issues, I focused on these particular topics or themes with other interviewees. New questions continually emerged as I began to understand more about the leaders’ roles. I remained open to the respondents’ statements. Not only did I take in what was said, I was observant of, and tried to interpret, body and facial expressions and gestures. As an interviewer, I allowed the interviewee to choose the location, time, and length of the interview and to set its pace. I began each interview with casual conversation to establish rapport. Since most informants either knew me or knew of me as a clinician within the organization, I answered many questions about my fellowship, my studies, my children, and my teaching.

Because I was audio-taping, I did not take notes during the interviews; however, I did have a pen and paper to jot down words that I later used as prompts in the conversation to explore subjects raised in more detail. Following each in-depth interview, I kept one to two hours free to write my researcher’s notes. Although it is inevitable that minor detail was lost in writing notes this way, I believe that this was compensated for by the ease of the conversations.

I was aware that informants might present only positive images of their roles in the teams, so I used field observations to confirm and disconfirm the impressions conveyed in the in-depth interviews. Based on informal conversations during observation and the observation of team practices, there seemed to be open, honest sharing. This was aided by the fact that patient care was happening in the moment, and the leaders and team members were more focused on providing care than on my research interests.

In some cases, interviewees seemed keen to tell me that they were surprised to be selected as a leader and that they did not place emphasis on being seen as a leader; rather, they
were focused on caring for the patient and their fellow team members. Commonly, people told me “I’m a follower” or “I am honoured, but I am about patient-centered care and don’t think of myself as a leader”. Yet despite these claims, I was struck by the fact that all interviewees spoke about actions that I interpreted as leadership roles in their teams. It may be that their humility is one reason they were chosen as leaders.

Finally, to address some of the limitations of being an insider and in examining my relationship with research informants, I learned to use a process of examining the obvious (Atkinson & Delamont, 1994). Following interviews, I wrote reflective notes. I thought of what seemed obvious to me and tried to force myself to apply a different set of lenses to it. I asked myself questions like “what assumptions are leading me to believe this? What else could this mean? If I were not an insider, how might I have interpreted what was said?” These were useful ways of uncovering my own limitations to interpreting the data.

3.5.3 Ethical Issues

Professional ethics dictate that I must not distort the truth, take things out of context, or change the intended meaning of participants’ remarks. I must consider ethics in the process of planning and engaging in all areas as the research unfolds (Goodwin et al., 2003). Transparency, informed consent, and confidentiality have been the key to receiving ethics approval from both the university and the academic health care organization. Although the teams were not to be anonymous in this study, a crucial aspect to producing an ethical study is maintaining the anonymity and privacy of individuals who participate in the research process. Being a participant observer in a team where I worked, the Research Ethics Board’s main ethical concern was my promise of confidentiality and anonymity. Both teams were small with one or two members seen
as formal leaders that could easily be identified within the organization. I made clear that I was not interested in organizational positions of authority or professional positions of leadership; these were not to be identified. I promised confidentially so that participants would not be identified and would not be made accessible to others. Information given to researchers by participants is protected to ensure they are not exposed or placed in a compromising position as a result of their participation in a research study. To ensure that research participants’ identities are protected in this study, a number of precautions were taken:

1. Audio tapes of interviews were destroyed once they were transcribed;

2. Informants’ names were changed in the transcripts to pseudonyms;

3. Hard copies of data were stored in locked filing cabinets;

4. Electronic copies of data were stored on a PC that was password protected.

In what follows, I discuss a number of other ethical considerations that arose in the research process.

I sought and obtained ethics approval from the academic health care organization and the University of Toronto. I contacted the organizational team leaders in person for administrative consent prior to the periods of observation. Participation in this study was voluntary and although the administrative consent allowed access to observe the teams, a health care team member or student could refuse to be part of the study. There were no concerns regarding conflict of interest, financial or otherwise, as participation in this study was voluntary and I was not in a position of authority over any of the participants. Observational team study participants included team members such as staff nephrologists, nurse managers, nurse educators, nurse practitioners, nurses, and clinical professional staff including dietitians, physiotherapists,
chiropodists, social workers, pharmacists, ward clerks, ward secretaries, researchers, students, information specialists, and community representatives. Team members were informed about the study through departmental team meetings and research information sheets. Although I was a participant observer in an organization where I worked, the Research Ethics Boards were not concerned with the problem of over-identification, since I was seconded from the team where I was participating as a dietitian, to fulfil my new role as education research fellow and graduate student. In my new role, I let team members know that I did not have any professional or organizational allegiances. I had made it clear that I was professionally neutral and was not representing the organization or funded to do this research. I approached participating health care students and trainees to offer them the opportunity to ask questions about the research proposal prior to the period of observation. I recorded no data pertaining to any trainee and student who declined to participate.

I collected no specific data regarding patients’ interactions or personal care provided, and the observations did not interfere with patient care. I notified patients of the peritoneal dialysis team about the study through a patient information letter mailed to them one month prior to the observation period. Patients of the chronic kidney disease team were informed of the study by the nurse coordinators via a patients’ information sheet. I informed participants through information sheets that I was observing all interactions and conversations in order to develop a better understanding of team learning activities. I offered no financial compensation to participants, but I did send a letter of appreciation to the teams and leaders following data collection. During the consent phase, I kept observations and researcher’s notes, which include documentation of all personal narratives obtained from health care team members.
All interview participants, administrators, and students received a detailed description of my study. The information was then shared with all team members during team meetings. Team members were invited to contact me with questions about my study’s purpose and methodology, however, none did. In the early stages of data collection and during trial days, some team members informally asked more about my research and my studies. I was the first dietitian ever to be a Wilson Centre fellow doing health professional education research, so everyone wanted to know more about the centre and my role as a fellow. As well, most health care professionals are not familiar with qualitative research, so I received many questions about how it is done.

3.5.4 Research Dilemmas, Challenges, and Justifications for My Decisions

One challenge I had during the data collection period with team B was that there was a family death that resulted in the sudden absence of the team member. Because of this, day-to-day practice was altered, as others collaborated and coordinated to ensure patient safety and continuity of care during the shift of the absent team member. Although some observation days may not have been typical, which may have affected the data collection, I was moved by the empathy, friendship, and solidarity I observed. I knew that I had blended in and become part of team as a researcher when I started feeling the same solidarity and friendship with many of the team members. I decided to continue with team observations during this period and remained in the field until data collection was complete.

Although many of the observational data concerning team B were consistent with my expectations based on my observations of team A, I experienced a couple of surprises. First, I had expected the busiest time for learning to be non-clinic patient days, as I observed with team A, the peritoneal dialysis team; instead, in team B, learning seemed to happen during the clinics, when most team members and students are present and seeing patients. The team’s interactions
evolved into a high level of learning, in the moment, that built on the members’ relationships with each other. In retrospect, this is not a surprising result, as I expected that learning would happen when clinical duties allowed; however, it turned out that this team actually creates time for team reflection during clinics and team meetings. Unlike team A, the chronic kidney disease team did not have a permanent place and space where team members could interact one-on-one on non-clinic days. Team B members depended on e-mails, phone calls, pages, and impromptu meetings to interact outside of clinics and team meetings. Team B members’ offices were in various parts of the facility and members physically came together primarily in the clinic location and at meetings. I thought of the team as a clinical work team focused on working and learning together. It became apparent that the team members did not see themselves merely as a group of task-oriented professionals working together; they placed a high value on the team reflections and conversations that took place, and on generating a caring environment focused on learning together about each other’s role in practice.

Second, contrary to my expectations, I was invited to attend and observe post-clinic debriefing meetings. As an outsider to this team, this was surprising, for it suggested that I was seen and accepted as a researcher very early in the research process. I was also surprised that most team members were not at these meetings: only nurse coordinators and the clinic secretary attended. During the meetings, these team members expressed frustration about the planning and organizing of the clinics, including issues of conflict, miscommunication, or lack of resources; for example, the language translator was late getting to the clinic or a particular member had competing workload demands and had to reschedule patients. These expressions of frustration surprised me a little, as in the usual context of team activity I would expect that the entire team
would address these issues with the involved persons present. However, I did notice a strong emphasis on communicating concerns via e-mail or telephone.

3.5.5 Strengths and Limitations

This section discusses in section 3.5.5.1 the strengths, and in section 3.5.5.2 limitations of the study, to provide a clearer picture of the overall contribution of this work.

3.5.5.1 Strengths

I have now been involved with evaluating interprofessional team learning and leaders for a little over four years. In this time, I have presented several papers and posters on the subject. As a result of this work I have become familiar with the conceptual, methodological, theoretical and practical issues related to leading interprofessional team learning. Inevitably, my involvement in this field has also meant that I have developed a personal view of this activity. While engaged in all aspects of the research, from the initial stages to the final stages of writing this thesis, I made an effort to produce and maintain a compelling account of my research process and area of study. I have employed a range of approaches in an attempt to enhance its methodological quality.

I undertook data collection for a period of approximately one year to obtain detailed insight into the processes of leading team learning in an academic health care organization. Indeed, for me, the collection of interview, observational, and documentary data during this time has deepened my understanding of interprofessional team learning, and the role of leaders in improving the problems of collaboration (as discussed in Chapter two). I remained open to learning from the leaders and to unexpected situations to learn from the perspectives of people I
once worked with. They were willing and ready to share their thoughts with me. I iteratively read my field notes looking for emergent themes during data collection, which meant that I was immersed in the data collection and analysis phase over a period of two years to ensure that the research accounts would be focused on the potentially illuminating issues that arose during the research process.

I used a recognized approach to analyze the data (Hammersley & Atkinson, 1983, 1995), which helped ensure that the analytic process followed a clear, logical, and well-tested route. Furthermore, as discussed earlier, the triangulation of methods (interviews, observations, and documents) helped provide a more valid research account.

Hammersley & Atkinson (1995) assert that the adoption of a reflexive approach helps to ensure the trustworthiness of a research account. I attempted to use a reflexive approach in this research by describing my background and the major influences on it that I brought to this work, as well as the nature of the relationships I shared with research participants. As a result, I have developed my reflexive skills by examining my assumptions, becoming aware of my beliefs and not letting them influence my analysis. I became aware that data collection and analysis should reflect my informants’ own personal beliefs rather than my beliefs.

So that my readers could “experience the events being described” (Denzin 1989, p. 83), and to help broaden the relevance of this work, I have attempted to provide thick descriptions of the research context, by providing details on how my perspective influenced the whole research process, from the inception of the research question to the analysis and the writing-up of the results in this thesis. Thick description as described in chapter four provides a picture for the reader of being there. I hoped to provide enough information so that the reader might see how my comments could apply to them. I was also aware that how I presented the thick descriptions
could complicate issues of confidentially. While my intent was to produce a high quality, rigorous research study, this work inevitably suffers from a number of weaknesses, as follows.

3.5.5.2 Limitations

Despite my attempts to produce a high quality ethnographic study, there are inevitably a number of limitations.

First, this study only involved two interprofessional teams in an academic health care setting. These teams may not be representative of typical health care teams dealing with typical team practice challenges, therefore caution is needed applying any findings to other contexts. Second, samples of well established, stable teams are unlike many interprofessional teams in health care where there can be a higher turnover of staff (Reeves, et al., 2010) making them less stable in terms of team membership and developing as a community of practice over time. Third, the focus of this work is leaders’ experiences and perceptions. I only interviewed leaders, and while I completed informal member checking interviews during observation field work, this study missed in-depth perspectives of other team members on leadership. Fourth, given continuing reports of interprofessional friction due to power imbalances and the hierarchical organization of health care teams (Reeves, et al., 2010), I was a surprised by how little overt interprofessional friction and tension was present in the study teams. It is of course possible that I missed these in my observations of the study teams. For example, there may have been latent interprofessional friction in the teams, but I did not pick these up in field notes due to the team members presenting themselves in a positive, collaborative manner.

Nevertheless, I did observe interprofessional differences between the third loosely collected in-patient transplant team and the two well-established out-patient teams. For example, I engaged in discussions where important decisions were needed; some members focused on the
need to transfer patients to rehabilitation care to free up in-patient bed space, while other members reported specific criteria for admitting patients to rehabilitation centres, a procedure that may delay patient discharges. Some rehabilitation centres will not take patients with specific feeding tubes, so more time was needed for the patients to recover as in-patients. While agreement was obtained and care was coordinated in the end, there was some tension among these team members in trying to meet the needs of the patients and the various health care settings. Another tension point I witnessed was that in-patient team core members worked on a rotation schedule among smaller mini-teams. Some shifted roles every few months, thereby creating some instability in the team memberships. These members had to take extra time to inform the entire team when these rotations were about to occur, to ease any potential tensions. Tension involved miscommunication about pertinent information coming in a timely manner from other team members. Team members resolved this tension again through communication, discussion and agreement about how to coordinate their work in response to these rotation schedules.

In addition, although I returned a summary of the transcripts to leaders who were willing to read them, I did not seek other team members and students’ validation; this is another of the study’s limitations. This type of participant validation of the research data is a methodological technique in which the researcher feeds back elements of a study (e.g., interview transcripts, research report) to participants to provide them an opportunity to make judgments on the validity of the research (Hammersley & Atkinson 1995). I did not ask team members and students to review the data because I did not want to burden them with additional work. I felt that asking team members or students to read interview transcripts or parts of my field notes would be unrealistic and unfair, especially after they had so generously provided data for this study.
3.6 Summary

The aim of this research was to understand the experiences and interactions of leading and promoting team learning within specialized, interprofessional teams in the context of a large academic health care organization. An ethnographic approach was used to explore and examine twelve team leaders’ roles, their perceptions, meanings, and behaviours within the culture and social processes of two teams within the department of nephrology in a large academic health care organization. Data collection involved participant observations and in-depth interviews for twelve months over a two-year period. Data triangulation involved interviews with leaders from other teams in the organization and reflections on the researcher’s experiences working in an in-patient team during the data collection period. The research was also informed by the experiences of the researcher as a former member of the department of nephrology. I conducted an inductive thematic analysis from observations, reflections, and interview transcripts. Trustworthiness and authenticity are important to qualitative research and inherent to the entire process. The theoretical framework used in interpreting the data comes from an interpretivist-interactionist tradition. As a health care professional and researcher, I took the role of participant observer (Kvale, 1996). My goal as participant observer was to have minimal impact on the team cultures. My prolonged exposure minimized the effect of intrusion, influence on peoples’ behaviour or disturbance of the context. Chapter Four presents a contextual description of the teams and Chapters Five, Six, and Seven present the themes and conceptual categories that emerged from my analysis of the data.
Chapter Four:  
Contextual Influences on Interprofessional Learning Teams

4.0 Introduction

Context is the milieu through which team learning is shaped in day-to-day practice. According to Lawrence-Lightfoot and Hoffmann-Davis (1997), context refers to the:

physical, geographic, temporal, historical, cultural, aesthetic - within which the action takes place. Context becomes the framework, the reference point, the map, the ecological sphere; it is used to place people and action in time and space and as a resource for understanding what they do. (p. 41)

The two teams involved the peritoneal dialysis and the chronic kidney disease teams focused on the ambulatory care of patients, which means patients were not be admitted to hospital unless necessary and, as much as possible, care arranged by clinic appointments. These teams each consisted of members from over nine different health care professions and non-professional members, working and learning together to help manage the care of patients with kidney disease. In working and learning together, these well-established teams align with the hospital’s overall vision to be internationally recognized leaders in care. Overall, both teams had general unit goals, as ambulatory, out-patient teams which affirm similar basic values within the specific department of nephrology: to develop partnerships with patients and families in the community; to empower the patient and families to achieve maximum well being and independence; to promote an interprofessional climate of collaboration, creativity and innovation; to encourage continuous learning for patients, family members and interprofessional team members; to participate in research, resulting in continuous quality improvement; and to facilitate internal and community exchange of knowledge and experience. In order to provide a context for the experiences of the leaders, I provide a thick description of teams A and B based
on my observations. I include my thoughts about what was particularly interesting and curious in what I observed, that a casual observer in the setting might not notice. I then follow with descriptions of the research participants, leaders and others, from both teams. Finally, I summarize with thoughts about the similarities and differences between the teams.

4.1 Team A

To facilitate the care and management of patients with end-stage kidney disease requiring renal replacement therapy, the peritoneal dialysis team provides a primary care approach. By this I mean that specific team members are named the key caregivers for specific patients. Patients are assigned a nephrologist, a dialysis nurse, and a dietician who typically work together as their primary care providers within the team. I noticed that most patients are matched to the nurses who are familiar with their culture (ethnicity) or language. This match, which only involves the nurses, helps to expedite care, and allows the team to deal with possible language barriers and cultural blocks that could influence care. For example, the nurse who spoke Chinese usually had patients who also spoke Chinese. I observed that the primary care nurse coordinates services and care with non-English-speaking patients and their families on behalf of other team members who did not speak their language. I also observed that team members interact with the primary care nurse to better understand patients’ ethnic or cultural practices, when other members are not familiar with these.

4.1.1 Clinics

Within the peritoneal dialysis team, members care for patients during three weekly clinics, which are each led by one of three nephrologists. Each clinic involves ten to thirty patients seen in a three to four hour period from 8 a.m. to 12 noon or 1 p.m. to 4 p.m. Patients are
seen in private clinic rooms along two hallways of the permanent location of the peritoneal
dialysis unit. Patients are scheduled for clinic visits every four to six weeks, however, I noticed
that some patients and their families dropped in unannounced or were directed to come in for an
emergency check if they needed to see the team before their next scheduled appointment. I saw a
strong emphasis on emergency drop-ins, as the team wants to prioritize early care to prevent
infections. Patients are told to observe and communicate to the team any signs of infection.
During clinic, team members who are close by in the hallway or in the nursing station welcome
patients. Some patients seemed to know the routine of checking in by taking a number card,
writing the number next to their name on a white board, and proceeding to a waiting room. Team
members greet newer patients to the program by showing them the procedure for signing-in with
the unit. Patients usually bring with them a 24-hour collection of urine to be checked. Patients
need to have their blood drawn by a lab technician prior to being seen by the team members.
Once patients get their number, and have had their blood drawn for testing, they are called by the
primary care nurse for an initial assessment in a private room. In this team, each member has a
clinic room. Patients move from one room to the next assisted by the team members. The visit
usually begins with the primary care nurse’s initial assessment, followed by a detailed
examination by the physician and then a visit to the various clinic rooms to be seen by other team
members. For example, nurses rotate in the tube change room, and one nurse changes patients’
dialysis tubes. I saw other health care professionals approach patients if they were free in
between the nursing assessments, the physician assessment, and the tube changing. Some of
these other team members seem to have specific times to see the patients for counselling and
follow-up. I constantly saw team members huddle in the hallway or in the nursing stations to
discuss patients’ status or to discuss emergent issues. I saw team members spend time with
patients based on spur-of-the-moment referrals by other team members and for follow-up appointments based on priority concerns. Team members were constantly dealing with time issues during the clinic as some patients need more time than others with each member. For example, the chiropodist, dietitian, social worker, and physiotherapist might spend five minutes or 50 minutes, based on the needs and concerns of the patient. Therefore, the clinic involves intense time management in which team collaboration, learning, and communication seemed vital to meeting the needs and priorities of the patients during their visit. After team members’ individual consultation with patients, I observed members leaving clinic rooms to write in the patients’ charts in the nursing station. Team members not only wrote in the patients’ charts, but also took time to talk to other members about issues, in order to streamline the immediate clinic care provided. In the waiting room there are numerous educational materials including videos, handouts, and notices of program availability. For example, a Tai Chi program was offered every Wednesday morning as part of the wellness program provided to patients. Patient care clinics on three specific days during the week are ambulatory as patients are not admitted as in-patients to the hospital.

### 4.1.2 Nursing Station

Observing and shadowing team members’ interactions often required me to travel to various parts of the unit, as well as to neighbouring units. The nursing station activities take place in a central location, containing over one hundred patient care charts. Most team members and students come to this location to complete patient care documentation, to discuss emergent issues and to connect with other team members to make decisions about current care needs. In addition to the paper charts, this location has many computer terminals, allowing for direct access to the electronic patient care records. This location provides opportunities for informal
discussions and is also where all incoming and outgoing calls from patients, staff and students are handled. It is where most phone pages are made and answered, where referrals to other health care professionals and community links are made, and where staff members are notified of critical patient emergencies and reports.

The nursing station also handles daily logs and schedules, recording all the events and functions of the unit. This central location allows for the transfer of information, and there is always an in-charge nurse and support clerical staff member on duty from 8:00 a.m. to 4:00 p.m. The station is physically located in the centre of the unit and has seating accommodation for team members and trainees who may be coming and going at different times during the day. After working hours, the on-call nurse can be contacted for other high priority issues via phone pages.

4.1.3 Hallway-Team A

In every location within the unit, including the hallway, team members communicate with each other. This communication seemed pivotal to combining members’ professional clinical responsibilities into a collective clinical responsibility. Team communication involved conversations about direct patient care such as arranging for tests and procedures such as biopsies and catheter placements. Other conversations involved the sharing of personal information such as team members’ interests in sports or movies. At times, team members informally and casually transferred important information from other team members. Here information was shared for learning and teaching purposes.
4.1.4 Morning Report

A typical day with the peritoneal dialysis team begins with morning report of all primary care nurses, nurse in charge, and nurse manager. Other team members are not involved in morning report, which happens in the nurses’ office space. These other team members on the unit at 8:00 a.m. are therefore not aware of the details of the morning report discussions happening down the hall from the nursing station because they are not involved. Information shared during morning report involves issues of concern from the on-call nurse from the previous evening. The most common issue is a patient reporting the first signs of possible peritonitis, that is, infection of the peritoneal cavity. Usually after morning report, the nursing team members involved take time to have breakfast together in the unit’s lunch room. The unit’s central area is the nursing station which is a large work area with counter and desk space with computer stations.

In addition to monitoring and treating physical issues, patient care in this team also involves an initial training period for patients and their families to learn how to perform peritoneal dialysis. During the training period, patients come to the unit every day to learn about dialysis. The training period lasts one to two weeks, depending on how quickly the patient is able to learn to perform dialysis. Team members teach the patients both at the hospital as a team, and during home visits by individual team members. As a team, members work 8:00 a.m. to 4:00 p.m. daily with on-call members available to patients after 4:00 p.m. I noticed that in the team permanent space, there was a section where patients’ biographies were displayed publicly in the waiting room, as a form of recognizing the patients as people with rich backgrounds, cultures, and families.
4.2 Team B

To facilitate the care and management of patients with early kidney disease, that is, those not requiring renal replacement therapies, the chronic kidney disease coterie provides an interprofessional approach to service. This internally recognized ambulatory or outpatient care chronic kidney disease team functions within the renal management clinic of the nephrology division. The renal management clinic was started in 2000 to help chronic kidney disease patients manage medical and nutritional issues, learn about techniques and supports available for blood pressure control, diabetes management, and dialysis preparation, as well as discover and utilize social work and community interventions. It is hoped that through the chronic kidney disease team’s practices, early involvement by the members will determine clinical and biochemical predictors to provide a holistic approach to wellness and care. Although this team is located in the renal management clinic, the focus of this research, I will refer to the study team B as the chronic kidney disease team to differentiate it from other teams in this unit. Although team B specifically cares for patients with chronic kidney disease, it strives through continuous communication and collaboration, to maintain the overall health of the patient.

4.2.1 Clinics

Professional clinical responsibilities for team B involve caring for patients by ensuring that they are exposed to multiple staff and professionals with a shared vision and focus on preventing urgent dialysis starts and educating patients about preparedness for dialysis. The process of combining these professional clinical responsibilities into a collective clinical responsibility occurs through teaming. To do this teaming, members organize themselves to function cooperatively and collaboratively in providing care and service to patients. Team B does
not have a permanent space and place as does team A. Team B shares physical space during two clinics per week.

On clinic days, about twelve chronic kidney disease team members assemble themselves and the materials (e.g., charts, pens, paper) needed for providing patient care in a large ambulatory clinic space. To facilitate interprofessional team care, the chronic kidney disease team operates the clinic from 8:00 a.m. to 4:00 p.m., two days per week, and offers phone service to patients when the clinic is closed.

In the clinic, there is a large reception area with a waiting room where patients and their caregivers wait. Then a receptionist, an external staff member to the team, registers them. Patients register at the front desk, at which time the general receptionist checks the OHIP card, prints a blue hospital card, and weighs the patient. The patient goes back to the waiting room. The piece of paper with the patient’s information, including current weight, is brought over by the receptionist to the clinic secretary. The clinic secretary then marks an X on the general list on the wall white board to indicate that the patient is registered and in the waiting room. The clinic secretary then places the patient’s medical record on the desk so that team members can begin care.

4.2.2 Team Ambulatory Learning Stations

Equivalent to a typical nursing station, as seen in team A and on a typical hospital ward, is what I call a team ambulatory learning station, which is located in a small area of the ambulatory clinic space. This team ambulatory learning station is only big enough to hold a small desk, one chair, a computer, and a telephone. The clinic secretary has a computer with access to the hospital information systems at this desk, which she uses in the performance of her tasks. On the wall in the team ambulatory learning station over the desk are some shelves, and on
the other wall is a white board to display information about the patient’s whereabouts during the clinic, and for posting the general clinic list for the day. Also squeezed into the team ambulatory learning station is the mobile metal cart with the charts for each patient for that day.

In this area, all team members randomly gather at various times during the clinic to find out what is happening or spontaneously share information with other team members. Information shared sometimes leads to new knowledge and decisions, resulting in members adjusting their schedules to meet the needs of the patients. I noticed that there is no apparent hierarchy at work. Instead of the physician having priority and the other health care professionals scheduling their time with the patient around his or hers, the process seems to be that whichever team member is available will take the patient. With this process, it seemed to be of utmost importance to make clear to the other team members exactly where the patient is at every moment. The time the patient starts and ends with a particular team member is written on the white board for everyone to see.

The team ambulatory learning station seems to be the pivotal point of the clinic. There I observed team members interacting spontaneously and informally sharing information. I observed a continuous passing of both written and verbal information among team members. This pivotal spot seemed physically small for the large number of activities that happen there. This is unlike my experience with the peritoneal dialysis team A, which had an entire ward as a permanent location, with a large nursing station. Beyond this team ambulatory learning station is an entire floor with many rooms that allow team members to interact, communicate, and collaborate, described next.
4.2.3 Hallway- Team B

Much like team A’s context, the examination rooms are located along a hallway, where team members interact with each other and with the patients. Individual team members assess patients in the examination rooms. As I began observations, I was given the role of trainee by the team, and was provided a schedule to observe the various team members in their examination rooms. Although the focus of this study was to observe team member’s interactions as they spontaneously occurred, I felt that being a scheduled team member offered a unique opportunity for understanding the nature of team learning. I went along with the plans to observe from the schedule, in effect, immersing myself in the field and allowing team members to become comfortable with me. On one occasion, I observed the nurse coordinator and the chiropodist’s interactions in an examination room. The chiropodist came in to share information with the nurse relating to a patient’s readiness for dialysis. I did not hear all the details, but the nurse appeared pleased to get this information and did not seem to mind being interrupted. Both nurse and chiropodist seemed to agree on a decision, as they smiled and looked pleased. The chiropodist left the room with an acknowledgement that she was to move forward with the plan.

I also noticed from my time in the examination room that team members had a collective knowledge about each other’s role within the team. I observed a team member being asked about what another team member (the pharmacist) wrote on a prescription relating to the medication, Allopurinol. The nurse was able to explain what Allopurinol is and why the team recommended it. The nurse further suggested that the role of the pharmacist is to provide education about medications for people with failing kidneys. The examination rooms are used for teaching events with trainees and students while maintaining confidentiality and honouring the patients’ privacy.
At times trainees and fellows engage in direct patient examination for learning purposes, followed by detailed discussions with their preceptors and team members.

4.2.4 Renal Education Room

The *renal education room* is located at the far end of the clinic hallway. In this education room, there are books, videos, information binders, computer programs, digital camera, laptop, TV and DVDs. The education room is also called the “learning centre”. This education room/learning centre also has resources and information about various support and community groups that are available to patients. I noticed invitations to seminars and workshops put on by a seniors’ centre posted on the wall. Patients and caregivers are offered the opportunity to learn about treatment options and how they work in a self-directed learning format. Information is available in a number of languages. The representative from the Kidney Foundation spends most of her time in this location.

4.2.5 Team Huddle Room

Next to the team ambulatory learning station, there is a conference room, the “team huddle room”, with a large table, computer, phone, and six or seven chairs that nephrologists, fellows, residents and other team members frequent to have brief conversations. I call this conference room the “team huddle room” since team members seem to huddle to share information that is relevant to the team practice and learning. Often in this room there are snacks left by patients or team members to share with others. This team huddle room is a space for conversations about follow-up and discharge plans, and for clarifying issues, sharing information, and making quick team decisions. For example, on one occasion, I saw a huddle
involving a social worker and nurse. The social worker provided the nurse with information about trying to contact a patient and was told that the patient had gone to China. I did not hear details of the conversation because of patient confidentiality; however, I could tell that this social worker’s information was important to the team in determining intervention.

Generally, during a clinic, team members constantly move from one place to the next, communicating and discussing issues around providing direct care and around the process of providing team care. I noticed that teaming involved team members remaining flexible, supportive, respectful, and caring towards each other and the process of providing care. On one occasion, the entire team adjusted the work schedule to begin earlier, upon the request of a team member who had to leave early that day.

In caring for patients with kidney disease, this chronic kidney disease team provides prevention, health promotion, education, emotional support, and counselling to support the patients. During clinics, high-functioning professionals perform and share responsibilities and knowledge with the rest of the team. Through this sharing of information by multiple professionals in direct contact with patients, decisions are made about the care provided.

4.3 Description of Team B Events That Were Not Seen in Team A

What I observed in team B that I did not observe in team A was the interactions of four core team members in a permanent cubicle office setting. The four core team members included two renal coordinators, the clinic secretary, and a clerical staff member, all interacting, receiving, sharing, and transferring information to plan activities of the chronic kidney disease team. In the office cubicle setting, core team members shared office space. Each has a desk, computer, telephone, and personal effects (such as awards, photos, poems, and travel artifacts) in a divided
but open space. In this location are many filing cabinets with patients’ records, a photocopy machine, and a fax machine. Members use an access code to get into the cubicle site. I also noticed a visitor’s cubicle space with a desk reserved for trainees, students, and fellows, as well as other team members who might visit the cubicle location and who need to work for a short time away from their usual offices. I observed these four team members responding to calls from patients with acute, chronic medical or chronic kidney disease problems that could not wait until their next scheduled clinic day. The daily work in this area is centered on the groundwork for patients’ care and the background preparation for team clinics.

In planning for patient care, the clinic secretary prepares patient records and charts for all new patients entering the clinic. The clinic secretary also saves, updates and sometimes prepares computer files and programs such as discharge planning reports, census data, and Kidney Foundation information. At times, the clinic clerk and the nurse coordinators have transplant and dialysis units’ updates and are organized to share this with other team members. These four core team members liaise with the other team members via telephone, e-mail, written memos, morning reports, and patients’ medical records. These team members also communicate via fax with other chronic kidney disease teams and nephrology units.

The two nurse coordinators from the chronic kidney disease team clinic are also the renal coordinators of the renal management clinic. These two renal coordinators engage in activities such as monitoring, planning, and coordinating the movement of patients through the various units and teams, including discharge and plan for care within the division of nephrology and other units. They are involved in the overall renal management clinic and with the other chronic kidney disease teams. In their renal coordinator roles, they are managing and maintaining a database on patients and on the progression of kidney disease, paying attention to acute concerns
such as kidney transplant rejections, dialysis complications, transfers of patients, and unforeseen deaths.

During each observation period of the cubicle area, I noticed that the role of this core team seemed to be continuously evolving and emerging, in addressing the changing needs of the entire chronic kidney disease team. I observed spontaneous “post-clinic process debriefs” conducted to assess the overall day-to-day activities of the clinics by the cubicle team members, nurse coordinators and clinic secretary. Items discussed included issues about workload among the team members—for example, the high demand for a team member who was part-time with the team. Team debrief by the core cubicle team does not involve decision-making; it is an opportunity to raise issues in a safe environment that might be addressed later at a larger team meeting, or individually with members concerned. Core team members also engage in team meetings one to two days per week and in non-clinic work hours to plan and organize care.

**4.4 Description of Common Team A and B Events**

The variety of roles performed by the members of both teams allows them to care for patients by engaging in common language and activities that are common to both teams. The teams are always moving beyond the norms of everyday clinic work with patients. There is constant activity, quality and research initiatives, and outcome measure activities through various team events. Non-clinic team activities were engaged in by each team within the context of specialized patient care, including formal team meetings, education team rounds, and continuous quality team meetings.
4.4.1 Formal Patient Care Team Meetings

The goal of both the peritoneal dialysis team and the chronic kidney disease team is that the members work with patients and their caregivers as a collective to set patient-centered goals and achieve expected results. This is done by developing a comprehensive and coordinated plan as directed within the department of nephrology for each patient. This plan is the care or treatment plan and it is hoped that this plan will be managed across a continuum of caring to ensure that both patients and team members’ needs are met and potential gaps in team practice are identified and eliminated.

At patient care meetings, also called patient care rounds, only team members involved as primary care providers gather in the conference room, once a week, to discuss the outcome of assessment and intervention with the patients seen in the clinic that week. During patient care meetings, it seemed as if each team member brought to the table specific knowledge about the patient from his or her professional perspective. In both teams similar sharing of information among team members was observed. Taken from observation with team B, on one occasion the nurse commented that a patient’s family reported that the patient was not motivated to get up each morning to go to work. The dietitian was able to comment on the high level of protein that the patient was having that could be contributing to the patient’s lack of motivation to work. The dietitian explained:

High protein intake could aggravate uremic symptoms, which could contribute to the lack of motivation. (Field notes, team B)

Following this, the pharmacist added to the discussion information about medications the patient was taking that had the potential to cause depression, which might be playing a role in this patient’s lack of motivation. The social worker then added that the patient had shared with her
that he had been laid off from his job so he had no work, and therefore no motivation to do anything and was not ready to let the family know. The patient care meeting follows a format whereby each team member shares information about issues regarding each patient in turn. Care plans are often refined in these meetings based on the latest evidence and team members share knowledge and create team language, from interaction with patients and discussion with each other. Usually the physician or fellow (team B) or the nurse (team A) provides a brief report first; followed by other health professionals, all of whom may have information to share that is helpful to the team. Often different team members take the lead in planning the follow-up care for the patient. As a team leader noted in her interview:

The team members would come around the table to consider a patient. And you would make a plan as a group, but you needed to move that plan forward, and it was kind of rotating who was the lead because of their involvement with the patient. Moreover, it might not be the nurse. It might be the social worker. ... It might even be the physiotherapist or the occupational therapist who would take the lead. (Transcripts, team B leader)

Overall, the type of information shared not only includes results of tests, assessment from care plans, and suggestions for changes, but also information derived from team members’ interactions with patients. This type of sharing provides team members with information that might challenge preconceived professional notions about optimal care, and instead identify care based on the individual patient’s needs. This habit of continuously sharing information over time seemed to make it possible for the team to make timely decisions. For example, having face-to-face conversations is faster than waiting to get a response to a page. Sharing of information leads to team decisions, such as a team assessment that it’s time for an early referral to a dialysis unit for the patient, which provides improved quality of life for the patient and cost-effective
nephrology health care. Sharing of information can also lead to team decisions that do not resonate with evidence-based studies, (such as delaying the start of dialysis), but do support patients’ choices. Patient care team meetings provide one route to enable team learning while focusing on patient care.

During team meetings, there are informal conversations about team members’ personal lives, about the process of the team clinic and care, and about random topics such as current or past events. The patient care meetings observed were conversational in nature and felt like caring members having a discussion and making decisions with the interests of the patients at heart. Team meetings, in my opinion, provide the space and place to make team decisions based on the collective pooling of information from individual health care professionals. Information shared is often based on team members’ knowledge, intuition, beliefs, impressions, and speculations. Patient care meetings involve six to eight members and last one to two hours.

4.4.2 Education Team Rounds

Education team rounds or meetings involved both team A and B as well as other members of the renal management clinic and the department of nephrology. Although most teams at this academic health care organization are not expected to do research, all teams are expected to make members aware of what is happening in the field. Education team rounds provide an opportunity for members to learn from each other and with each other about clinical practice guidelines, evidence-based practices, current research, and current trends in the field of nephrology. On any given day, fifteen to twenty-five members may be present, including students, all program nephrologists, all dietitians, all social workers, and so on. The format of the education rounds involves members volunteering to present a topic of interest and signing up for a date to present. The sign-up list is then circulated to all team members. Education rounds are
routinely held once per week at the same time and place in a large conference room. Drug companies usually sponsor lunch at education rounds. These drug companies also help to fund research and learning events for the division of nephrology. Education team rounds focus on the team members learning and discussing issues related to kidney disease. For example, I observed presentations and discussions regarding cardiovascular disease that involved team members from all professions sharing ideas and knowledge with each other. In this way, the teams through education rounds can create new knowledge about best practice. Education team rounds also provide an opportunity for team members to discuss research activities that they are undertaking, involving both formal academic studies and in-house informal studies.

4.4.3 Continuous Quality Team Meetings

Continuous quality team meetings are meetings to discuss, review, establish, and adopt best practice guidelines. Unlike education rounds where knowledge is shared, continuous quality team meetings involved using the information to create formal improvement strategies and to develop formal approaches that focus on process of establishing best practice guidelines. In health care, the best practice guidelines need to be based on evidence and research studies. Best practice guidelines are established by the team members and in consultation with other practitioners within the division of nephrology. Team members are encouraged to make recommendations and to develop tools and processes that may be innovative and are helpful to day-to-day practice. Within the division of nephrology, teams are given the flexibility to create the processes, within general guidelines of the division, by which they function. Both teams foster and support creativity and innovation, as evidenced by their many publications and presentations that contribute to best practice guidelines for the global kidney disease community. Further, quality care meetings involve an interprofessional, integrated approach, with the
expectation that team members will develop, describe, and record their team goals and expected outcomes, as well as the roles and responsibilities of the team and other providers, including other organizations, such as the Kidney Foundation of Canada, patients, and their families. For example, both teams developed process guidelines such as where and how frequently services are provided, the time for starting and ending services, and how goals and expected outcomes are monitored. In caring for patients with kidney disease, the teams outline the transition or follow-up care needed once patients leave the organization. According to Watson and Kelman (2008), “quality improvement, managing risk and managing utilization of services are critical to improving the overall quality of services. [Areas] that both teams monitor are anemia management, phosphate management, patient satisfaction surveys and medication errors” (p. 17).

Additionally, all aspects of change in practice are presented to the teams for discussion and review in ad hoc formal team meetings. This involves various company representatives presenting their equipment and products. For example, when team A was considering the introduction of a new dialysis system to evaluate benefits for patients that needed overnight dialysis, input from all team members was solicited before the team made a decision.

4.5 Description of Research Participants:
Who Are the Leaders?

The nominated team leaders in this study came primarily from medical and nursing backgrounds and were involved in providing direct patient care, student and team mentoring, research, and administrative duties. In providing patient care, leaders were involved in their clinical programs on the front lines, providing day-to-day direct care to patients. Most leaders
appeared to balance their various professional clinical responsibilities to patients with their various responsibilities to the team and to the organization and community. One leader described her role as also including coordinating activities. Taken from the transcripts is the following statement:

   I have been in the role about fifteen years now. I have a long thirty-year background in nephrology. I have done a variety of roles. However, this particular role represents an amalgam of all my other roles. It is a role that is partly coordinating. (Transcripts, team A)

   Many team leaders play a part in the teaching and mentoring mandate of educating student health care professionals. Leaders take the time to share information, respond to questions, and have students shadow them while they are engaged in their day-to-day activities. In addition, leaders provide feedback to team members who are facilitating and mentoring students, interns, foreign learners, and fellows on an informal regular basis.

   Team leaders are also involved in establishing team opportunities for staff and colleagues to learn in the form of research days, continuing education sessions, in-services, trainer training, and annual retreats. Some leaders are also involved in the e-learning initiative for colleagues and other team members. As illustrated in interview transcripts (Transcripts, team B leader):

   And I am going to spend a fair amount of energy trying to support people in the e-learning process. I take the lead, play a mentoring role but also take others along for the ride.

   As is appropriate in an academic health care organization, leaders play a role in the research mandate of the hospital. In addition to some leaders being involved in research in their area of expertise as principal investigators, many leaders are involved in collaborating with other
team members, as well as with national and international scholars. Some leaders are recognized as international leaders in their specialty. Many are responsible for publications and presentations that have contributed to the establishment of best practice guidelines for their programs.

Of interest to this study, all leaders who participated in the study were involved in providing a clinical, scientific approach to caring for patients. Team leaders were involved in their clinical programs on the front lines, providing day-to-day direct care to patients as an aspect of their role in the team.

In addition to clinical research activities, leaders are also involved in team projects such as patient satisfaction surveys and conducting preliminary studies to evaluate team interventions that are not mandated by the organization. Team leaders seem to enable team members to develop monitoring measures to assess team performance. All ideas for change are discussed in team meetings.

Finally, the leaders in the study were also engaged in some form of administrative duty in service to the team and/or in service to the organization. For example, some leaders were involved in local team projects such as scheduling, monitoring measures to assess team performance, and human resource planning with the team. They are also engaged in organizational projects such as accreditation, patient satisfaction surveys, and employee satisfaction surveys. One leader said to me in an interview:

I took this role on last year. So that is helping the entire department to look at the quality initiatives and trying to bring them together. This year, of course, there is the accreditation. (Transcripts, team B leader)
Although some team leaders in this study also hold formal organizational positions such as director and manager, other informal team leaders seen in this study were educators, coordinators, practice leaders, and research coordinators. Many expressed gratitude at being recognized by their peers. As one leader said: “I don’t really see myself as a leader; however, I am honoured that my colleagues see me as a role model to the team” (Transcripts, team A leader). Another leader said: “I never thought of myself as a leader” (Transcripts, team B leader).

4.6 Description of Research Participants: Who Are the Team Members?

Teams A and B were chosen for their unusual articulation of team and their explicit inclusion of non-traditional team members. These teams include professional health care workers, volunteers, patients, drug and equipment company representatives, researchers, staff, students, trainees, and representatives from the community, for example the Kidney Foundation. The following groups of team members are involved in the day-to-day interactions of both team A and team B. The membership composition of the teams is slightly different, as each is tailored to fit the needs of its patient population. To remain relevant, services and the composition of the team are adjusted as the population or best practice guidelines change. Team B shows a greater tendency to make changes than does team A. For example, most professionals who once practiced as consultants to the team have moved away from this role to interact, reflect and communicate as experts with the team as practitioners on a daily basis.

4.6.1 Interprofessional and Staff Health Care Workers

In team A, a nurse manager together with a rotating nurse in charge, coordinate and manage the other eight nurse members and clerical staff needed for patient care. Some of their
activities include scheduling staff and planning for the nursing and clerical staff in the team. Team A’s nurse manager also works closely with other peritoneal dialysis units in the local community to develop standardized policies and procedures for peritoneal dialysis. The nurse manager also engages in on-going planning with a partner organization in another area of the city, caring for elderly peritoneal dialysis patients, a sub-specialization of this team. Finally, this manager is responsible for the nursing care of any peritoneal dialysis patients admitted as in-patients to the academic health care organization.

In team B, nurse coordinators are coordinators of the entire renal management unit as well as the chronic kidney disease team B. In addition, as primary care providers, these nurse coordinators assign themselves patients whom they educate about issues related to kidney disease and treatment options, such as dialysis and transplant. The nurse coordinators are in constant communication with other team members, for example, about the timing of access placement for patients in need of dialysis and the planning and scheduling of dialysis access. These professionals are at the centre of sharing and transferring information, and making decisions with team members on an ongoing basis. In both teams, a nurse educator is available as a training specialist for new nurses wishing to learn about nephrology care. All nursing professionals have been certified as nephrology nurses.

In team B, another key team member, the clinic secretary, supports the nurse coordinators in their daily tasks with the team. Because team B operates clinics in a shared space, I observed the clinic secretary perform different functions from those of the ward clerk in team A. The ward clerk in team A is the central person who welcomes members and patients to the unit, answers the phone and directs calls to the appropriate persons. This member also assists
with booking clinic appointments and providing general information to anyone who needs it. The ward clerk in team A seemed to help transfer information among team members.

In contrast, the clinic secretary in team B wheels a mobile cart with the patient’s records and all relevant information to a desk at the start of each clinic day. She arranges the patients’ charts so that the team members can easily access them in order according to the patients’ appointment times. The clinic secretary places tracking stickers on the charts to help improve communication and collaboration. I saw this person continuously remind team members to put their initials on the tracking stickers upon completion of their assessments and interventions. Although the nurse coordinators have overall responsibility for patient records, the clinic secretary manages the records and patient information on a day-to-day basis for the team.

In both teams A and B, the clinic secretary and ward clerk, respectively, compile the daily census of patients and post a master list with the names on a bulletin board. This master list has the appointment times for each patient with blank columns to record when each team member took the patient and when they finished with the patent. This master list is intended to make the flow of the patients through the various team members transparent. Both the ward clerk in team A and the clinic secretary in team B transfer information about what is actually happening in real time. For example, these central team members often know taken-for-granted information such as when lunch breaks are, if a team member had to leave the clinic for a medical or clinical crisis, etc.

In addition, during the clinic, the clinic secretary and ward clerk assist team members by copying information such as laboratory results and height and weight of patients onto their medical records. The clinic secretary and ward clerk answer the telephone and direct calls to other health professionals and patients or relay messages when appropriate. They distribute
relevant information and are available to guide members and patients of the clinic. They prepare 
requisition forms for laboratory tests, drug coverage, and supplies for the unit. The clinic 
secretary and ward clerk also arrange for the transfer of patients to other teams within the 
division of nephrology and other units in the organization. They arrange the transfer of the 
team’s information if patients are admitted to other hospitals or emergency rooms. The clinic 
secretary and ward clerk help team members to process forms for community homecare referral 
and other community care services. Although they are primary members of the team during the 
clinics, they are not considered primary care members of the teams during patient care team 
meetings, and they do not participate in these patient care meetings. The clinic secretary and 
ward clerk are clearly pivotal in managing and directing the flow of information and 
communication. This is especially true for team B, which does not have a permanent space of its 
own. In Team A, three ward clerks manage the day-to-day transfer of information in their well-
established, permanent nursing station.

Generally, nephrologists in this large academic health care organization are recognized 
as international leaders in their specialties. They are responsible for many publications and 
presentations that have contributed to the establishment of best practice guidelines for the global 
nephrology community. For example, two leading nephrologists from team A contributed to the 
Canadian Society of Nephrology Guidelines for dialysis care. Team A nephrologists were also 
founding members of a city-wide community of practice interest group.

The nephrologists in both teams see patients by referral from family physicians and other 
health professionals. Initial examinations of patients are completed in the nephrologists’ private 
offices, after which patients are referred for ongoing management and care. Therefore, in team B, 
the referral for an initial workup of kidney disease occurs before patients are referred to the renal
management clinic, based on acuity of illness, such as symptom management, creatinine level, and kidney function. Once patients are accepted to the chronic kidney disease team for management of their kidney disease, nephrologists see them regularly. Initial dictated assessment notes are sent to the patient’s family physician electronically within two to three weeks. Nephrologists then see the patients every four to six weeks based on the acuity of symptoms and management of kidney function. In team A, when a patient’s kidneys are no longer working, they are referred to the nephrologist specializing in dialysis, such as peritoneal dialysis. A dialysis nephrologist assesses patients in their office followed by a referral to the rest of the team for assessment and training. Specific fellows, nurses and residents work with specific nephrologists at each clinic.

Clinics are scheduled to accommodate ten different nephrologists (team B) and three different nephrologists (team A) and are centered on the care of patients by specific nephrologists. For example, Monday afternoons are for nephrologist A, Tuesday mornings are for nephrologist B, Tuesday afternoons are for nephrologist C, and so on. The nephrologist is considered a primary care member of the team, and in some cases is the organizational leader of the team.

In team B, the pharmacist is assigned to specific nephrologists and is available during clinic times to collaborate with team members and patients. The pharmacist reviews drug regimens and counsels patients and their families about the use of medications, about Ontario drug coverage, about resources to help with access to medications in the community, and other issues related to medications specific to nephrology. In team B, the pharmacists provide important information relevant to care such as information about poly-pharmacy, drug-nutrient interactions, use of medications with other related diseases, and the progression of kidney
disease. The pharmacist is considered a primary care member of the team; however, while team A has access to a pharmacist, he does not interact daily with the rest of the team.

In team A, two dietitians in the peritoneal dialysis team assess and care for patients. In team B, one dietitian in this chronic kidney disease team assesses and cares for the patients’ nutritional concerns during a clinic. The dietitian is seen as the knowledge expert for dealing with specific nutrients in this patient population. This professional focuses on preventing malnutrition, treating hyperkalemia, hyperphosphatena, life-threatening fluid overload, exacerbation of metabolic acidosis, and other macro and micro nutritional concerns. The dietitian educates her fellow team members about the patient’s nutritional status and about nutrient interactions with medications that may influence team decisions. Team decisions are made about preventing malnutrition and identifying risks for developing malnutrition such as constipation, diarrhea, loss of appetite, and meat aversions. In this team, the dietitian also engages in collaborative research with other members of the nephrology community. The dietitian is considered a primary care member of the team and s/he interacts daily with the other members.

The four social workers on team B provide patients and their families with education and counselling regarding dealing with chronic kidney disease, adjusting to changes, learning about treatment, and helping patients make informed decisions. The social worker is in constant contact with patients and deals with family concerns, including locating and arranging resources for the patients to manage their health concerns and find social support. Many patients with kidney disease undergo lifestyle changes, such as loss of employment, and emotional changes, such as depression. The social worker contributes to the team by gathering and sharing information about important issues relevant to providing resources and facilitating a team-based approach to patient care. In the chronic kidney disease patient population, a recommendation to
begin dialysis can come suddenly, especially for elderly patients, therefore it is important for the team to know about possible ramifications with respect to issues of social isolation and depression. The social worker’s involvement with the team is very important to the team decisions. This person shares information about chronic care facilities, rehabilitation services, government agencies, and community partners within the community care access centres. The social worker is considered a primary care member of the team; however, while team A had access to a social worker, she did not interact daily with the rest of the team. Instead, I observed the nursing members involved in addressing some of the social issues with patients in an ongoing, routine way.

The physiotherapist in the team is available, upon referral, to assess patients for rehabilitation and to determine future care and planning for both team A and B. I did not observe the physiotherapist acting as a routine member of the team in the clinics. I know that she saw patients from the chronic kidney disease and peritoneal dialysis clinics, on a consultative basis, in her specialized therapy rooms in the hospital, and that she interacted with team members through written and verbal reports. In theory, the physiotherapist is considered a primary care member of the team; however, I did not regard the physiotherapist as a regular team member.

A chiropodist is available to meet with patients to assist with the care of their feet during clinics with both team A and B. Kidney disease patients with diabetes are at risk for foot problems and need assessment of the feet as a preventative measure. The chiropodist also accepts referrals for patients who are experiencing foot problems (e.g., pain, calluses, bunions, sores). The chiropodist is a primary care member of the team; however, I observed her interactions in team A and saw minimal interaction between the chiropodist and other team B members, as she was not always in attendance during team B clinics, but was at team meetings.
4.6.2 Non-Traditional Team Members

Clinical researchers are also part of the clinic. The chronic kidney disease team is involved in many research projects that include both formal academic studies and in-house informal studies. There were three research studies underway during my observations, including a bone density-vibration study and a chronic kidney disease nutritional study. All research projects follow organizational policies, codes of conducts, and the terms set out by the research ethics board. The researchers are only to interact with the patients if it does not interfere with the flow of the clinic and direct patient care. Although clinical researchers are present in the chronic kidney disease clinic and they are involved in sharing information with and receiving it from team members, they are not primary care members of the team.

For this study, I classified the many kinds of health care professionals being trained in this chronic kidney disease team as clinical trainees in the following five categories (Chatalalsingh, 2007). The first category comprises doctors or “fellows” in nephrology who have completed their medical degrees and have usually completed full training in internal medicine. In the second category are nurses and allied health professionals who are newly qualified specialists who come from other nephrology units within the community. The third category includes postgraduate students who are doing internships and practical training. The fourth category comprises undergraduate students who require some exposure to and a minimal development of skills in nephrology. The fifth category is visiting scholars who are fully trained specialists in their home country, and have come to Canada to experience North American health care practices. The team facilitates the mentoring and training of students, residents, and fellows. Trainees usually review issues brought up by patients with their primary mentor and discuss them at the team meetings. At any given point, there are approximately two to six clinical
trainees or learners. They are not primary care members of the team, although they attend patient care team meetings and are involved in the care of patients under the supervision of primary care members.

A Kidney Foundation representative is on hand at the clinic. She spends most of her time in a room called the Renal Education Room. Here the Kidney Foundation representative interacts with patients, residents, fellows, and other team members. She provides information about the Kidney Foundation of Canada and is a valuable knowledge expert about research, and she provides information about community links to the program, for example, nursing homes, chronic care facilities, and regional dialysis information. The Kidney Foundation is a volunteer organization that provides support and resources about kidney disease. According to Bhesania and Shay (2008):

For over 40 years, The Kidney Foundation of Canada has proven its commitment to people affected by kidney disease by providing the best support and resources available. Some of the Foundation’s core services include information and referral, short-term financial assistance, educational material and peer support. (p. 4)

Although the Kidney Foundation representative is a valuable member of the chronic kidney disease clinic, she is not considered a primary care member of the team.

One data entry information specialist is responsible for entering specific patient information into a chronic kidney disease nephrology database and on-line computer portal program. She is responsible for educating team members and patients about the information technologies available to them. This information specialist registers patients who are interested in using the internet portal system for accessing personal health information on-line from their homes. Although the data entry information specialist is a valuable member of the chronic
kidney disease clinic, she is not considered a primary care member of the team. Table 2, provides a description of research participants and team members over the course of this study.

Although the team members are the focus of this study, the team would not exist without the approximately three hundred and seventy five patients cared for in team B and approximately two hundred and fifty patients from team A. The patients are at the centre of the team and integral to an understanding of the nature of the team learning that is occurring among these health professionals.

The largest language groups of the patients and their caregivers are English, Chinese, Spanish, Tagalog, and Portuguese. At times professional staff interpreters make up part of the team. On one occasion, I observed:

A professional interpreter arrives as pre-booked to see the pharmacist. The nurse takes the patient, family member interpreter and professional interpreter to the pharmacist’s office. I notice a smooth transition from team member to team member with the interpreters. (Field notes, team B)

Patients seen by this team during clinics are considered to be in the late stages of chronic kidney disease. When the level of kidney function reaches less than 15%, this is called “end-stage kidney disease”. End-stage kidney disease results in a build-up of fluids and chemical wastes in the body, and is life-threatening unless treated by dialysis or kidney transplantation. The chronic kidney disease team, as an entity, focuses on patient assessment, including management of blood chemistry, haematological imbalances, and symptom control to manage the patient’s chronic kidney disease and to help patients to slow progression to end-stage kidney disease. On one typical clinic day, I observed that there were ten patients scheduled for the
morning and thirteen for the afternoon. The schedule included five patients at 9:00 a.m., five at 10:00 a.m., five at 1:00 p.m., five at 2:00 p.m., and two at 3:00 p.m.

<table>
<thead>
<tr>
<th>Team A members</th>
<th>Team B members</th>
<th>Team A and B leaders interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>three nephrologists</td>
<td>ten nephrologists</td>
<td>five physicians (two males and three females)</td>
</tr>
<tr>
<td>eight nurses</td>
<td>two nurse coordinators</td>
<td>seven nurses- all ranks represented (all females)</td>
</tr>
<tr>
<td>one nurse educator</td>
<td>three nurse practitioners</td>
<td></td>
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<tr>
<td>two dietitians</td>
<td>one dietitian</td>
<td></td>
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<tr>
<td>one occasional pharmacist</td>
<td>two pharmacists</td>
<td></td>
</tr>
<tr>
<td>one chiropodist</td>
<td>one occasional chiropodist</td>
<td></td>
</tr>
<tr>
<td>three ward clerks</td>
<td>one ward/clinic secretary</td>
<td></td>
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<tr>
<td>one nurse manager</td>
<td>three clinical researchers</td>
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<tr>
<td>two volunteers</td>
<td>two volunteers</td>
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<tr>
<td>Team A members</td>
<td>Team B members</td>
<td>Team A and B leaders interviewed</td>
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<tr>
<td>one data entry clerk</td>
<td>data entry information specialist</td>
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<tr>
<td>drug and equipment company representatives</td>
<td>one Kidney Foundation representative</td>
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<tr>
<td>one occasional physiotherapist</td>
<td>one occasional physiotherapist</td>
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<td>one lab technician</td>
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<tr>
<td>one occasional social worker</td>
<td>four social worker</td>
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<tr>
<td>twenty clinical trainees, students, interns, fellows,</td>
<td>twelve clinical trainees, fellows, students, and</td>
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<td>and visiting scholars from medicine, nursing,</td>
<td>trainees</td>
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<tr>
<td>nutrition, and social work</td>
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<tr>
<td>two-four volunteers</td>
<td>two-four volunteers, occasional language translators</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Description of research participants over the course of this study
4.7 What I observed that the casual observer in the setting might not know

While the two research teams are similar in their tasks, vision, and interprofessional approach to caring for patients, several differences have been noted in the way each team has evolved. Team A is the more stable with many long-term team members that developed the team, and began when nephrology care and practice was new and emerging in health care. The team came together over 25 years ago with two committed nephrologists and other team members. Over the years new members have been added. The team works in a permanent, designated space within the academic health care organization, and has grown to be one of the largest peritoneal dialysis units in the world. Some team members are pioneers in the field of peritoneal dialysis, defining practice guidelines, standards of care and other benchmarks in caring for patients. Members accommodate patients by inviting them to call in or drop by if they have concerns that do not require an emergency room visit. As previously noted, this team has a permanent location, which makes it easy for people to drop by to visit. Members of team A are well-established - most members have been practising nephrology as staff and health care professionals in an academic setting for an average of fourteen years each.

Team B, on the other hand, is also stable but newer; they had been together approximately ten years at the time of this study. This team had more nephrologists and members come together as well-known experienced professionals from various areas of nephrology to practice together as a team. Members of team B assemble to provide care as a team in a shared clinic space which is not a permanent space for team B; other teams in the organization hold various clinics at different times during the week in the space. To accommodate this challenge, the team maintains communication through the use of technology. Decisions are made in smaller teams with core members and then shared with the entire team.
Both teams were initially formed by health care professionals around particular areas of interest, and were later joined by other team members who were chosen as knowledge experts in specific areas to complement each other. These teams evolved established relationships over time by remaining flexible to change, by responding to the needs of the patients, and because of their organization style. The teams created their own structures through shared leadership among the group members. Team-building was a priority, as evidenced by the weekly meetings to review practice, care, and successes as well as providing an occasion for team members to socialize. The focus on the team context is important, as leaders from both teams expressed their ideas about leading team learning within that context. I was thus able to compare and contrast day-to-day conversations, actions, and interactions of members in the two well-established teams in this complex academic health care network.

Many team A and team B members were involved at the outset in the strategic planning stages and evolved with the team through its various phases of development. Both teams care for patients dealing with chronic illness; both strive to maintain the overall health of the patient by using a “wellness” model to emphasize health promotion. If I were to conduct another full study in these settings, I might focus on team members’ interactions from the perspectives of the patients as well as on the team leaders’ interactions with each other. In working with the data, I returned to the three guiding objectives that frame this research: to examine the relationships, perceptions and experiences of team members identified as leaders of team learning: to explore the role of conversations and the value of knowledge in shaping the interprofessional team learning agenda on a day-to-day basis: and to explore how leaders, members and trainees learn to function within the organizational context of an academic health care institution.
General concepts, which I now raise in relation to these questions, include the concept of team leading as a process in practice on a daily basis through an awareness of leading, enabling team learning, and enacting the creation of collective knowledge.

These teams and their leaders generate a goal to focus its processes and tasks to engage members’ passion, mindfulness and a sense of commitment towards the success of the team. Leaders role-model confidence, trust, respect, and a desire to learn and teach, and use individual values to co-create team values within the structure of a hierarchical organization. In the next three chapters, I discuss my findings. The research findings resulted in the emergence of three broad themes that reflect the ethnography of leading team learning: perceptions and experiences of leading team learning; enacting the creation of collective team knowledge; and enablers of team learning. These themes are not isolated, but rather are dynamic and interconnected, and represent the learning and functioning of two established, stable interprofessional health care teams. Chapter Five focuses on the theme of the perceptions and experiences of leading team learning. The other two broad themes will be discussed in Chapter Six, enacting the creation of collective team knowledge and Chapter Seven, enablers of team learning.
Chapter Five:  
Perceptions and Experiences of Leading Team Learning

5.0 Introduction

In this chapter, I present the first broad theme that emerged from the data. I wanted to gain a better understanding of how team leaders organized their worlds and to understand their thinking styles, frames of reference, and experiences as leaders of team learning. The first broad theme that emerged from this study is *perceptions and experiences of leading team learning*, which refers to all leaders’ perceptions of and insights about themselves, and about other team members in leading team learning. In their interviews, the leaders from both team A and team B talked about becoming aware of their ability to pay attention to their own attitudes, while seeing a problem or a solution in a team-oriented way. The observation data indicate that skills developed in relationships outside of the work context are important in building leaders’ perceptions and experiences. Within this theme, two sub-themes emerged: leaders’ understanding of self and leaders’ understanding of others. Each has important and distinct qualities.

5.1 Understanding of Self

The sub-theme of *understanding of self* emerged as an element that had meaning for most of the leaders, and recorded in my observations are examples of team leaders’ interactions and visible emotions attached to the interactions reflecting this theme. By visible emotions, I mean excitement and tension that leaders displayed in response to direct and indirect involvement with team members. This form of *understanding of self* surfaced in two ways: as team leaders’
awareness of the personal values guiding their actions, and as their awareness of gaining confidence to lead. Each is discussed below.

5.1.1 Team Leaders Engaged in Self-Awareness: Personal Values Guiding Actions

Leaders revealed a deep understanding of themselves by showing awareness of how they fit into in an interprofessional team. For example, one of the leaders from team A in her interview stated, “I think that you have to want to know yourself and know that you want to do a good job first” (Transcripts, team A leader). All the leaders in both teams placed a strong emphasis on continuously examining their actions and interactions with team members in order to understand themselves and in turn understand their interactions. This was done with a view to improving in their role as a team leader. All of the leaders talked about being conscious of the personal values derived from their upbringing, values they saw as guiding their interactions and actions. My observations indicate that such personal values as trusting others, being open, and being willing to learn from others guided team leaders’ actions on a day-to-day basis.

5.1.1.1 Value of developing trust.

Leaders in both teams spoke about a form of letting go. By letting go, some leaders in organizational positions noted that they freed themselves of preconceived ideas, such as the idea that they need to know everything about the care the patients require. Letting go thereby encouraged leaders to delegate or direct others less, and in turn support and trust others more. Team leaders see trust as something that supports a sense of teamwork and cooperation. As one leader in team A said:

You have to let go and trust others. Trusting instils a sense of teamwork and cooperation. I have to give trust to earn trust ... it takes time to do this but soon people start to see it and feel it. (Transcripts, team A leader)
Trusting others not only allowed the leaders in this study to attach importance to input from members of their team, but also fostered a supportive leadership style that allowed members to feel valued in the interprofessional team:

I am not the dietitian or the social worker or the pharmacist and I cannot do my job without the expertise of the other very important team members. I value input from every member, even the students. In a sense, these various members belong ... together ... so that we could use each others’ skills, knowledge, and input as a team perspective. (Transcripts, team B leader)

Similarly, because the leaders support and trust team members, the members in turn expressed the importance of having the leaders as part of the day-to-day work with the team. A leader shared:

I really valued her opinion and saw her as a strong nurse that I trusted. She said that she realized that I needed to take time off when I needed to take it but she just hated it when I took two weeks or more at a time. She said that I was the glue that held the team together and … so in a sense, I was a member of the group, not the boss. (Transcripts, team A leader)

Trusting other team members to be themselves, it was felt, leads to respect for the leader. During my observations, I often saw team members greet the team leaders in a friendly, respectful way. Members were always engaged in conversations with the leader that involved either sharing information or asking for opinions.

These friendly greetings were also talked about during interviews with leaders. As a team B leader said:

When I walk in everyone says hello. They seem to like me so it feels congenial. I think there is a lot of respect. (Transcripts, team B leader)
Further, by encouraging trust in each other, it was reported that team members create a deep level of respect for the input of diverse perspectives during team discussions. There were situations in which it was considered helpful to support team members in providing care and in addressing the concerns of their patients. A leader shared her thoughts about trust and support.

We have to trust and support each other’s perspectives, especially when we need to prioritize concerns on patients’ behalf. (Transcripts, team B leader)

Observational field notes indicate many occasions where which team leaders adjusted their leadership involvement by trusting their team members. In the following example, a physician leader, who is legally responsible for all orders written, delegates to a pharmacist directly:

“Go ahead and write the orders [referring to writing in the patient’s chart], whatever you think is best for him, and I will sign it”. The pharmacist wrote the orders in the chart and asked the nephrologist [leader] to sign and to write out the prescription for calcium. (Field notes, team B)

In the following example, taken from clinical observations, a physician leader showed trust by asking a team member from one profession to mentor a student from another profession.

The physician leader concluded his/her discussions about patient confidentiality issues with a physician trainee as the social worker walked in the room. The leader introduced the social worker to the trainee indicating that the trainee would be in goods hands [trust] and delegating the trainee to spend the rest of the day learning about the role of the social worker in the team. (Field notes, team A)

On another occasion, the physician trainee was delegated the responsibility by the leader to sign the orders. This action indicates trust between the trainee and supervisor [leader] and further exhibits support of the team member’s recommendations.
The fellow agreed with the suggestion by the dietitian to increase calcium with meals and co-signed with the dietitian the orders. (Field notes, team B)

On the other hand, leaders discussed the need to be open and honest with team members, especially if they disagreed with recommendations by other team members. This leads to the second personal value that emerged from the data.

5.1.1.2 The value of being open.

As a form of self-awareness, all team leaders spoke about the need to be open, especially when soliciting new ideas or suggestions from team members. Even when the leader does not agree with a suggestion, it is important that he or she convey this opinion in an open way, so that all new ideas, no matter how different, are discussed and respected.

I think that if team members put forward a suggestion that I do not like, I will explain why I did not like it—not because they suggested it and not me. (Transcripts, leader team A)

In encouraging suggestions, all leaders spoke about the need to be open by being direct, especially concerning legal issues that could result in charges of malpractice. The data indicate that being open means the one who is legally responsible needs to make the final decision and communication is important to help set the ground rules around responsibility. These rules, however, should not block creativity, even when dealing with sensitive and potentially legal issues. Another team A leader explains:

If I disagree [with a suggestion], which happens, I will disagree. In the end, if there is a malpractice suit, it is not the dietitian or the nurse that is going to be sued. I am the one that is going to be sued. Therefore, I think I have to take ultimate responsibility for the plan of therapy. (Transcripts, team A leader)
In being open about activities, one leader talked about creating a “no blame” environment for staff so they could ask questions about managing resources. As this team A leader in an educating role describes:

I think it is okay to say, “I don’t know”. I would rather hear the dialysis technician say “I am having trouble with this machine” at the hospital rather than when they are with the patient during their treatment. It saves time and money. It prevents errors. I am open and honest and I expect the same. It is not about finding faults and blaming. (Transcripts, team A leader)

My field notes contain a range of instances in which leaders were open to comments and feedback from the team, which led to the spontaneous desire to help from other team members. For example, I observed a ward secretary’s spontaneous action as a response to a direct question, during open dialogue between two leaders (both in the same team), as noted in the following excerpt:

MD asks, “Why aren’t the fellows from hemodialysis here?” The nurse leader responded by saying that they [the fellows] left a message about deciding to go where there were more patients to be seen. The physician listened and walked towards the patient who was waiting to be assessed. I saw the ward secretary get on the phone [without being prompted] to page the fellows to come to the unit. The physician told the fellows how she felt about them not being there. (Field notes, team B)

Another example comes from the peritoneal dialysis patient care rounds of team A. A team member told the other members that she thought there was an error in the lab results. The leader supported the team member as she had also noticed that the lab results were anomalous.

In their interview, all leaders revealed a recognition that in order to be open with team members, they needed to find a way to increase their knowledge of the different points of view
represented on the team. The leaders displayed the personal value of being willing to learn from the team members. This brings us to the last personal value that emerged from the data: a willingness to learn from team members.

5.1.1.3 The value of being willing to learn from others.

Team leaders stressed the need to draw upon the expertise within their respective teams. Indeed, leaders were keen to emphasize the importance of shifting from the position of expert to the position of learner in the team. This is illustrated by the following example:

I realize that the world did not come falling apart when I said for the first time, “I did not know”. I am ok with asking others and learning from others, I don’t have to know everything. (Transcripts, team A leader)

Another leader from team B described the value of learning by listening:

Listening to other people’s ideas was probably the key. We could learn from listening to colleagues because we most certainly did not know everything—none of us knows it all. Learning from really, truly listening to each other, together we have a force as a team. (Field notes, team B)

In their willingness to pay attention to others, the leaders were prepared to learn from different points of view. For example:

If you want to do a good job, you should be willing to learn from others. (Transcripts, team B leader)

Leaders talked about not only listening, but also observing as a form of learning. For example:

It is more than learning about their professional roles, it is learning about stresses that underlie the diversity in working as a team. Understanding this means knowing how they can work more effectively as a team. Whatever the issue
happens to be with those folks, I learn by observing and by listening. (Transcripts, team B leader)

Others leaders shared their commitment to learn from others. As one leader noted:

I love learning from my team members and the knowledge experts that they are. (Transcripts, team A leader)

A helpful example occurred when I observed a leader join a conversation to learn from an impromptu “huddle” that happened during clinic. During the spontaneous “huddle,” a triad of team members engaged in sharing information with each other about a patients’ status. Here more members had relevant information needed to care for the patient.

In the conference room there was a small meeting and the physician [leader] now joined the nurse and social worker in a conversation. (Field notes, team B)

Additionally, leaders’ willingness to learn creates opportunities for others to learn by contributing to the conversation. I heard a conversation between a nurse [leader] and a dietitian team member that led to the identification of another team member as a source of information. The nurse asked:

“Do you have the government approval criteria for Section 8, calcium and phosphorus levels?” The dietitian had it in her hands as she proceeded to explain the criteria to the nurse. The dietitian also discussed the senior citizen Ontario Drug Benefit forms criteria and suggested that the social worker would be best able to provide more information on this topic. (Field notes, team A)

5.1.2 Engaging in Self-Awareness: Gaining Self-Confidence in Order to Lead

The second category of understanding self that emerged from the data concerns leaders’ awareness of building or gaining the confidence to interact with team members on a day-to-day
basis. This category of *understanding self* demonstrates how leaders saw themselves grow into their roles over time. The *gaining self-confidence* category refers to how leaders developed an awareness of themselves and how this awareness shaped their actions and interactions with others. The following sub-themes emerged: *confidence based on professional knowledge*, *confidence based on having people skills*, and *confidence derived from everyday life*. Each is discussed in turn.

**5.1.2.1 Confidence based on professional knowledge.**

Professional knowledge is team leaders’ awareness as health practitioners of how their specific discipline relates to patient care. The data indicate that leaders’ experience gained in being responsible for the care and management of patients in a clinical setting provides the confidence to care for team members fulfilling their specific responsibilities to the patients. In their interviews, leaders discussed their confidence to lead through their commitments as professional knowledge experts with a willingness to care for more than patients. A leader in team B explains caring for patients and caring for the team by saying that:

> I always knew that I would be caring for others—not only patients but also the people I work with on a day-to-day basis. (Transcripts, team B leader)

Leaders in team A also discussed their professional knowledge as physicians and nurses, which inspired others to care and serve as team members:

> As director of the unit and a physician, I saw leadership as perpetuating learning in my team and working for the best outcome of the patient. I needed, appreciated, and cared for every member. I wanted the different professionals to feel like part of a team ... like a sports team. (Transcripts, team A leader)
A pattern that emerged in both teams is that all twelve leaders were engaged in patient care activities despite, in many cases, being seen as part of the organizational hierarchy as a leader. Leaders wanted to both lead and provide care. In this example from team A, a leader describes what inspired her:

As a physician, I am inspired to put the patient first, especially in a large organization. This is my strong belief ... I guess it was always in me, I know, I feel it is important to me to continue to see patients. (Transcripts, team A leader)

My observations of both teams reinforced the fact that many leaders regularly engage in clinical work with their teams. Many continue to work side-by-side with the other team members as primary care practitioners, collaborating and coordinating service on a day-to-day basis.

In team B, members who were asked to take on organizational positions, such as educator or director, grew into the role along with their teams. Having the self-confidence to lead came from leaders being engaged in and working as professional clinicians to provide patient care, and growing into the role. This is illustrated by the following excerpt:

I was very good with the patients and loved that whole role. Then I was asked to take on the educator’s role. But I had never been trained as an educator. Therefore, I had to learn what that meant and what that involved to make it my own. So when you are trying to take on a role like that, you are, in effect, growing with the role. (Transcripts, team B leader)

On the other hand, as part of their growing into the role, I saw many team leaders take on new roles by utilizing their professional knowledge as team and community mentors. Their decisions about this also derived from the comfort that they had developed in their professional knowledge, as the following illustrates:
The physician [leader] suggested an education session with staff about recent studies linking kidney and heart diseases. She went on to describe that heart disease could begin even before the kidneys are damaged to the point of needing dialysis. (Field notes, team B)

Some leaders also shifted roles to mentor students outside of their teams. Team leaders talked about their involvement with local colleges and universities that provide nephrology programs for health professional students wishing to specialize in the area. In this example, taken from my observations of team A, the leader describes to another leader colleague her confidence as she considered teaching a nephrology course:

My experiences working with level-one students have been great, I am ready for a new challenge and feel confident that I could also teach a level two of this course. I do not mind sharing my experience in nephrology with those willing to learn. (Field notes, team A)

In addition, I observed team leaders employing their knowledge at conferences and symposia. By engaging in these activities, leaders were able to heighten awareness of current and emerging issues related to working with patients who have kidney disease.

Although leaders used professional knowledge as the basis to take on various roles, no one talked about being formally trained in leadership theory and skills, or taking management courses to improve their leadership skills. However, they did identify other skills that they believed were important for their role.

5.1.2.2 Confidence based on having people skills.

Leaders acknowledged that having “people skills” enabled them to be part of the team as well as to be seen as its leader. As one of the leaders noted:
Any roles that I have taken, whether it would be management or clinical, nursing, nurse practitioner, I think the same principles have to hold. It is about relationship building and having people skills. (Transcripts, leader team B)

In addition to talking about gaining the confidence to lead, many talked about having confidence in their roles with their team in knowing when to defer as leader to other team members.

When I first got into leadership, I was losing staff right, left, and centre. I oriented new staff, but I did not really even know the area that well myself. Somehow, it all worked out. It took a lot of work and learning with staff. I think you must do that and then show others that you are not only a leader but also a staff member. This way, they will help you once they see you care about them and are willing to work with them, understand them, and willing to learn what they have to share. I learned from my staff members. New staff will help you as well, coming into a group like this. (Transcripts, team A leader)

After all, there are times when the leader does not know everything and has to take instructions. Another leader reflected on this point by saying:

I think you have to be visible and you have to be credible to the staff. I could not be credible if I did not know the day-to-day happenings of the unit. Because of this, staff members were very happy to fill me in and point things out, and in a sense, I deferred as leader [to others]. (Transcripts, team A leader)

One leader in Team B described feeling smart and at the same time not being afraid to ask for help:

It is kind of reverse snobbery, because I think I am really smart. If someone mentions a drug that I do not know, honestly I think most people do not know it. I do not feel like somebody will say, “what an idiot—she does not know that drug”.
I am quietly confident that way. I am not afraid to ask for help. (Transcripts, team B leader)

In being confident despite not knowing something, another team B leader commented:

I realize that when I admit to not knowing something I do not lose the respect of my colleagues. I am happy to say “I do not know something” and confident that I will still have respect. (Transcripts, team B leader)

In another example, a leader in team B spoke about being reliable and committed to her work as a leader and to others as a follower:

I am reliable. I think I bring energy to the things that I do. And if I take on a project, I am going to see it through—I am not going to leave anything half done. I am also comfortable in following others as experts in their areas and seeing it through. (Transcripts, team B leader)

Yet another leader in team B talked about the patience she had in dealing with her team members in times of change:

What I identified about myself is that sometimes I hear something new and I have a spontaneous negative reaction toward the new thing. I usually ask myself, “what’s wrong with the old, we are doing it just fine”. Then I usually think about it and reflect on it either in the moment for a few minutes or later for a day or more. I usually actually see some sense to it … you know. I recognize that somebody put a lot of thought into this new thing. Most often, it is really a very good idea. I recognize that in myself. I have that spontaneous resistance to change attitude. In my position [leader], I have the patience to know, as a member, why others may have the same reactions and attitudes [as me]. I also recognize that … they can be a little more vocal about it than I can but it is just, I think, human nature. (Transcripts, team B leader)
Other skills that leaders in team B talked about are having the administrative skills to attend to planning and process issues with the team:

Maybe I think it’s the role of the manager because you need somebody to schedule the room, get everybody together, put out an agenda, you know, have some kind of consensus to facilitate. Then it rather runs itself. (Transcripts, team B leader)

As mentioned in Chapter Three, members of team A and team B identified people they felt exemplified leadership qualities in helping them feel a part of the team. In turn, the interviews and observations suggest that these leaders display confidence in being a leader in their team, and as members with professional knowledge in caring for patients, helping other team members, and in doing research in an area of specialization. Overall, in gaining confidence, the interview data suggest that leaders focus on being at their best in any role within the team.

5.1.2.3 Confidence derived from everyday life.

In their interviews, leaders suggested that building confidence using skills developed in relationships outside of work life and in the work context is important. In this example, taken from the interview transcripts, a leader from team A talks about relationship experience outside work life that built his confidence.

Knowing that I am in charge of caring for so many patients and secure in sharing my knowledge and experience with my colleagues and trainees and then having to go home at night and take the opposite role of having my wife in charge of things. A balance is important in developing self-confidence as role models to others. Leaders cannot do a job well without this. (Transcripts, team A leader)

In a similar vein, another team A leader shares her insights about using life experience to develop skills to do her job by saying:
I think that my people skills are a lot better since having kids. Because you know, you have to negotiate with kids. In health care, we are not taught how to negotiate with team members. (Transcripts, team A leader)

A third leader from the same team talks about drawing from her personal life skills to develop the confidence to deal with professional team members who are experts in their areas of practice.

I remember when my kids were little, if I had trouble with my computer, I would ask for their help with it. They just loved it. I use the same strategy with my team members. If I have trouble understanding something, I use the same technique, I ask not only for the obvious input, but for their opinions and gut instincts. This way they know that I am interested in what they do, others will know more about their roles, the potential for disagreement is lessened, and hopefully they love it as well. (Transcripts, team A leader)

Leaders also talked about using people from outside work to inspire the confidence needed to take on various positions within the team. In this example, a leader from team B talks about role models:

I have role models. I have had some good teachers. Like the director of nursing whom I had in past years. I learned so much from her and I could do the same for others. This is role modelling, as I had a role model. I think you can learn and you can teach, you can lead and you can be led. (Transcripts, team B leader)

In addition, leaders talked about identifying areas in which they struggle and so need some development. A leader from team B talked about her difficulty with giving feedback to staff and students:

Having good criticism skills, I have not figured out that. They teach us to say something nice. For example, put the criticism aside and say something nice. You
know. I am trying to be attentive to that. However, it is not coming naturally to me. This is to do with residents and mentoring. I know if I criticize them, if they do something wrong, they will explode into tears and run away … I also learned a lot from volunteering at youths’ summer camps, but I have not gotten there. I do not know the right way to do it. (Transcripts, team B leader)

In another example, a leader from team B talked about her perception of leading learning.

Actually, I think we [leaders] need training. Yeah, I think we need the tools. We are not born as leaders with tools or skills. Your personality I think is a multifunction. It is a function of your genetic disposition. I think it is also a function of the environment and part of that environment is what you learn. (Transcripts, team B leader)

Overall, the leaders discussed here described themselves as individuals with a keen awareness of the importance of encouraging others to give their best, to use all their resources to work together as a team. The second major category in this overarching theme of perceptions and experiences of leading team learning is understanding others, which is discussed in the next section.

5.2 Understanding Others

The category of understanding others emerged from the data as leaders’ awareness of how to help team members improve their performance by influencing the way they integrate with each other and how they perceive being in a team. Most leaders talked about the need to understand the various health professionals who were to work together and how this understanding influences team learning. Leaders stressed the importance of understanding the unique approach that each member adds to the team while holding onto his or her own perspective. This form of understanding others surfaced in two ways: recognizing members as
unique people with their own professional responsibilities who together build a shared experience; and recognizing social barriers that impede the sharing of experiences. Each is discussed below.

5.2.1 Recognizing Members’ Diversity While Building Shared Experiences

As illustrated below, building a team involves more than just assembling people with different skills and clinical knowledge to provide care and service to a specific patient population. Leaders talked about recognizing members as unique people with their own professional responsibilities, expertise, and roles, who need to learn how to work together and how to build shared experiences. This recognition emerged in three distinct ways: striving to keep the diversity required for caring for patients; supporting patients as part of the team; and encouraging members to share in care.

5.2.1.1 Supporting diversity in caring as a team.

The data indicate that leaders understood the need to recognize team members as experts in caring for the patient in their professional domains. Leaders emphasized the need to create space for each team member to contribute to patient care. Here a leader in team B describes her insights about maintaining a team approach to patient care:

My goal is that when a team member sits in front of the patient, including myself, we are serving the patient as a team. We are not individual members consulting with the patient then taking off ... with a note to follow. (Transcripts, team B leader)

Similarly, another leader talked about the team members learning through each individual member’s work with patients:
The patient is seeing a caring individual as a team member—willing to listen. In effect, we will all learn from each individual’s interaction and contact with the patient. (Transcripts, team B leader)

Most leaders felt that their role was to create an environment in which members would talk together and complement each other’s work in caring for the patient. There was a sense that it is important to recognize the diversity of roles while getting members to talk, as reflected in the following quotes:

The main thing would be getting them [members] to talk together as a group and learn from each other as a group … so that they, including myself, could complement each other in providing patient-centered care. (Transcripts, team A leader)

At team meetings we usually have the social work, dietary, physiotherapy, physicians, doctors, nurses, and sometimes pharmacist if there is a specific need. We try to have all the various members together, when we could, so that we could share and to listen to each other. (Transcripts, team B leader)

In talking about striving to learn from the diverse work with patients done by different team members, leaders from both teams A and B referred to their members as a “group” and others used the words “team” and “group” interchangeably. Regardless of which word was used, most leaders talked about the value of diversity in providing care as a team. A leader from team A said:

Everybody is important in his or her own unique way. Everybody has important perspectives to share. I believe it is about coordinating our assessments and plans … and contributing to get a holistic view of the patient. Most of all it is about making a plan that is the best for the patient; after all, it is why we are here. (Transcripts, team A leader)
In this example, a leader from team B talks about striving to maintain the diversity of team members’ expertise:

Everybody has their areas of expertise … and when we come to the larger table … I think it is how it works. … I think it is being able to take the best of everybody’s ideas and then synthesize it into what is best for the patient.
(Transcripts, team B leader)

Additionally, one leader in team B saw little distinction between the needs of diverse students and the needs of other professionals on the team. The leader’s emphasis was on patient-centered care. The leader in team B recalled her own impressions of learning in a diverse group:

I think it has actually been engrained from the beginning, when I was at university, many years ago. We learned in a group, there was very little distinction among the needs of nursing students and the needs of other allied health students and the needs of medical students. We all learned together, which I thought was tremendous. I think it is still the philosophy of interdisciplinary learning and seems to represent a strong push towards peak patient-centered care performance as professionals. (Transcripts, team B leader)

5.2.1.2 Supporting patients as part of the team.

Some team leaders talked about patients as part of the team. This meant encouraging flexibility about the role of patients in the team. Traditionally, because of confidentiality concerns, the patient care team meetings do not usually include patients. One leader from team B shared, in an emotional way, her own thoughts about supporting the patient:

It all about patient-centered care; we are the ones with the knowledge … as a team. It is important that the patient is also a part of this learning and they see us as a collective … or team … with a vision of helping them make informed choices.
(Transcripts, team B leader)
Leaders from team A actually created the opportunity for patients to be involved in learning about care along with the rest of the team. This did not involve patients in the team meeting to discuss their direct care; instead, as I observed, a patient advisory council was created to discuss how to care for patients. This involved the coming together of representatives from the professional members as well as representatives from the patient population in structuring an opportunity to learn with and from each other about how to care as a team.

On Thursday, the nurse was calling many patients to find out if they were feeling well and to get confirmation about if they were still planning to attend the patient advisory council meeting on Friday. (Field notes, team A)

Another leader described the significance of patients being integrated at the team level:

There are different meetings with different focuses, of course. Patients do not come to departmental quality meetings but they definitely attend meetings to discuss patient needs and increase knowledge through the council. (Transcripts, team A leader)

When patients are not able to attend meetings on a regular basis at the hospital because of their illness, they still have an opportunity to be part of the learning with the team. I saw both leaders and team members encourage patients on an ongoing basis to sign up for on-line access to their health records. By doing this, patients became part of a routine communication and collaboration process with the rest of the team members, and thereby were involved in learning with the team:

In team B, the patients attended training sessions for a new on-line program in which they could access the portal for health information and communicate on-line with a team member. (Field notes, team B)
5.2.1.3 Supporting shared experiences to be a team.

In being aware of members’ diversity while building shared experiences, leaders were aware of the need to be creative in order to get all members functioning as part of the team. Leaders recognized that learning happens when team members intermingle with each other; they acted on this recognition by welcoming diverse participation from core and transitory team members. These leaders showed acceptance of team members’ interactions and participation in various ways of team learning. They were creative in how they supported the evolution of the team. I overheard a leader from team A talking with her student about sharing experiences:

All team members are welcome to participate in team meetings for these clinics ... this helps us to prioritize and coordinate patient activities in the team. (Field notes, team A)

I also heard another leader say to the student later that day:

Their [team members’ and students’] participation and involvement in patient care rounds enhances each other’s understanding of the various roles that are needed for excellent patient care. You will see what I am talking about when we do rounds on Friday. (Field notes, team A)

Most leaders felt that the team meetings provide a structure for members and students to share in the experience of learning as a team. I saw this process on many occasions as leaders guided members away from a consultative approach to participate in a shared learning experience. As confirmation, I provide an example of team members engaged in an intense conversation in which learning was shared during a team meeting:

The physician, nurse, and social worker were having an intense conversation about the amount of kidney damage a patient had developed since he went away on holidays. By the end of the conversation, they [physician, nurse, and social
worker] prioritized the care for a patient (who was not doing well) by establishing that the patient was nearing stage four of kidney disease [this is a severe stage and the patient may need to have dialysis in order to survive]. Team members also discussed the need to begin work-up and having a conversation with the patient and his family to support their decisions. (Field notes, team B)

Leaders deal with diverse influences from outside the team. Most leaders felt that there is a need to understand and consider mandates, such as directives and policies, coming from outside the team that might influence how team members interact and learn within the team. I observed a leader from team B talk about such a directive:

The leader [physician] stayed back [at the end of patient care rounds] to chat with her student. She explained to the student [fellow] that the physiotherapist needed a written order in the patient’s chart before she could intervene with the patient. The physician went on to explain that most of the other team members could be given a verbal request to assess the patient. (Field notes, team B)

Similarly, on a few occasions, I saw team members talk about various pressures from outside the team that had an influence on the interactions and experiences within the team. For example, I heard one team member talking to another about the pressure of having to complete tasks outside of her work with the team by the end of the month. Some team members also reported to managers outside of the team. For example, a team member described duties outside the work of the team:

I [team member] have to keep track of the patients I saw anywhere in the hospital and record them daily in a specific workload measurement computer program. I have to sign off on it at the end of the month. (Field notes, team B)
On another occasion, my observational data indicate that three team members (two nurses and a nursing student) were talking with each other in the nursing station about the different reporting tools used by members to share patient care experiences:

We [nurses] use a computer program called “Grasp” to record our daily patient interactions, and the social worker and other allied health professionals use workload measurements tools. (Field notes, team A)

I also saw leaders show appreciation of the influences from outside the team that could benefit the team in terms of future team learning or facilitating team activities. For example, a nurse talked about non-clinical skills and qualities developed through working in her profession outside of the team:

The leader listened intensely as the nurse talked about her role of being in charge of a conference planning committee for her nursing professional practice group. The leader then responded by recognizing these skills sets that could be useful to the team in planning educational events. (Field notes, team B)

5.2.2 Recognizing Social Barriers That Impede Shared Experiences

Though the emphasis on team involves acknowledging members as unique people with diverse professional responsibilities, expertise, and roles, some leaders from both teams expressed the thought that with diversity come the possibilities of social barriers that may impede the development of shared experiences. Leaders talked about identifying these social barriers by being aware of how members function and interact with each other within the construct of the team. Recognizing social barriers emerged in three categories: identifying sources of power and control in the team, dealing with power and control, and helping members get along with each other.
5.2.2.1 Identifying sources of power and control in the team.

Leaders from both teams talked about identifying the power and control issues that sometimes emerge when members come together with a focus on providing patient care, but not on providing care as a collective. Individuals focused on power and control can sometimes block the formation of a team feeling. Leaders talked about being sensitive to the root cause of issues with power and control among members working and learning as an interprofessional team. One leader from team A expressed her thoughts about identifying sources of power and control while being sensitive to members’ professional backgrounds:

In dealing with identifying sources of power and control … You cannot try to change things without being sensitive to what the background is and what they are going through and really understanding what the problems are. You need to be aware and sensitive of what is practised; in effect, you need to use this sensitivity to create a sense of belonging. (Transcripts, team A leader)

In addition to being sensitive, leaders talked about recognizing professional tensions among team members that might cause feelings of superiority. Leaders remarked that to feel a sense of belonging, team members need to know that it is all right to be different. A leader from team B talked about her views about power and control saying:

Everybody can contribute in a solid way, in a real way with the patients; however, addressing team issues was not that someone’s idea was better than anybody else’s... it was just different. (Transcripts, team B leader)

Team leaders confirmed that it is not always easy to identify sources of issues with power and control. One team leader recognized stereotyping as a barrier to including others as key members of the team:
Stereotypes do exist in many interdisciplinary meetings and I have seen examples in our team. In the early days the nurses felt that the dietitians’ only concerns were around meal trays and food delivery to the unit. The nurses took control over teaching nutrition. Today it is different; we rarely deal with tray deliveries. The dietitians are involved in team meetings and are communicating their assessments of the patient’s nutritional status. This has a huge impact on the patients’ outcomes. It also impacts how other staff works with the patients; over time the control over roles and jobs have shifted. The nurses don’t have the knowledge and time to spend with the patients in nutritional counselling sessions. (Transcripts, team A leader).

5.2.2.2 Dealing with power and control

Although leaders recognized that creating a sense of belonging among different people is not always easy, they felt that dealing with power and control could encourage members to take a risk in opening up to others. One leader talked about risk-taking by team members:

I believe all questions may lead to creative thinking. To be different is not as easy as it seems, I know from experience. Asking questions spontaneously is taking a risk ... and I see these amazing staff doing it [asking questions] all the time. (Transcripts, team A leader).

Recognizing stereotyping as a block to creating a sense of belonging and therefore to team learning, the leaders offered suggestions to deal with this. Although humour can sometimes be used to undermine people, in this example, the leader suggests that humour can help to create a sense of belonging among team members.

I think humour would address and help us to understand what stereotypes exist among the team members. I think that it is becoming less and less of a big deal, at least in our team. (Transcripts, team B leader)
A leader in team A talked about a time when humour was used to pull the team together:

It was very funny, we just pulled it together, and we just poked fun at each other. We had so much fun. The whole team pulled together and had a good laugh over what it is. (Transcripts, team B leader)

Leaders’ awareness in creating an environment of recognition is thought of as a way to deal with breaking down the social barrier of power and control. This leader felt that she needed to encourage members to recognize each other in the team:

You could see it in people’s eyes and their behaviours, when they know it is sincere to be told they are recognized or that they did a great job. They really appreciate it. But it is not just for me. I think they get it from everybody in the team and they put that effort in. (Transcripts, team A leader)

Similarly in addressing potential issues of power and control, a leader in team B commented:

We all have a need for verbal recognition. I appreciate it when I get it. You know whether it is from a boss or somebody that reports to me. Actually, with somebody that reports to me it has not been done that often but when they do it, it really means a lot. (Transcripts, team B leader)

Another leader from team B felt that the type of recognition paid to each other is important, she stated:

In-the-moment recognition is important, members feel appreciated. This is very important and as equally important as the ongoing yearly evaluations. It is what people need to hear in the moment. (Transcripts, team B leader)

5.2.2.3 Helping members get along with each other.

Most leaders from both teams talked about the need to get along with others and the importance of developing team relationships; a leader in team B explains:
It is certainly getting along with the players [team members] and … they are the big part, the knowledge experts. You should not have to be best friends with people in order to build relationships and build a strong team direction for your programs. (Transcripts, team B leader)

Sometimes team members will become friends who encourage each other. Their friendship can lead to them engage in social activities outside of work. A team leader noted:

We tell each other “job well done” to recognize each other’s great work.
Sometimes we take it out of work and go to a golf tournament. (Transcripts, team A leader)

Occasionally, helping others get along allows team members to support a member dealing with a loss. For example, speaking of a poignant situation, one team leader shared:

We show each other we really love each other. This year I am sure you know that we had a tragedy with one of our members that suffered a loss. That was sad for all of us. We came even closer together and supported her and we supported each other. (Transcripts, team B leader)

Some teams depend on technology as a way of getting along. For example, some team leaders provided the latest technology to allow members to communicate with each other as a team. Although, not all team members had this technology available to them, a leader in team B recognized the need for all team members to possess it. The leader observed:

We—the doctors, nurse practitioners, fellows, and residents—use our Blackberries to keep in touch. We are communicating 24/7 so we all know what is happening with the patient on any given occasion. We need the rest of the team to come on board with this technology … the budget will tell. (Transcripts, team B leader)
On the other hand, leaders talked about helping members form relationships by creating opportunities for them to interact. Here the leader is talking about using a conference budget to send members to professional events.

I find the money to ensure all members attend conferences and learning, networking events. (Transcripts, team B leader)

5.3 Summary

In summary, this first theme sheds light on how team leaders organize their work and provides some understanding of their thinking styles or frames of reference. It highlights the fact that leaders in two unusually well-established team settings have an awareness of themselves in their personal and non-work life that also informs their ability to understand others and to lead. The category, engaged in self-awareness, represents the personal values that guide team leaders in helping them to understand themselves. Personal values emerged as part of the leaders’ perception of their role in developing trust in team members and being open, especially in order to address concerning legal issues that could result in charges of malpractice, errors, or mishaps. Leaders feel strongly about the value of their willingness to learn from others. The second category, engaged in understanding others, represents the perspectives on helping team members evolve into a collective. Leaders reported that they need to recognize the diversity of the team while creating a sense of belonging in each member. Leaders talked about recognizing and encouraging team members to look into their own backgrounds and their own shared experiences, to build and nurture the team’s character.

As noted above, the term “team” seemed to mean different things to different leaders, depending on the leader’s role in a particular context. For example, for the chronic kidney disease unit, the term “team” means team members coming together to connect with each other
in a temporary space each week. While, for the peritoneal dialysis unit, “team” means all members connecting every day in a permanent space they called home. Despite these differences, all leaders reported a need to understand not only themselves but also all the other members of the team.
Chapter Six:  
Creating Collective Knowledge

6.0 Introduction

This chapter focuses on the second broad theme that emerged from the analysis, which centres on how knowledge is shared as a form of team learning within the social context of specialized, interprofessional teams A and B. Specifically, the chapter focuses on how information, perspectives, opinions and insights are shared, as the collective knowledge of the team. The chapter goes on to describe how collective team knowledge, pertaining to the care of the patient population it serves, supports the teams’ daily functions, tasks, processes, and the overall operation. Based on the data, collective knowledge is created in two ways: information requested by others and spontaneous voluntary sharing by others. Each of these is discussed in turn.

6.1 Information Requested by Others

This sub-theme refers to the creation of collective knowledge through the asking of questions. Team members and leaders direct specific questions and concerns to others in order to obtain new information to fill knowledge gaps. Questions emerge from conversations among team members who are trying to learn the intricacies of caring together to increase their knowledge base about managing kidney disease. This collective knowledge increases all team members’ understanding of a situation. The category of Questions asked represents two specific team interactions: questions asked by established team members and questions asked by transitory team members such as students, researchers, or visitors. I discuss each one below.
6.1.1 Questions Asked by Established Team Members

In many instances, established team members ask questions as part of their process of continuous learning, when they identify a personal knowledge gap or lack of understanding of a process or task-related situation.

6.1.1.1 Team member to team member.

In both teams it is general knowledge that the charts of all patients seen during clinics are briefly reviewed and discussed at patient care rounds (team meetings) later in the week. Usually at patient care rounds, the pace is rapid; there are a large number of charts to be reviewed in a short period. As a routine, team A has a set agenda, and this helps set the pace of the team meeting by ensuring that every case is quickly reviewed with all interprofessional team members and students present for the entire meeting. In this example, a staff physician asks about the team’s process and about charts that are on the table to be discussed, but not on the patient care rounds team meeting agenda.

Please tell me more about what is going on with [Mr. Smith]? This patient was not in the clinic and his name is not on the agenda, why is the chart here? (Field notes, team A)

This simple question reinforced the idea that all patients to be discussed should be put on the agenda and provided an opportunity for attendees to learn about team processes. Clearly, if every team member brought an additional chart to be discussed, then the meeting would not end in a timely fashion. Since the process for reviewing a large number of cases involves all members of the team in the discussion, an agenda helps to manage the timing of the discussion.

In contrast, in team B, there is no routine agenda and not all the team members are involved in discussing and reviewing all patients’ charts. Here the staff physicians usually rotate
with the rest of the team to discuss their patients. However, in team B, a type of solicited question from established team members also emerged in reference to the team’s process for performing tasks. For example, during patient care rounds, while the team members waited for the primary care physician to arrive, I observed a nurse who seemed surprised that the physician was not present and asked other members around the table:

Did [Dr. Janet] confirm that she would be here at 10 a.m. for the meeting? Do we know why she is not here yet? (Field notes, team B)

No one seemed to have an answer and just then the physician walked in and apologized for being late.

Here is another example taken from team B during the clinic. This time the experienced nurse asked the experienced clinic secretary:

Did she [physician] do the prescription for the patient? Or do I need to fill one out? (Field notes, team B)

Other general questions refer to the scheduling of team members. The question that follows relates to the scheduling availability of a medical fellow. A nurse asked in the nursing station:

Which fellow is on today? (Field notes, team A)

In team B, an example of a general question asked about scheduling and team coverage came from the social work team member. She asked the nurse coordinator:

Do we know when we will have a person to cover for [Sally], the pharmacist, who will be on vacation leave soon? (Field notes, team B)
Frequent questions by established team members involve clinical knowledge pertaining to management of patients’ related clinical care.

One of the most common problems seen by team A, especially when patients start dialysis, is poor drainage of the dialysis fluid from the patient’s peritoneal catheter. In a morning report, two nurses discussed whether the cause of the poor dialysis drainage may be an over-rotation of the peritoneal catheter. One nurse asked:

If over-rotated do you need a tube change? (Field notes, team A)

On another occasion, during the clinic, a physician wanted to prescribe sodium bicarbonate for a patient and needed to know, from the pharmacist, the dosages that were available. The physician asked:

Is sodium bicarbonate 500 mg or 600 mg pills? We need to give him some Bicarb with a level of 13. The pharmacist responds 500 mg, and the physician decided that we will prescribe 1,000 mg. (Field notes, team B)

Established team members seem to be continuously learning from others by asking questions about the use of language. In this example, a nurse has a question about the meaning of the terminology used by another nurse in terms of putting orders for the medication Arasnep on hold and deciding when to restart:

When you say *hold* Arasnep for 30 days, what do you mean?

Nursing responds, “...Need to calculate date to restart”. (Field notes, team A)

Here a nurse asked about the timing of antibiotics for patients with peritonitis during patient care rounds. Standard treatment for this type of infection of the peritoneal cavity is
antibiotics. In this case, the patient was on antibiotics but had a new infection caused by different bacteria. The nurse asked a couple of questions:

- Do we need to add a new antibiotic medication? What is the standing order in this situation? The last day for antibiotics was yesterday, now the patient has a new growth of bacteria. (Field notes, team A)

In another example of continuous learning, during patient care rounds, the discussion centered on the topic of nutrition and blood levels in patients. One physician asked the dietitian a general knowledge clinical question to increase her knowledge:

- What foods are high in magnesium? This patient has low magnesium. (Field notes, team B)

Again, in patient care rounds, a pharmacist asked the dietitian for her opinion to fill a knowledge gap; she asked:

- Why do you think the urea is high when the patient is on a low protein diet? (Field notes, team B)

### 6.1.1.2 Established team member to transitory team member.

“Transitory team members” refers to students and researchers who are not well-established team members. Transitory members spend time with the team, but they are there only to complete specific tasks. Students’ tasks involve learning in an informal way to gain knowledge, skills, and competencies, and researchers’ tasks involve gaining consent and collecting data related to a research topic from patients and staff. Transitory members’ direct questions sometimes trigger the creation of collective knowledge. Students or trainees often introduce new ideas for completing tasks and developing processes within the team. Team members appeared willing to learn new techniques that can help with the overall flow and
function of the team. Emerging from the data are questions that established team members asked students because they did not know the answers.

In the following case, at a team’s education rounds, a student was giving a presentation on genomics. The topic was new to some members in nephrology. An established team social worker, who indicated that she did not really know, asked:

Why is it called “genomics”? What exactly is genomics? (Field notes, team B)

In patient care rounds, another established team member asked a student about a drug she was not familiar with and used to help people stop smoking:

I am not familiar with this, why is the patient using Habitrol? (Field notes, team B)

Other types of question asked by the established team members were directed to students in order to assess their clinical understanding. I regularly observed established team members in both teams ask students questions designed to reinforce teaching and learning in practice. In this example, a physician asks:

In general, what do we do when we see low albumins? (Field notes, team A)

In another example, a nurse asks a student (fellow):

When is the peritoneal equilibrium test done to determine how long dwell time should be? (Field notes, team A)

In patient care rounds, a physician asked a student about the dosing of a certain medication:

How much was 1/2 a pill? (Field notes, team A)
Other questions were of general interest; for example, during a clinic in team B, I heard the ward secretary ask the bone density researcher:

What is your research about? (Field notes, team B)

A well-established nurse team member asked a fellow two general clinical questions during two different clinic times. Both questions related to direct patient care, and resulted in a plan being made to consult with the pharmacist and the dietitian to find the answers. The nurse asked:

If a patient has an ileostomy, is liquid iron better than the pill form? (Field notes, team B)

What are the recommendations for vitamin C in our patients, since they may cause kidney stones? (Field notes, team B)

**Questions Asked by Transitory Team Members**

The following are examples of questions asked by students, researchers, and other transitory team members involved in various activities within the teams.

6.1.1.3 Transitory member to established team member.

A student needed to fully understand the timing of the peritoneal equilibration test (PET). This student understood from learning with the team that the test is done within the first month on all patients. However, in education rounds, the student asked the presenter and other team members the following:

Why not start the PET test at 0-1 weeks? Why wait for 0-4 weeks (Field notes, team A)
Usually, these PET tests are performed after starting dialysis, thereby giving enough time for the patient’s body to get used to the treatment and to make sure that the dialysis was working properly before determining the appropriate amount of dialysis for each patient.

Another type of general knowledge question asked of team members by students concerned the scheduling of patient appointments. I heard a student ask the ward clerk:

“What about the appointment for ‘Adequest Test’, when do we need to book this?” The ward clerk explains that it was too early in the patient’s treatment to do this test. (Field notes, team A)

In another example, a student asked the physicians about an adjustment that the team was making to correct for an error in the calcium levels reported in the past:

Are we still subtracting the 0.2 for calcium levels? (Field notes, team B)

Students also asked questions about the way computers are used to support the team’s work. Observed in the nursing unit of team B, a student asked:

Do you have the formula for calculating creatinine clearance on this computer? (Field notes, team B)

An example of a question from a researcher to a well-established physician team member involves general information about a follow-up appointment for a patient switching clinics. The researcher asked:

What do you want to give him for a follow-up: four weeks or six weeks? (Field notes, team A)

In this example, a student asks a question about how a procedure is done, one that the nurses were not familiar with:
How do we order the dipstick test for urine analysis? (Field notes, team A)

By the student asking the question, the well-established nurses, who did not know the answer, showed interest in learning more about how to order the dipstick test. The nurses expressed to each other that although the dialysis patients do not pass urine, it might be helpful to know how to order this test. The student [fellow] then went ahead to learn how to order this test and to show the rest of the team.

The research team members are to interact with patients only if this does not interfere with their care. Transitory research members were continuously asking team members:

Is the patient to see anyone else? Could I spend about ten minutes with him now? (Field notes, team B)

On a few occasions in team B, I heard the Shared Information Management Services (SIMS) specialist ask the nurse to let a patient know where she was located that day:

Would you please let Mr. Smith know I am in the room on the left and I will be back in twenty minutes to teach him about the portal? (Field notes, team B)

6.1.1.4 Transitory member to transitory team member.

In drawing out team members’ thoughts, I observed both student and research members ask other transitory members questions, a process that helped to inform team members as a whole. These exchanges most often involved an interprofessional team member interaction. By interprofessional, I mean students and researchers from one profession were engaged in conversations with members from another profession. In learning to use some of the team’s technology in caring for patients, I heard one student ask another student:
“What do I put here?” The student was referring to the computer data entry for getting an analysis of a sputum sample. The student replied, “productive cough”. (Field notes, team B)

In another example, a student asked another student a general clinical question about patients achieving their target weight:

What might cause patients difficulty in getting to Target Weight? (Field notes, team A)

In the huddle room with team B, I heard the “bone density” researcher ask the “functional outcomes in elderly patients” researcher:

So what is the process here? Where do you talk to the patients about your study? (Field notes, team B)

In team A, I heard a transitory physician team member [fellow] ask another transitory member, a dietetic intern:

This patient has been using allopurinol since 1999. Does he need allopurinol or do you think a diet would be helpful? (Field notes, team A)

Also in team A, I heard a physician fellow ask another physician fellow, who had completed a placement with the kidney transplant team and was now in the peritoneal dialysis team, this question about Ontario Transplant Tracking Record (OTTR):

I need information to complete these forms; the information is on the transplant electronic records system called OTTR. I know you just came from transplant, do you know how I could access this information from OTTR? (Field notes, team A)
These interprofessional learning teams use the social interactions of all team members in order to create new and collective knowledge, which then is transferred to new members by others.

6.2 Spontaneous Unsolicited

Spontaneous unsolicited activities emerged from the data in the form of unplanned responses and unexpected expressions that uncover team members’ knowledge. These spontaneous opportunities for sharing ultimately produced knowledge that informed others and created a new team perspective on the general patient population, related protocols, unit dilemmas, team successes, and mentoring issues. Spontaneous unsolicited triggers describe the team member’s desire or need to spontaneously share knowledge relevant to the team not in response to a direct question.

Though spontaneous and unsolicited, it brings a new perspective to the team members and adds to their general and clinical knowledge. Spontaneous unsolicited sharing of knowledge appears to take three forms: expression of a concern; excitement for sharing; and collegial desire to help by contributing.

6.2.1 Expression of a Concern

Team members often needed to express concerns as a spontaneous unsolicited sharing of issues. This in-the-moment willingness to share with other members in practice provides a forum for the identification of shared concerns and subsequently leads to the creation of shared solutions as a form of general knowledge within the team’s purview. The following are examples of spontaneous unsolicited expression of concerns taken from education rounds in team A.
At the start of education rounds, a nurse deviated from the usual format to express a concern. The nurse [not identified as a leader] had just returned from a patient advisory committee meeting, and felt the desire to share with the rest of the team what she had learned. Usually at education rounds, discussion takes place about the research article presented, but the nurse proceeded with the concern even though it was unplanned. She said:

The retail pharmacy in the hospital noticed an increased number of prescriptions that were not clearly written. Patients were being sent back to the unit with the prescriptions to get clarification; however, this was frustrating and time consuming for the patient, the physician, and the pharmacy. (Field notes, team A)

Another example of an expressed concern was observed in team B’s huddle room during clinic time. I heard a well-established team leader say to the other members in the room.

We are having a problem with the electronic patient records today. The help desk people are working on it and they say it should be up and running soon. Please check with help-desk on the status of this situation. (Field notes, team B)

Another type of expressed concern is exemplified by this remark heard during patient care rounds. A physician [identified as a leader] unexpectedly expressed a concern about a plant shutdown that she read about in the newspaper. She said:

Did you read that there is a shortage of barium? One company has site contamination (the only company providing barium). Now there is a backlog. (Field notes, team A)

Another expression of concern was heard at team A’s nursing station. The ward clerk announced:
Some patients are ordering their own blood work. The nurse wanted to know more about this. (Field notes, team A)

On another day, during patient care rounds, a nurse expressed a concern about inputting requests for blood work in the computer.

We are having problems with putting blood work in the computer. Apparently, it is picking up transplant labs only. We are not getting all the labs for our patient population. (Field notes, team B)

In the hallway of the nursing unit, a student suddenly expressed concern about the quality of the drinking water on the unit since construction started:

The water coming out of the tap is brownish. I am going downstairs to buy some bottled water, would anyone like me to pick some up for you? (Field notes, team A)

During the clinic, the ward secretary expressed her concern that there were two patients with the same last name. She cautioned team members to double-check first and last name, as well as date of birth:

There are two patients with the same last name. Please double check names to avoid errors. (Field notes, team B)

6.2.2 Interest in Sharing

Team members showed an interest in sharing new information and did not hesitate to talk about the latest discovery, newly acquired knowledge, new information, and their understanding of new research. This interest in sharing emerged as a spontaneous unsolicited trigger for enacting the collection of general knowledge. As I observed in education rounds:
During education rounds, a transitory team member [visiting scholar] spontaneously shared his knowledge about the rate of diabetes in a population in another part of the world: reference to latest papers received from Israel (30% Db), that the team had not heard before. (Field notes, team B)

On another occasion, after education rounds, the dietitian was excited about something she had learned and wanted to share it. Taken from my observations:

Suddenly, the dietitian mentioned to team members that she had a recent article about the latest nutritional supplements for dialysis patients. She wanted to share this in education rounds with the other team members and asked for a date to present. (Field notes, team B)

Here the staff nephrologist expressed interest in what she had heard on the news that morning, and proceeded to share it with team members at patient care rounds.

The staff nephrologist unexpectedly referred to a news report on CNN this morning about dialysis patients. She went on to explain that CNN was presenting a documentary to profile patients who survived hurricane Katrina and the challenges they face with getting dialysis treatments during this time. The documentary focused specifically on the hurricane in New Orleans and highlighted stories of how people coped with the disruptions they faced in getting needed dialysis treatments. (Field notes, team A)

Other spontaneous interest in sharing, seen in team interactions, involved conversations about evidence-based publications about which some felt the rest of the team needed to know. The following is an example in reference to newly acquired knowledge from published information.

A student (fellow) shared with team members at patient care rounds the latest about heart attacks and strokes. This sharing triggered a small spontaneous interprofessional discussion that
contributed to the possible development of increased knowledge leading to improved patient care.

The student eagerly referred to a study on the use of Plavix. This triggered a discussion on the use of aspirin, which is also used to prevent heart attacks. Discussions involved the use of aspirin in combination with Plavix to help prevent further heart attacks in high-risk patient populations, including peritoneal dialysis patients. (Field notes, team A)

Similarly, in another spontaneous sharing of information, I saw the data processor clerk eagerly share her findings on flu shots. This struck me as strange, as I thought that everyone in the team would already know this, but I realized that the data processor, because she is not a clinical member of the team, might not make this assumption:

The data processor, on impulse, shared with everyone information about an article on the flu shot that she had read. She excitedly explained that after you get a flu shot, your immune system produces antibodies against the strains of virus in the vaccine, and that the antibodies are effective for 4–6 months to prevent a flu infection. (Field notes, team A)

Time after time, members shared information with others in the hallway while waiting for the next patient. On one occasion, I saw a physician in team B share with others, during the clinic, her discovery of an evidence-based practice presentation about blood sugar management in the field of transplant that may be of interest to the rest of the team:

Transplant rounds on the 11th floor this Friday… did you know there will be a session on blood sugar management in transplant patients with kidney disease? (Field notes, team B)
At another time, during a clinic, I observed the dietitian excitedly make a spontaneous expression to the rest of the team. She showed her new visual aids, explaining that her volunteer students helped to assemble a model and shared how she would use it. Taken from my observation notes:

The dietitian was proudly showing off her salt display, which depicted test tubes filled with various levels of table salt to represent the salt that is present in certain food servings. Although this took place in the patients’ waiting area of the clinic, the physicians and fellows gathered around spontaneously to hear more. (Field notes, team A)

In addition, in team B some members continually shared their excitement about their success in tasks performed during the day. Here I observed:

The social worker seemed excited about how the day was unfolding; she seemed to be making some headway in resolving a patient issue. She shared this spontaneously with other team members in the huddle room. The patient was finally going to resolve a situation. (Field notes, team B)

Another time, I heard the Kidney Foundation representative, speaking to the ward secretary, share information in the hallway during clinic:

I have the new DVD that is available to patients in the education room. I welcome staff members to come look at it any time … the DVD deals with renal replacement therapies. (Field notes, team B)

6.2.3 Collegial Desire to Help by Contributing

Team members showed a collegial desire to help other team members by contributing knowledge and opinions based on their personal experiences. This collegial way of helping by contributing information emerged as a spontaneous unsolicited trigger for creating collective
knowledge. Although, some collegial sharing could also be spontaneous excited sharing, it emerged as a category of helping to resolve problems based on team members’ acquired experiential knowledge from working in the environment for many years and from learning from past mistakes. As team members grew in expertise individually, they built up experience and confidence in their ability to help by contributing to the team’s knowledge.

Repetitively, I observed this collegial desire to help by contributing information as a form of teaching and mentoring transitory team members. Here, established team members offered specific information they felt the learner needed to know for future use. Thus, unsolicited knowledge was spontaneously shared with students, which emerged from the data as a trigger for adding to the team’s general knowledge. This means that mentoring events in this category are not based exclusively on pre-set learning objectives or on established competencies for the development of knowledge and skills in the area.

For example, in a spontaneous unsolicited desire to teach during patient care rounds, I observed an established team member from one profession spontaneously share information with a student from another profession:

A student reported to his clinical teacher [established team member] that there were no log sheets available to assess fluid status. Before the clinical teacher could respond, another established team member from another profession shared with the student: “a PET test can be used to determine ultra-filtration rate”. The established team member showed a desire to spontaneously bring to light the patient-managed protocol that was in place as a directive for future care about ordering these tests. (Field notes, team A)

At another patient care rounds, an established team member spontaneously shared with her student the importance of a strategy to help a patient understand the need to keep passing
urine to help maintain the small amount of kidney remaining. While the trainee was presenting
the case the clinical teacher impulsively interjected this comment:

“What see how patients understand the need for peeing out fluid vs. dialyzing out when
we explain to them the possibilities. They understand once you explain it.”
Fellow: “Yes, I will keep this in mind for future care about prescribing diuretics.
It is so important to take time to explain things to patients.” (Field notes, team A)

Another example of a spontaneous desire to teach or mentor involved getting students to
learn about other team members’ roles. A physician and student (new fellow) came into clinic
and inquired about the pharmacist’s whereabouts. The established physician team member
wanted the student to observe a pharmacist’s assessment with a patient. The physician in this
example asked the pharmacist to show the trainee how to complete the medication sheet with the
patient. He went on to explain:

Learning to do the medication sheet is a good learning activity. I did it in my
other clinic, I got the patients to bring all the medication and I checked them out
myself. However, in this team the pharmacist is the expert in checking the
medication. You [trainee] need to learn how to do it … at some point in your
future this would be important to do in case you do … especially if you don’t
have a pharmacist on your team. (Field notes, team B)

I also saw well-established team members constantly take the time to join collegial
conversations in which experiential knowledge was shared. This kind of sharing made the team
members involved more aware of each other’s personal experiences. Collegial conversations rely
on the insights of team members about the situation at hand and, in effect, build an area of
specialization. One example I observed involved a discussion of restless leg syndrome during
patient care rounds. A physician said:
Some patients complain about cramps and restless legs at night. This can be caused by an imbalance in the levels of water and salt in the blood. However, I [physician] think that the restlessness is a sign of being under dialyzed in our patient population. (Field notes, team A)

During patient care rounds, a nurse joined a collegial conversation by sharing her insights:

You need to be aware of the number of times this procedure is done in dialysis patients. Colostomy causes an increased risk for peritonitis. (Field notes, team A)

The following example of spontaneous unsolicited collegial conversation is based on a team member’s experience during patient care rounds. The nurse shared with the social worker:

“I [nurse] think [patient] is depressed.” The physician agreed with the nurse’s feelings about this patient. The social worker indicated that this is good to know as she would put him on her list as a high priority patient. They made a plan to watch the patient closely and to bring him back to the clinic next week. (Field notes, team A)

Another example taken from patient care rounds is between a fellow and two nephrologists, with other team members listening. The fellow said:

“This patient has been on dialysis for less than six months and now has two gram negative infections.” Nephrologist one suggested that they look at her bowels, although the literature showed no strong evidence to look at bowels with these infections. The second nephrologist joins the collegial conversation to explain that she tried looking at the bowels with another patient and it went well. The first nephrologist then agreed with the second nephrologist to go ahead and try. (Field notes, team A)
After patient care rounds, a nephrologist [identified as a leader] showed her collegial desire to help by informally providing information about how to deal with the error in the calcium labs reports that month. She knew from experience that the error was one that could be managed by a simple calculation:

We need to subtract 1.5 to 1.8 off the ca values of assay errors. (Field notes, team B)

Again and again, I observed transitory team members with a collegial desire to contribute. In this example, the researcher standing near the ward secretary’s desk during the clinic explains to a fellow:

The Kidney Foundation peer support group person is available to patients to talk about social supports and to get information about dialysis and transplant topics. If the patients need to discuss their care they should call the nurse. (Field notes, team B)

I also frequently heard a well-established nephrologist helping in a collegial way by contributing information in saying to another well-established nephrologist:

If they [patients] are in a non-dialysis hospital they will need to be transferred to a hospital that has dialysis. What you do is find out if they have beds, and if no beds, you need to call the administrator on call and discuss the situation. (Field notes, team B)

6.3 Summary

As indicated in this chapter, team members’ performance and activities that place emphasis on sharing information, perspectives, opinions and insights, create a pool of collective knowledge for the team. This collective team knowledge pertains to the care of the patient
population it serves, and supports the teams’ daily functions, tasks, processes, and the overall
operation of the teams. Further, the development of general knowledge appears to be a product
of specific elements within these two healthcare teams. Team members gathered, organized, and
shared information based on skills, knowledge, and experience of being in the team. The creation
of collective general and clinical knowledge adds to the teams’ capacity to reflect on their
actions, deepen their understanding, and shift in patterns of thinking as a collective. Sharing and
creating knowledge as a team seems to result in a more effective and sustainable response to the
patients’ needs. Thus, the creation of collective knowledge can be viewed as a key concept in
team learning. Both questions asked and spontaneous unsolicited information contributes to the
creation of general and clinical knowledge. These together create opportunities for change and
advance team learning.
7.0 Introduction

In this chapter, I focus on the third broad theme that emerged from the analysis: how leaders adapt to enable team learning. Specifically, the chapter focuses on team learning in response to changes both from within, in terms of patient care, and without, in terms of changes in the environment in which the teams operate. In general, teams in an academic health science centre are specialized; each team provides a particular service to a target population. Each team performs several tasks, such as patient care, research, and education. Team members, considered experts in their respective health professions, complete these tasks as a collective, by applying individual knowledge to cases encountered in clinics. An understanding of the enablers shaping the context of team learning that emerged in this study provides a deeper understanding of the elements that make up teams A and B. The “enabling team learning” theme has three major aspects: bottom-up interprofessional team learning processes, top-down interprofessional team learning structures, and interprofessional links across the community. Each is discussed in the following sections.

7.1 Bottom-Up Interprofessional Team Learning Processes

Understanding team learning resulting in interprofessional bottom-up team processes requires a focus on the immediate work of the team. The way in which people interact affects the dynamics of team learning. The team leaders have adjusted their involvement to help develop good working relationships and connections, creating elements necessary for teamwork and cooperation among members on a daily basis. This first sub-theme, bottom-up team processes,
addresses how leaders make possible learning that embodies the collective praxis of the team’s interprofessional members in meeting the immediate needs of the patients. Leaders are driven by the day-to-day interactions and communications of the teams from the bottom up. This bottom-up team learning process refers to the interactions, relations, and exchanges among team members and how they apply theoretical knowledge as experts to patient cases. Bottom-up team learning process does not take into consideration the mandates and directives of the corporate leaders from the top of the academic organization. Team leaders and members are the key players in the creation of collective, specialized interprofessional team knowledge. This form of bottom-up enabling of team learning surfaced in two separate ways: interprofessional communication and interprofessional collaboration. Each is discussed below.

7.1.1 Interprofessional Communication as an Enabler of Team Learning

Interprofessional communication emerged as an enabler that places emphasis on creating a form of communication that works for the teams. The teams appeared to have developed definite but different forms of team communication, emphasizing different ways of working, creating collective knowledge and caring together for patients as part of everyday learning. For example, I routinely observed that members in team A communicated with each other at the start of the day and the nurses created a morning report for the other nurses, which was then e-mailed by the nurse in charge for the day to all other team members, based on the needs of the team. From my field observations:

The nurses’ morning report began at 8 a.m., where the night on-call nurse gave a report of all incidents that happened the day and night before the meeting. The nurse also communicated patient priorities, which helped in the organizing and scheduling of care for the rest of the day. The morning report [morning meeting] took place every day and included both verbal communication and written
communication about how events were unfolding and changing. The “nurse in charge” then proceeded to share relevant information with the other team members. (Field notes, team A)

Team A identified a method, via morning rounds followed by an e-mail, as a “bottom-up” method of communicating. A nurse leader who worked with team A and recognized the importance of this communication structure as a way to exchange information, described in her interview with me how she created a similar communication structure, but without a report, in another team with which she worked:

In [team X] you know, we do not have a formal morning report, but I stop by to find out what is happening. Usually mid-morning or early afternoon, so it is that communication interaction. You know, where feedback, discussions, and sharing could happen. (Transcripts, team A leader)

Similarly, a team B leader shared her feelings about having a communication structure that allowed the entire team to meet regularly, especially to get them to share what she referred to as the “undiscussables”. To meet this need to communicate, she attempted to foster regular interactions among interprofessional team members. The leader said:

We never get anywhere if we meet up every three months. Therefore, we schedule one every month to get to the heart of the discussion, to understand also what is not being discussed the undiscussables.... (Transcripts, team B leader)

In team A, most members were involved in the communication structure that helped to define the process of patient care rounds. For example, during team rounds, team members put aside time to attend and share information as a collective in a large conference room. Through this process, decisions were made, problems identified, perspectives challenged, care synchronized and centered on safe, effective patient outcomes. The communication structure
allowed members to learn from each other, not only about caring for the patient, but also about possible directions for interprofessional programs of research. Here is an example taken from team A rounds in which a gap in team information was revealed:

A nurse shared with others that she thought Ampicillin was stable for three days. Another nurse said that on its own it is good for three days, but it is only stable for twenty-four hours if mixed with sterile water. An MD asked: “how long is it stable for if added to dianeal fluid?” There was no answer ... the nurse indicated that we will have to call the pharmacist to find out. The first nurse added that this was something to consider in developing their research project. (Field notes, team A)

Again, at patient care rounds, a physician, nurse, and dietitian shared their experiences with diabetes in a way that created a form of bottom-up process for interprofessional team learning.

Physician: The endocrinologist’s biggest mistake is to put dialysis patients on glyburide. The nephrologists had to refer to practice outcomes.
Dietitian: The endocrinologist is a new staff member of the hospital; she is open to learning about diabetes in dialysis patients and accepting new patients.
Nurse: She is in the Diabetes Education Centre. She is willing to learn about the care of dialysis patients with diabetes. Can you co-sign the order for referral to the Diabetes Education Centre? They are willing to talk to you over the phone. (Field notes, team A)

As part of team B’s communication structure, patient care rounds did not always involve the entire team; sometimes only relevant team members came together around the care of specific patients. I understood from a leader outside of teams A and B, that staff sometimes choose assignments and duties with other teams within the organization. Whatever the reason, in
team B, I constantly observed communication among mini interprofessional teams within the larger patient care rounds. These teams had established nurse and dietitian members, but the physician, social worker, and pharmacist changed depending on the patient being discussed. It was common to hear two similar discussions on the same day involving different mini interprofessional teams discussing different patients with some common members and some rotating members. For example:

- Her kidney is below 15% of functioning and still decreasing with treatment. She will need dialysis soon, as we anticipated. (Field notes, team B)

- His kidney function was severely damaged at first, but with treatment improved to about 30% of normal, he was doing quite well. Unfortunately his damaged kidney has deteriorated, and he may need dialysis sooner than we expected. (Field notes, team B)

I did not observe morning report rounds in team B’s culture because they did not use this format to exchange information. Instead, they used only a written form to disseminate information, a style of morning report via e-mail to the interprofessional team. This report provided details of events that were unfolding with patients, including information about unexpected hospital admissions, emergency room visits, patients urgently needing dialysis, transplant phone pages, or patients who died. A ward secretary confirmed during my field observations:

- Yes, I am the one who sends the morning report via e-mail every day. (Field notes, team B)

Also in team B, I observed frequent mini-debrief communications with the nurse coordinators and ward secretary in which they engaged in brief conversations about the clinic
process among themselves, as opposed to doing so in larger departmental meetings. For example, during one post-clinic debrief, the ward secretary identified an issue:

> We need to have better transition during the clinic. The referrals to the chiropodist were high but she was only part-time; she was not available to see all the referrals during clinic. (Field notes, team B)

In both teams A and B, I repeatedly noticed structured communication time for members to dialogue and reflect about patient care concerns with each other. I also noticed constant unstructured communication taking place. These discussions often resulted in new decisions being made or plans being changed while the patients were still in the clinic. Unstructured communications often involved dyads and triads of team members, as in this example involving a nurse and physician:

> This patient has really low alb. What do we do?

> Send to dietitian to figure out if it is nutritionally related. (Field notes, team A)

And another:

> This patient is leaking dialysate, she was tested yesterday and there was no leak the last I heard.

> Ok, let us plan to retest her tomorrow and keep her in supine position today. (Field notes, team A)

Another form interprofessional communication observed involved informal conversations outside of clinic times. These informal moments helped to shape the team’s social cohesiveness, by providing an opportunity to make sure that everyone was feeling comfortable. On many occasions, I overheard:
How are we doing? Are we OK? Are we good to move on? (Field notes, team A)

As well as making sure everyone could meet and interact in a friendly way, I frequently observed that the bottom-up communication structure also had the potential to create blocks to interprofessional learning within the team. For example, a team leader described to me a situation that had the potential to cause a gap in learning:

Often in many professions there are standard policies, guidelines, and standards of care, and as a team you assume that everybody is working right in synchronism with team guidelines. However, things happen, and you know, things evolve, and discussions take place. Perhaps, for instance, we have patient care rounds team meetings once per week. If allied health staff is not present because of competing workload demands and informally we still make a decision to change the way we do something in the team. Therefore, it becomes new practice and the majority of the staff will know about it, but it is not conveyed in a more formal way or written up as a policy and procedures. So this could potentially cause some conflict because not everyone knows the changes. Sometimes you have certain members conveying by word of mouth the change of practice that either the manager does not know about it or it is not formalized in the policy. (Transcripts, team B leader)

In team A, I observed a decision that had the potential to cause team conflict and therefore create obstacles to team learning:

At the end of patient care rounds, when most members left, the nephrology trainee (fellow) completing his time with the team to go on to his next training rotation, informed some team members that the new trainee was on vacation, and that though he will begin next week, he will not be in clinic this week. The potential conflict is that not all team members were aware of this change and this could affect the patient care during clinic. (Field notes, team A)
The communication enabler that emerged from the bottom up allows leaders and members to identify the possible learning blocks that can be anticipated, as people come together to work as an interprofessional team. For example, a team B leader talked about the importance of accepting that conflict will happen when people come together and recognizing it as part of the team learning process:

Conflict is just another element of dynamics we have to deal with … but we have to hear the other side. Everybody has his or her own opinion. They do not have to all think the same way about everything. Conflict could be good but it has to be managed. It is part of the process of learning to be a team. (Transcripts, team B leader)

Other leaders talked about not only expecting but also accepting that in learning as a team there will be resistance, and that this is just part of interprofessional learning and working together. A leader recalled her experience with resistance in the team:

It is a bone of contention with some staff that they think they don’t need to attend an education session because they’ve been doing this role for their whole career—for twenty to twenty-five years. I have had some resistance from certain nurses more than others. I have had some resistance from all nurses actually, but to varying degrees. (Transcripts, team A leader)

Leaders talked about creating a communication structure within the team to enable team learning:

So very often just having folks … you know to sort of cool down, and listen to each side, if you will, or each explanation … and pull out really valuable points of each person’s arguments or each person’s point of view, and see if we can together reach a resolution or agree to disagree. (Transcripts, team A leader)
Some leaders had their own bottom-up strategies for structuring interprofessional communication as an enabler of team learning. In this example, the leader talks about creating a buffer:

I mean this nurse leader is also very enabling in that you know she is very receptive. That is another good thing about the way we work together, she sets a buffer so if there is a problem with staff performance, I don’t have to address it with the staff. Most often I let the nurse handle it. (Transcripts, team A leader)

7.1.2 Interprofessional Collaboration as an Enabler of Team Learning

The ‘interprofessional collaboration’ enabler that emerged places emphasis on how the team members come together through learning by collaborating. For example, I repeatedly observed a form of working together when team members within the same profession cooperate by covering for each other. A leader from team A said:

Because my colleague wants to double up someone’s calcium, you know I cannot say to not do it. I mean they can do what they want based on the patient’s assessment. However, if I am covering, I would do something different. I would speak to them afterward in order to coordinate with them. In this way, I am able to learn what their rationale might be or they could learn what my rationale may be for not doing it. In a way, we have to coordinate even within the same profession about how we are practising. (Transcripts, team A leader)

In team B, I observed:

The dietitian spent most of her time with a family that needed an interpreter, so the nurse provided the other two patients with a nutrition handout. The nurse indicated that the dietitian will call them to set up an appointment; however, in the meantime they could get started by reading the diet information sheet. (Field notes, team B)
Over and over again, I heard leaders talk about learning and creating learning opportunities through collaboration with other team members who were not from their profession. In this example, a leader [physician] from team A talks about relating to the way a nurse thinks and collaborates in the team:

I just hang on her [nurse] every word because she is so perceptive and so smart and I really want to know what she thinks. I could relate to her way of thinking as a physician and I think she knows that and she feels encouraged. She has really blossomed in that role. (Transcripts, team A leader)

I continually saw team members talk openly about dealing with others on the team. One team member made everyone in the room laugh when she said:

“You know when he is in a bad mood the minute he enters the unit. I stay out of his way.” Most members agreed that usually, if they left him alone for a while, he would eventually share with them what happened. (Field notes, team A)

In team B, again, I saw members relating to each other through the use of humour about a workload situation, when the ward secretary said:

I hope you brought your roller blades. We have twenty-five patients today and one fellow is away. (Field notes, team B)

Again, in team A, I saw the way a physician related to the nurse by using humour to indicate a heads-up about a potential concern with patients’ blood works results:

You better eat those chocolates; we have so many patients this week with high phosphorus levels [chocolate is high in phosphorus, patients should avoid them when phosphorus is high]. (Field notes, team A)
My observations also reveal team members relating to each other while eating together. At most education rounds, lunch was provided by external company sponsors. In addition, during interviews with team leaders, some commented on the role eating together played in team learning. In this example, a leader said:

We will provide food again. Feeding people is a good leading strategy. Even if it is just something light to get people to come in for a meal. (Transcripts, team B leader)

My observations also indicate that, often, when members paused to grab a bite (chocolates, fruits, etc.) from the community tray, they took the opportunity to chat about patients. For example, there is this exchange between a social worker and a dietitian:

“I really made some headway with Mrs. Adams’ [pseudonym] situation; her family seems to have a better understanding about the coverage available.” The dietitian replied that this is good to hear, she will discuss the importance of starting the nutritional supplements. (Field notes, team B)

I further saw that team members and even patients often brought in treats to share with others. Treats were put in the conference rooms of the nursing station and in central areas where most members congregated when not involved in direct patient care. I heard comments such as, “leave the caramel ones for [Ellen], she loves them,” evidence that team members know each other’s tastes, likes and dislikes in food; that they know or are learning about each other on a personal level.

Another leader from team A talked about the collaboration involved in team members working and practising together. The leader described what she observed when team members felt empowered to share information with each other after attending a workshop:
I actually hear members coming back and making alignments with others by saying, “that isn’t the way you should refer to a diabetic patient, you should instead say ‘a person with diabetes’.” Members come back to the unit and I can see the distinct evidence that they benefited from going to these workshops, I see them empowered and not only putting the principles of what they learn into practice, but also in coordinating and linking with other staff about how to perform them. (Transcripts, team A leader)

Repeatedly, I saw collaboration during education rounds when members from different professions interacted as a team. For example, I observed the social worker introduce a student to the team, and the collaboration that resulted:

“This student is here to observe for half a day. The emphasis of her learning will be on engagement skills.” A team conversation followed about exactly what “engagement skills” were. Finally those members came to the conclusion that it was much like learning communication skills. Some team members offered the student the opportunity to connect with them if she needed to. (Field notes, team B)

Collaboration was seen in the way team members partnered in providing care. I often observed members being willing and eager to jump in and help. I heard a dietitian on the phone:

That nurse is not here today; she is doing the flu shots and helping other nurses at the [Long-term Care Centre] clinic. She will be coming in late because she will be staying late with the patients. Is there something I can help with until she arrives? (Field notes, team A)

Collaboration can also be seen in the way team members acted collectively to mentor and teach students and trainees. In this example the nephrologist’s fellow is spending time with the dietitian to learn about her practice:
The dietitian explained to the fellow the rationale of the bioelectrical impedance assessments of body composition in the dialysis patients. (Field notes, team A)

I was initially given the status of trainee as well as researcher during my first day with team B. I experienced firsthand the collective mentoring and teaching of the team.

On my first day, team members, the physician and nurses specifically, were explaining treatment plans and assessment details with me. (Reflective notes, team B)

7.2 Top-Down Interprofessional Team Learning Structure

Top-down interprofessional team learning structure focuses on team functioning within the mandates of an academic health care organization. Therefore, there are top-down enablers of team learning. This second sub-theme, refers to aspects of the academic health care organization that have an influence on the team learning agenda of the teams. Top-down factors appeared to have less influence on the teams than the bottom-up enablers. The top-down structure takes into consideration the leaders’ recognition of the corporate initiatives, activities, structures and processes that are in place for supporting the teams, and the extent to which the top-down structure shapes and promotes team learning. Many leaders incorporate the processes for sharing, seeking, and sustaining knowledge within the diverse functions of the organization. Leaders were continually bridging the top-down directives with the learning and caring as a team. The leader quoted below emphasized patient care as the driver in considering top-down relations with his team:

I do not come in with the idea of doing the organization work. It is more about the patient driving our daily work. Not the organization per se. Our person in the corporate administration is very open and willing to listen and help us out, and at
the same time there are some directives that help to shape our work, but they are a small part. (Transcripts, team A leader)

On the other hand, another leader in the same team considered top-down relations to be key to her ability to create a team vision with the members. In order to do this, the organization leaders create structures of communication that are focused mainly on disseminating the corporate vision throughout the organization, to help guide the development of an individual team’s vision. The leader said:

A big part of what I think a manager or a leader does is look at the team vision. However, this can only be done as … as a team effort with everybody participating. Really everything overlaps, everything interlinks. I consider whether it is cost containment, whether it is quality, quality indicators or patient outcomes in our vision for the unit. (Transcripts, team A leader)

From this category emerged the concepts of the organization’s vision and practices, and how these influence team-learning activities on an on-going basis, on all levels of the organization.

7.2.1 Shared Vision and Practices

Both teams were able to succeed in their constant efforts because they were able to create a specific vision for the team within the overall construct of an organizational vision. The shared vision within the teams created cohesive structures and provided opportunities to enhance team learning as a collective. Although the academic health care organization had an overarching vision with which both teams were aligned, the members of each team frequently worked at how they could specifically promote the organization’s vision within their teams under the direction of the team leaders. One leader said:
So we look at the big vision that had been decided for us by the corporate team. Then we decide on the goals for the program and our smaller teams as the next 5-year plan. Then we discuss with the staff to see what they think are the major things we should be looking at, for example, safety, or certainly quality initiatives with respect to our program. (Transcripts, team B leader)

Another leader in team B went on to describe the process involved in the top-down structural cohesiveness of the team. She said:

One thing that we do before the actual meeting about our team’s goal setting is to send everybody a sort of pre-package. So that would mean … take it to your staff and professional members and ask them what the three priorities are for the year. Sometimes this would be team-specific members, so having a nurse, nurse coordinator and a physician decide together, and other times it could be professional-specific, so having all the dietitians for example, work on what they see as the three priorities for the year. (Transcripts, team B leader)

Similarly, a leader from team A described the process of scheduling an entire day with upper management and team members to learn about the organization’s vision. The leader further described the process of translating this into departmental goals and how these shape the team’s learning goals. The leader from team A noted:

We have an annual goal and objectives day, a retreat day we attend. In addition, our front line staffs are requested to attend with us. And we hear, usually the format is that we hear some presentations from upper management to realize the visions and goals and objectives of the organization. We are then given time, and then after that retreat day, we actually take … usually take more time to work on what our division’s goals and objectives should be. Beyond that, we work on our unit/team objectives. It should be a cascading, I think that is what they call it, effect, so that the goals and objectives of each unit should be similar and should mirror the hospital’s global vision. (Transcripts, team A leader)
Although the leaders had a vision for involving all team members in the top-down structural cohesiveness, sometimes it was not possible, as a leader in team A observed:

I think that, in figurative terms, all team members being at the table, you know getting them involved in the planning, but it does not happen. It does not happen. Our social worker just parachutes in when it is necessary to do patient care. It is hard to get them in planning. (Transcripts, team A leader)

If all members were unable to meet at the same time, the teams created a format whereby members would have the opportunity to contribute at other times. Here a leader in team B talked about what happened when members came together and how the process worked:

And so when they come to the table and then you know sort of pyramid, in the smaller group will pull out all the goals and see what are in common, what are really high priority goals and we will put everybody’s ideas down and from there we set the goals for our program. (Transcripts, team B leader)

One leader talked about having a shared vision that is not just as an enabler of learning, but it also created a sense of pride and comradeship within the interprofessional team and the rest of the organization. Teams were asked to share stories about patient care or team success with corporate leaders to be distributed through the organization’s local monthly newsletter. She explained:

Initially they did not want to submit stories. If everybody and every unit in the hospital submits a story except our unit, they are not going to like that either. They take pride in their care, so it is a pride thing as well. Therefore, they made a decision to submit a story and this decision was made without my involvement. (Transcripts, team B leader)
Because of top-down structural cohesiveness, the team leaders were continually able to access opportunities from within the organization for team members to learn as a team. As I observed:

The nurse in charge for the day announced to all team members at the end of patient care rounds that a training session will be available to everyone on a day when there will be no clinic. This way they could get involved as a team. (Field notes, team A)

On another occasion, a leader announced:

PCC [patient-centered care] sessions will be available in four weeks; they will come to the unit so that we will learn as a team that works together with the same patient concerns. (Field notes, team A)

Here a leader talks about the top-down model of influencing learning in which all team members are required to attend a three-day course about enabling patient centered care within the context of an organization. A leader in team B said:

The bottom line is they have to go. You know … we cannot really argue about this. One of the nurses had to miss one of the three days of the course because she was sick. She had to repeat the entire three days once she was well. (Transcripts, team A leader)

In addressing top-down learning, a leader in team B described the strategy behind sessions designed to bring members into alignment with the organization’s vision.

You have to put different words on things that they truly believe in to try and increase understanding. They just have developed a different attitude towards things. Over time, everybody has changed somewhat over the course of the last
year ... Then we will all be in alignment with the hospital’s vision. (Transcripts, team B leader)

In learning to be a team in an academic health care organization, once team visions and goals are identified and set, the team develops indicators by which to measure the quality of outcomes and whether goals are being met. In this example, a leader stressed the importance of working and learning together using the top-down directives to develop specific quality indicators:

Together we identify the quality indicators. So make sure that the members that have identified the specific indicators, find a process to measure them, and make them happen. This is a very interdisciplinary approach. (Transcripts, team B leader)

Similarly, a leader in team A observed:

Indicators are agreed upon on by all the professional team members on a regular basis within various quality subcommittees and quality indicators meetings. (Transcripts, team A leader)

Missing team members are offered the opportunity to participate in decision-making or hear about the vision, goals, and indicators through e-mail communication. To discuss these with other team members on a more formal basis, team learning sessions are scheduled. In this example, a leader in team A noted:

On a more formal basis, there is an education forum for everyone that may not have been at the planning process. Often out of a discussion we will come indirectly at patient satisfaction or the staff satisfaction issue that might evolve and need some more follow-ups. (Transcripts, team A leader)
The following are examples of the use of indicators that I observed during a mock accreditation meeting of team A:

Our peritonitis (infection) rates of our patient population have decreased and are now better than the benchmark. (Field notes, team A)

The team talked about a decrease in foot problems in patients with diabetes:

We had 10.9% of patients with diabetes develop serious foot problems, which was lower than the rate of 12.5% the previous year and lower than the organizations’ target of < 25%. (Field notes, team A)

On some indicators this team had results better than national levels. For example:

The patient survival rate for an adult peritoneal dialysis patient was 40% at four years compared to all other comparable hospitals in Canada at 35%. (Field notes, team A)

As well, one leader linked the achievement of better patient outcomes as a form of learning about team performance with staff and team satisfaction. The leader from team B said:

The better it is for the patient outcomes and hopefully staff will feel better satisfied that they are achieving good results for the patients that they are caring for. (Transcripts, team B leader)

A leader from team B talked about members recognizing top-down structural cohesiveness as part of creating a culture for team learning:

I think the members really recognize that these indicators, also known as continuous quality indicators, are the valuable reviews of what was going on in their clinical program and how they could improve. You are bringing together allied health, some clerical, nursing, and the medical folks with different reporting structures within the organization. (Transcripts, team B leader)
7.3 Interprofessional Links across the Organization and Community

The third emerging idea, “interprofessional links across the organization and community”, refers to the teams’ connections within the organizational community and the outside community, as an enabler of team learning. Leaders identified links which support team learning and interprofessional practices.

Both teams A and B expressed a need for more links to outside organizational and community support to enable interprofessional team learning. Links across the organization have large impacts on how the team functions and learns as a collective. Teams recognize the need for greater expertise in certain areas of caring for the patient; however, without organizational support, this expertise will likely not become available. One leader talked about a need for help in a specific area:

We have identified that our patients need psychiatric support. You cannot certainly have this disease and change your lives like this without feeling stuff like depression at some level. It is normal. I don’t have that body of knowledge in the team; I don’t have the skill set in the group to deal with this issue. One thing that we would love to see is somebody with that skill set to be able to help our patients. A full-time psychiatrist would be the ideal. (Transcripts, team B leader)

A leader in team A talked about once having the organizational support—no longer available—that enabled team learning and interprofessional practice. The leader identified the need to have the right resources and support for the team for providing patient care:

You know our hospital is structured in such a way that the social worker is not a sort of a prominent person in our team [we lost that person]. I mean that if there is a problem, we will consult one to come up, you know, but otherwise they are sort of much less involved than they used to be. (Transcripts, team A leader)
A leader in team B also stressed the need for relevant staff to be available in order to enable learning within the team. Because members are also involved in other tasks within the organization, it is usually difficult to get all the members to educational or team meetings. As the leader reflected:

We do not get everybody at the table. I mean the social workers. A long time ago when I was at [another institution] the social worker used to come regularly. They do not come that much anymore because of cutbacks. They are too busy I think. They are rarely at the meetings. … The only people at the table are the nurses, residents, physicians, fellows, and dietitians. I mean the chiropodist is not there either because she is only one person. The physiotherapist is not there because of other tasks. So we have most but not all members at the table. (Transcripts, team B leader)

It seems that links across the organization create opportunities for members to learn about what is happening in other areas of the organization and to further disseminate this information so that most team members are aware of the situation. In response to the need for the team to link with various other teams and professions, mechanisms were created to facilitate interacting and learning within the organization. For example, in team A, a leader talked about something happening that is shared with in the team:

Suddenly a few months ago we learned that our OR time for putting in catheters was just cancelled, all of them. Knowing this we rallied together, [nurse leader] and I. It really was not at the other team members’ level but [nurse leader] and I worked a lot on that. We shared the information with the others so that the entire group was aware of the situation and in the loop. (Transcripts, team A leader)

In addition to learning within the same organization, the teams in this study had many links outside of the organization, in the community, all of which were useful in expanding their
expertise. These links were important in meeting the needs of the patient population and proved to be enablers of team learning. An example captured during the consent phase with team A comes from the personal narrative of a senior nurse who was excited to discuss the links the unit had with the community. A long-term care facility, for the first time, was collaborating with the team to care for elderly dialysis patients in a nursing home setting. The nurse described the team’s link with this facility:

This team has strong links to the community and serving the needs of the community… An example is our collaboration with the Long-Term Care PD site. We now have ten patients at this site. Many team members go over to this facility to care for the patients and collaborate with the O’Neill staff. (Field notes, team A).

Another example of a link to the community is links to chronic care facilities. I overheard a member of team A say to a student:

We have community partners. I have a list of other partners like the community care access centre and other chronic care facilities. (Field notes, team A)

Members of both teams A and B recognized the need to improve communications with family physicians in the community. I often observed team members explain care to trainees. For example, in team B a member says:

Right now the communications between our unit and the family physicians are not where they should be. We need to have a process in place to increase the communication and sharing of patient information. …. Well, right now it’s not anyone’s specific role to write letters. We need to refine the process and allocate the time to have it done on a routine basis by the staff physicians. (Field notes team B)
In team A, I often observed conversations about coordinating the ordering of certain tests with the family physician. Here a nurse starts the conversation during patient care rounds:

“In my experience, we should coordinate blood work with the family physician. We need to coordinate timing of the blood work.” A nephrologist close by agrees to write a letter to the family physician about this issue. The nephrologist also suggested that we add the request to have family physicians write prescriptions for blood pressure. (Field notes, team A)

I also noticed that representatives from the community were part of both teams’ daily learning. In this example, a leader talks about the team A’s link with the Kidney Foundation of Canada with respect to its attendance at the patient advisory council meetings. The leader said:

At the patient advisory council meetings, we involve the Kidney Foundation representative to discuss issues like transplants, depression, and exercise. (Field notes, team A)

In the following quote, a leader from team B describes the efforts of the team to improve its practice by reaching out to other professionals and to legislators:

One of the issues identified is that the nurses need to dispense medications at satellite centres when pharmacists are not there. We are looking at a way to authorize nurses dispensing with a delegated pharmacy act that can actually cover them under certain circumstances. Both pharmacy and nursing professionals are working on this. Once it is authorized, and there are some parameters to ensure that it is within the standards of nursing practice, we will support the delegated pharmacy act. (Transcripts, team B leader)
7.4 Summary

As this chapter indicates, the two well-established teams, A and B, have dominant positions within the nephrology department of the academic health care organization. The enablers of team learning involve bottom-up processes that occur in day-to-day interactions at the individual and team level, top-down structures as a consequence of being in an academic health care organization, and links across the organization and the community. Overall, the interprofessional team’s ability to reflect on its experience from the top-down and bottom-up perspectives created conversation spaces that enabled learning shaped by the role of the leader. To enhance interprofessional team learning in clinical practice, clinicians as leaders must recognize and adapt to understand the links between the macro (top-down) structures that influence behaviour and the micro (bottom-up) processes that occur in the day-to-day interactions at the individual and team level.
8.0 Introduction

In this chapter, I discuss the research findings and explore theoretical considerations related to leading interprofessional team learning. The first Section 8.1 of this chapter provides a summary of the study’s main findings to help frame the subsequent discussion. The second Section 8.2 discusses the thesis main argument in relation to the theories mentioned above. The third Section 8.3 presents an overview of the central argument of the thesis, which is expanded upon in two subsections. The final Section 8.4 outlines how the study contributes to the interprofessional education literature. The chapter aims to provide insight into the central factors involved in leadership and development of interprofessional team learning environments.

8.1 Summary of Research Findings

As outlined in Section 1.4, the overarching aim of this study was to explore leadership and interprofessional team learning in well-established specialist teams in an academic health care organization. The four guiding objectives that frame this research were:

1. To examine the relationships, perceptions, and experiences of team members identified as leaders of team learning;
2. To explore the value of knowledge that is gained from day-to-day conversations in shaping the interprofessional team learning agenda on a day-to-day basis;

3. To observe the phenomenon of leading team learning in well-established, outpatient teams within the organizational context of an academic health care institution with students and trainees;

4. To further our understanding of the constructs of interprofessional team learning.

As described in Section 3.2, I employed an ethnographic approach to explore in-depth, the nature of leadership and how leaders shape the learning agenda on a day-to-day basis. As Chapters Five, Six, and Seven detail, the findings suggest that members with a passion for leadership were able, through their self-awareness and confidence in themselves as role models, mentors, and clinicians, to infuse interprofessional team learning into their everyday practices. Encouraged by their leaders, the study indicates that team members share information based on their experience with each case, either informally or formally. Through their ongoing actions and interactions, leaders, trainees, and team members are able to openly question each other about their assumptions and possible misconceptions, while advocating for the patient. Further, as a result of their leaders’ ability to adapt and support others, individuals are able to pool information and engage in dialogue and reflective practice, which appears to lead to members’ improved awareness, understanding, and recognition of patterns of practice. This, it appears, creates
a collective body of shared knowledge and team expertise that is then transferred to students and trainees in practice. Hersey and Blanchard’s (1977) theory of situational leadership and Lave and Wenger’s (1991) situated learning theory are employed in this chapter to help illuminate these findings.

As presented in Chapter Five, the findings suggest that members emerged as leaders in the two teams studied, by developing an understanding of themselves as health care professionals through self-awareness, self-confidence, and an understanding of others. More than one member in a team emerged as a leader by taking on the role of process experts, providing care, generating change, motivating, and mentoring to create an interprofessional team learning environment. These findings highlight the team leaders’ behaviours in shifting roles and further, in adapting their leadership styles to meet the team’s needs. Most leaders adjusted their working relationships within the team as necessary, revealing that the ability to lead effectively involves a deep understanding of how to facilitate the working together of a diverse group to meet the needs of a common patient caseload.

The findings outlined in Chapter Six suggest that creating new knowledge in well-established, specialized, interprofessional teams involves day-to-day conversation, building relationships, increasing awareness, and developing the social milieu among team members. Collectively created new knowledge is then transferred to new student and trainee members. This collective team knowledge pertains to the care of the patient population it serves, and supports the team’s daily functions, tasks, processes, and overall operation. Team members were able to explore conditions for sharing and creating collective knowledge and team expertise through dialogue while maintaining the
diversity of the team. The leaders developed an environment where members could solve problems through spontaneous and skillful application of knowledge, as well as by using techniques of reflection during and after interactions with the patients.

Outlined in Chapter Seven, team learning was enabled in the same context in which new and collective team knowledge was applied. Enabling team learning involved the leaders’ ability to adapt and change in response to the situations in which patient care decisions were made and carried out. Clinicians as leaders understood the links between the macro structures (top-down, corporate directives) that influence behaviour and the micro processes (bottom-up, front-line issues) that occur in day-to-day interactions, at the individual and team level, which allowed them to adapt their leadership to meet the needs of the team. Team leaders’ roles were shaped by and depended on relationships with other parts of the organization as well as links with the academic and social community.

Overall, the findings of this research constitute a new contribution to our knowledge of leadership and team learning:

- The study findings suggest that team members share information based on their experience with each case, both informally and formally. They discuss what to do about their patients, taking the whole person into consideration.

- Over time, individuals within the team, through pooling of information, ongoing team interactions, dialogue, and reflective practice, gain awareness, better understanding, recognition of practice patterns of challenging patient-management activities; that is, they create collective knowledge and increase team expertise.
• The teams’ reflective practice creates an opportunity to embody unique professional knowledge, which is reflected in the members’ assessments, recommendations, and behaviours, in spite of their diverse memberships.

• Eventually, through actions and interactions, members are able to openly question other team members, question their assumptions, clear up misconceptions, and advocate for patients.

• Leaders are able to support members’ diversity, and deal with the challenges of incorporating team members’ individual knowledge, building on each other’s contributions through ongoing connections and relationships - not only with professional members but also with staff, students, trainees, researchers, and volunteers.

• Leadership is seen as a process linking individual and team reflection. The leader’s self-awareness is pivotal to him or her being able to understand and react to situations in which collective team expertise can be increased.

8.2 Central Argument of This Thesis

Academic health care organizations are challenging, complex places. In order to work well, they require relationships among workers to be collaborative, not hierarchical (see Section 2.4.3). The well-established teams described in this study comprise health care professionals, staff, and students with a mixture of skills and expertise working together in an environment in which they can know and trust each other, while caring for a common patient population (see Section 4.6). Leaders, through their ability to adapt,
shift, and adjust behaviours, are able to enhance interprofessional team learning in clinical practice by affecting the way members deal with information, knowledge, and decision-making and making them accountable for their performance in providing quality patient care. Interprofessional team learning creates a synergy among team members that seems to generate situated learning. Interprofessional team learning emerged as a concept that connects and transcends profession-specific education and work-place learning.

Based on the research findings, this thesis argues that:

1. Team leadership, as a process, affects the social context of interprofessional team learning relationships, interactions, and activities within the complex culture of an academic health care organization.

2. Team knowledge embodies the collective praxis of its members. The members inform the role of leading learning in the social construction of meaning, through conversation that is dialogical in nature and reflective in practice.

3. Effective team leadership ensures the transfer of collective knowledge to students and trainees. Effective leaders also help members deal with the challenge of learning how to be an interprofessional team member within a well-established, specialized health care team as a community of practice.

4. A leader who learns how to use team learning to enable the creation of new and collective knowledge will be able to create a learning experience for interprofessional students, trainees, and team members who are focused on interprofessional practice and care.
8.3 Using Theory to Illuminate the Issues

Leadership and learning theories, introduced in Chapter Two, Sections 2.1 and 2.3 are employed in this section to help illuminate the findings that emerged from the study. The search for theories was restricted to these two bodies of literature as they offer the richest seam of work that helps to explain leadership in the context of well-established, specialized teams within the structure of an academic health care organization. Of the theories explored, the following perspectives are key to this study:

8.3.1 Situational Leadership Theory

Hersey and Blanchard’s (1977) theory of Situational Leadership, as discussed in Chapter Two, is employed to help understand the nature of leaders who steer interprofessional team learning in practice. Situational Leadership theory, originally called contingency theory, explains how leaders adapt to different situations to fulfil different needs. Underpinning this theory are the assumptions that there is no single “best” style of leadership, and that effective leadership involves adapting one’s style to the team’s development level. According to Situational Leadership theory, leaders diagnose the demands of their situation and adapt accordingly. “The theory is based on the amount of direction (task behaviour) and the amount of social-emotional support (relationship behaviour) a leader must provide given the situation and the level of maturity of the followers” (Hersey & Blanchard, 1977, p. 1). Situational Leadership theory is useful in understanding how emergent leaders steer interprofessional team learning in practice. It is specifically useful for understanding the antecedents, processes, and emergent states that facilitate specialized, interprofessional team learning teams. An
emerging area within this research is the role attributed to Situational Leadership in facilitating team learning.

**8.3.1.1 Applying Situational Leadership theory.**

As outlined above, leaders are central to fostering an environment that supports team learning by focusing on the day-to-day talk, relationships, social interactions, and reflective practice of team members. They, in effect, support the creation of new, collective knowledge, which is then transferred to new members. The maturity of a team in this context depends on the members’ ability to take responsibility for both caring for the patients and developing and maintaining the social milieu of a well-established, specialized team. The finding that leaders adapt their style to meet the needs of the team can be understood through the lens of Situational Leadership theory (Hersey & Blanchard, 1977). As noted above, according to Hersey and Blanchard, situational leaders evaluate the needs of a situation, and then adapt their leadership style to meet those needs. Hersey and Blanchard divide leadership styles into four categories: S1 (directing or telling), S2 (coaching or selling), S3 (supporting or participating) and S4 (delegating). These can be placed on a continuum from tight to loose support and direction. In this study, participants adapted their leadership styles to meet the various clinical, research, and mentorship situations encountered, and to the team’s level of commitment and its confidence in dealing with these situations. The leaders, by adjusting their styles, helped the team to progress through various stages of learning how to deal with diverse situations. In exploring the daily functions of the team, four important findings emerged regarding the leaders’ activities in relation to situational team leadership as a process: the integration of the leaders in the daily clinical activities of the
team with an adaptive leadership style; through directing, coaching, supporting and delegating. Each of these findings will be elaborated below.

**Leaders choosing a directing style to adapt to the situation within the team (S1):**

Although leaders in this study engaged in clinical functions, and were integrated into all the daily activities of the team, they periodically needed to use a directing style, with members (Sections 6.1.1; 6.2; and 7.1). These leaders shared patient load and were responsible for individual patient care clinics. As a result, other team members saw them involved in the day-to-day activities on the front line by helping the team find solutions, problem-solve, and deal with various team situations. The S1, telling or directing style within this context was used to help focus the team’s activities. Leaders generally recognized when they needed to direct; for example, in the section 6.2.1, “Expression of a Concern”, leaders at times directed others, as when the team had a problem with the electronic patient records and the leader told others to contact the helpdesk to resolve it.

**Leaders using a coaching style within the team (S2):** Despite the fact that the team leaders in this study participated as members in co-creating the structures for learning, they were also seen using a coaching style to guide professional and non-professional members towards collective learning. That is, the leaders coached members, not as formal representatives of the organization within the team, but rather as representatives of the team in learning as a collective (see Section 7.1).

In addition, leaders adopted the style of the coach, S2 style, in order to help team members (professionals, staff, volunteers, students, trainees) develop confidence and commitment to learning how to be effective in a team context by better understanding how their own and others’ backgrounds and experience shape their actions, beliefs, and
Values (see Section 5.2”). **Leaders using a supportive style within the team (S3):** As integrated members of the team, the leaders in the study not only participated as clinicians, but also adopted a supportive/facilitative leadership style to model both teaching and learning (see Section 5.1.1.3). From a teaching perspective, they were open and willing to teach and mentor others, and made interprofessional mentoring an integral part of their own and the team’s mandate (see Section 6.2, subsection 6.2.3). It is important to note that these leaders also modeled the capacity and willingness to learn from others. They engaged in day-to-day learning with the team and showed respect and caring about learning from others (see Sections 5.1.1.3; and 5.1.1.2) Supporting others not only led the leaders in this study to attach importance to the input from other members of their team, but also fostered a team environment in which members felt trusted and valued in the decisions they made. Leaders encouraged members to remain open to alternative approaches to caring by learning about what each other does and to build a body of shared experience and knowledge (see Section 5.2, sub-sections 5.2.1 and 5.2.2)

**Leaders using a delegating style within the team (S4):** Leaders in this study were able to support members’ diversity, and deal with the challenges of incorporating team members’ individual knowledge by helping them to build on each other’s contributions through ongoing connections and relationships, not only with professional members but also with staff, students, trainees, researchers, and volunteers (see Section 5.1.1). Using delegation requires a recognition of the diversity of the team while creating a sense of belonging in each member.
Leaders recognized when they needed to delegate in an S4 style. For example, in the section 5.1.1.1 “Value of Developing Trust”, a physician leader, who is legally responsible for all orders written, asked a pharmacist to write orders for the patients showing trust in that team member’s ability. Overall, the team leadership that emerged in this clinical study context involved leaders engaged in adapting their leadership styles to meet the team’s needs and situations (Sections 6.4, and 7.4). Leaders evaluated a situation, and then adapted their leadership style to meet its needs, with the purpose of solving team-related problems and improving team-related functions. That there was on each team more than one leader doing work in service of the team, while adapting their styles to the situational needs of the team, supports the idea that leadership is a process, not a position.

Another way of understanding the leadership practices of emerging team leaders is to look at the organizational context in which team learning is enabled, which is discussed in Section(s) 7.1, 7.2, and 7.3. The success of the teams depended not only on the leaders being able to adjust their styles across a continuum from tight to loose support and direction depending upon the situation, but also to adjust team functions and structures in response to situational factors arising from being in an academic health care organization in the service of the team. These situational leaders were enabling learning rather than controlling learning. Looking at the roles that team leaders were expected to fulfil in order to achieve the desired patient care outcomes, it was apparent that, as well as acting as clinician experts, mentors, and administrators, they also acted on behalf of the team in maintaining organizational and community links in order to provide opportunities for team learning and shape the team context (see Section 7.4). Leaders also interact with
team members as learners within specific situations having to do with, for example, improving a patient’s quality of life.

Although an academic health care organization may be considered hierarchical, in order to enable team learning, the team as a whole needed the contributions of all of its members, including the patients. In this study, while the leaders exhibited both task and relationship behaviours as clinician and mentor participants of the team, they stood out because the team thought of them as leaders. The findings further suggest that few of the leaders identified by team members had formal designations as managers, and some had given up managerial positions in order to become members of the team.

The leaders giving up managerial positions stepped out of the corporate structure of the organization and gave up their status in the hierarchy in order to participate fully in both clinical and team learning activities.

A key outcome of this study is that there is a distinction between leading as a process and leader as a position. Participants in this study demonstrate leadership as teaching through modelling, which guides their actions in relation to others. In this situation, one or more members provided leadership to the team as a whole. Leaders are people with diverse skills and from different professions working together, and recognizing that leadership involves providing appropriate guidance and support to the team. For example, leaders know what others are capable of doing to achieve patient care and meet team needs (see Sections 5.2, 7.1; 7.2 and 7.3).

In contrast to most other corporate leaders, the participants who emerged as leaders enabled team learning informally, within the context of specialized, well-established teams within a formal organizational structure (Section 7.2). Instead of
having authority derived from their position, their authority came from their ability to facilitate learning with others as a team. Their leadership styles, values, awareness, and self-confidence lead others to accept their leadership. This form of leadership supports Hersey and Blanchard’s (1977) shift away from the traditional, view of leader based on position and authority; rather leadership is regarded as a process rather than a position. In this study it was found to be based on the following characteristics:

- Leaders appeared to emerge as a result of their intrapersonal skills such as self-awareness, self-confidence, openness, commitment, and knowledge (as discussed in Section 5.1).

- Leaders used their interpersonal skills such as skill in building relationships, respect, trust, caring, dealing with tensions, and promoting communication and cooperation to create a strong social milieu (see Section 5.2).

- Leaders may adapt their leadership style based on the extant community relationships and organizational links, (Section 7.3).

“Leader” is a word used in daily language. In most instances, it refers to a person who is in control or gives direction and guidance. The everyday definition of “leader” involves descriptions of traits, qualities, or behaviours that differentiate leaders from others. In this study, members were asked to base their judgments as to who the leaders in their team were on observed behaviours, to identify those who have high levels of emotional intelligence and interpersonal skill in dealing with others in the team. Leaders are those who are role models, mentors, and advocates for focusing on team tasks as well as on the social development and well-being of team members. Therefore, while leaders
with top-down authority engage in management in order to realize organizational vision and goals, it is important to note that all leaders (top-down and bottom-up) in this study were involved in a stable situation of frontline care, mentoring, coaching, and role modelling a willingness to learn from others on the team. Bottom-up leaders were frontline staff motivating and inspiring others by educating. All leaders were engaged in building team commitment and self-confidence to enable the creation of collective knowledge in a collaborative environment. More important, neither top-down nor bottom-up leaders were seen as authoritarian; instead they were viewed as leaders motivating their teams to be knowledge experts and become authorities in their area of practice.

All professional members in the study teams were deemed competent to participate in clinical practice either by professional regulatory bodies or by their external education/academic supervisors. Trainees and students entering these teams came with academic knowledge and academic assumptions. The teams, therefore, involved diverse learners with various levels of experience, from novice to expert. With trainees and students, leaders were direct in their approach, providing what team members need to know in practice. At other times, leaders supported team members’ taking the initiative to learn something new on behalf of the team that they felt was important to share with the rest of the team.

In this study, leaders helped members (interprofessional, staff, volunteers, students, and trainees) develop team confidence and a commitment to learning how to be a professional in a team context. This process of leadership develops the social context of
interprofessional team learning relationships, interactions, and activities within the complex culture of an academic health care organization.

Based on the findings from this study, the success of the teams, it appears, depends not only on the leaders as participants doing real, practical work within the team, but also more on the ability of the leaders to adjust their leadership style and behaviour as necessary.

8.3.2 Situated Learning Theory

Situated learning theory, introduced in Section 2.1, takes a constructivist approach to understanding the nature of learning activities within the context of teams in this study. Situated learning theorists Lave and Wenger (1991) suggest that social interaction is a critical component of learning; learners become involved in a community of practice that embodies the beliefs and behaviours to be acquired. “Communities of practice are groups of people who share a concern, a set of problems, and a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger, et al., 2002, p. 4). Using Lave and Wenger’s (1991) theory of situated learning, the findings of this study suggest that leaders help members gain meaningful learning experiences and form their identities within the context, culture, and activities of interprofessional team interactions. This study also provides an example of situated learning as, “best modeled in terms of the organizational connections that constitute a learning network” (Glynn, Lant, & Milliken, 1994, p. 56). Here team learning is co-constructed: team members create new knowledge collectively within a community of practice. Situated learning theory and the community of practice model are useful for understanding the nature of developing interprofessional team learning in practice.
8.3.2.1 Applying situated learning theory

To understand how clinical team leaders work within the context of an academic health care organization and to understand how they incorporate interprofessional team-learning activities into the work of the teams, the concept of communities of practice, described by Wenger (1998), is useful.

**Context:** Teams in general, in an academic health science centre, focus on areas of specialty; each team provides a different service to a target population. The specialized teams under study were initially formed by health care professionals interested in a particular area. They were later joined by others who were seen as knowledge experts in areas that complemented the knowledge of the existing team members. In the teams, most team members have been interacting with each other for many years, and have developed the social qualities of trust, commitment, and caring for each other and for their patients (see Section 4.0). These teams have the common collegial values of providing high quality patient-centered care, linking with others outside the teams, and learning together. This is an ideal example of a community of practice, a community in which people who share a passion for something, learn together through practice to perform better (Wenger, 1998). Therefore, based on these characteristics, the social milieu of these well-established, specialized teams are contexts for situated learning. Discussion with team leaders supports several properties in common:

- there are small number of members;
- members are experts in different aspects of the field;
- members have a range of skills; and
members know and trust each other.

Leaders confirmed in their conversations that the teams have evolved over time into genuine communities of practice as described by Lave and Wenger (1991). As is typical of health care teams, the multifaceted emphasis on patient care is generally hierarchical in structure and tends to create power-over positions for many team members (see Section 2.3.2). Having a corporate leader is not enough to enable socialization within the teams; it is the social relations of leaders who are participants doing frontline work, while adapting their styles based on the needs and situation of the team, that is required. In this sense, dealing with the challenges created by the hierarchical structures in an academic health care organization encourages leaders to foster specific relationships within the team. “It takes leadership inside the communities to keep questioning the status quo, see what is possible in the domain, connect the people who care about it and help develop an effective practice together” (Wenger et al., 2002, p. 158). The “teams as communities” concept helps to explain how leaders are able to develop relations and connections to create well-established, specialized interprofessional teams that function in the complex context of an academic health care organization.

Further, the teams are successful because of having situational leaders who facilitate the development of the teams’ reflective practices. A team’s ability to engage in reflection depends on members being able to participate in creating and reflecting on top-down structures and use these as opportunities to enhance the interprofessional team learning as a collective. Although the hospital in this study had a vision for overall patient care outcomes that guides the teams, the leaders of the teams promoted shared team learning in creating collective functioning units. Operating within the context of an
academic health care organization meant that learning is influenced, to a certain extent, by corporate strategy and structure, as well as the teams’ social milieu members’ enthusiasm, and practice context had a greater influence on team processes (Sections 4.1-4.6). This study highlights the complexities involved in developing effective team learning practices together, as discussed in Chapter Seven, to enable team learning while operating within the context of an academic health care organization.

**Culture:** Leaders, members, and student/trainees in this study were able to acquire knowledge embedded in the specific culture of the interprofessional teams. This study confirms that the teams’ learning cultures arose from the social interactions and actions of more experienced members mentoring students and trainees (see Section 4.5). Diverse members representing nursing, medicine, physiotherapy, social work, dietetics, and others differ in numerous ways, but are cohesive through the shared goal of doing what is best for the patients. Perspectives on team learning, as discussed in this study, involve leaders building informal and formal connections with members who share the desire to create and transfer collective knowledge about caring for patients (see Sections 6.1 and 6.2). By participating in the interprofessional practices of the teams, members learned by trial and error, balancing evidence-based conclusions with clinical judgments, and gaining insights from team dialogue and reflections exchanged among members. For example, team members learn when to order blood work for patients, or how to write a peritoneal dialysis prescription correctly (see Section 6.2.1, and 7.3). Their caring for patients and social interactions reflects team members’ identity. Collective knowledge has unique effects; the members who create it are motivated by it, they can apply it, and
they can teach and mentor others about it while continuing to build on it (see Sections 6.1 and 6.2).

Developing an interprofessional team culture in which members teach and mentor others leads to the sharing of embedded knowledge, such as the need to record a patient’s allergies on specific forms. Here, more experienced participants mentor newer team members and trainees through their adaptive leadership approach (see Section 6.2.2 and 6.2.3). Most trainees, students, and new members of a health profession entering an academic health care environment join already existing interprofessional practices and embark on learning how to work with other professionals (Section 2.3.3). A source of collective strength, as seen in this study, is that members with more expertise have the insights and experience to direct their own learning needs, while student and trainee members without experience can look to the experts in the team for structure. Newer members, students, and trainees also deal with the challenge of learning how to be an interprofessional team member within a community of practice (see Section 2.3). Leaders ensure that students and trainees who were learning practical skills experience the connectedness necessary for the transfer of collective knowledge.

For the leaders in the study teams, creating the situation in which to share collective team knowledge among all team members entails creating a culture that engages people in learning, problem-solving, and decision-making. Moreover, the culture of helping to deepen knowledge is based on developing professional awareness of the learning, mentoring, and coaching of each other (see Section 4.4.2). As members engage in learning in practice in which issues around preventing kidney disease progression are
often not clear, they create a no-blame culture in which, by learning together, they develop a common language for the specialized team (Section 4.4.3).

**Activities:** Over time, individual learning and learning among members interacting in collaborating practices took place. Therefore, collective knowledge emerged from the social activities such as collaborating to develop new policies, practices guidelines, or protocols (see Sections 4.4.3; 4.5; and 4.7). Activities that encourage team members to offer professional expert opinions and practical insights openly lead to the creation of collective knowledge (Section 4.3 and 4.4). Collective knowledge encompasses the information pertaining to the care of the patient population the team serves, as well as the team’s daily functions, tasks, processes, and overall operation (see Section 6.2). Within each team’s specific function, several tasks are involved - such as emphasis on patient care, research and education therefore the main tasks of providing quality care are common in both teams. In addition, team members considered experts in their specific health profession complete these tasks as part of a collective. Members interact as expert practitioners on an ongoing basis and deepen their knowledge through engaging in team reflective practices (Section 4.3 and 4.4).

Team reflective conversation practices, as discussed in Section 6.1 and 6.2, are how team members deal with uncertainties, sustain momentum and successfully adapt to unforeseen challenges over time. In a community of practice, building on the concept of team reflective conversation practice, Boud (2006) suggests that members think about learning at work as well as the work itself. He argues for the importance of reflection at work, and advocates moving away from an emphasis on training to an emphasis on
learning how to work as a team, as a collective, in collaboration with others to deepen the
team’s knowledge and expertise.

As seen in this study, learning how to work as a team through communication and
dialogical activities involves experts as practitioners with the teams instead of experts as
consultants with the team (see Section 4.5). This study suggests that leaders can create a
structure that allows experts as practitioners to engage in dialogical conversation with the
rest of the team (see Section 7.1 and 7.2). Because traditional consultants advise on care
through explicit written notes, they often miss the opportunity to engage in team
reflection and learn what is embedded in the team as a community of practice. The
traditional expert consultant is a source of expertise that is external to, but available to,
the team. Questions are asked of the consultant, and he or she answers without knowing
or without taking into account the views of team members. When a consultative style for
making team decisions is adopted, the difference is in the degree of to which team
members are consulted; the leaders are the final decision-makers.

The likely outcome of the experts-as-practitioners approach is that important
things are discussed and chances of misunderstanding are decreased. It is easy to keep
experts-as-practitioners in the loop because, unlike a consultant, they are committed to
the day-to-day activities of the team. As seen in this study, team leaders and members
work together in a community of practice, and as a result, patient needs are the final
decision-making criterion. As outlined Section 4.5 professionals who once saw
themselves as consultants have moved away from this role, and are functioning as team
members in that they interact, reflect, and communicate with other team members.
Hackman (2002) refers to the characteristics of the team as, “the shell of the team... the shaping structure within which (the team) comes to life” (p. 129). The team’s area of specialization dictates the characteristics of its activities and the structures that connect professionals, staff, and patients within and outside the team. Structures and activities are both formal, such as team education rounds, debriefing meetings, and patient care meetings; and informal, such as team huddles, hallway conversations, and cubicle talk, often with triads and dyads of members who are experts in different aspects of care and who have a range of skills and knowledge. Again, there appear to be several interesting overlaps between the properties of these communities of practice, natural interest groups, and my findings with respect to leading team-learning through enabling activities that foster emerging relationships. Within the social construction of a community of practice, emphasis is placed on the structures and activities that emerge as it evolves. Also important are the internal structures and activities, such as determining the right mix of experts or creating the social milieu of the team. Of equal importance is the extent to which the team’s external activities are supportive of teams. Over time, as seen in this study, leaders enabling team learning help to create new knowledge based on the participants in the team developing appropriate team structures and activities.

“Knowledge is dynamic, relational, and based on human action; it depends on the situation and people involved rather than on absolute truths and hard facts” (Von Krogh, Ichijo, & Nonaka 2000, p. 7). Underlying this study’s key findings is that a community of practice enables learning not only through the creation of collective knowledge but also through the ability of its leaders to be self-aware, to understand who they are and to show the confidence to contribute to the team’s development of interprofessional team
learning. Hence, a leader who learns how to use team learning to enable the creation of new, collective knowledge will be able to help create a learning experience for interprofessional students, trainees, team members, and themselves.

8.4 Summary

Situational leadership and situated learning theories help to support an understanding of leading interprofessional team learning in practice. Social interaction of the team leaders is seen as an important aspect of situated learning. Leaders are engaged in practical work with the team as mentors, learners, and clinicians. Leaders in service of the team create learning situations in which team members become involved in a “community of practice”. The team’s social context, culture, and activities involve the members’ willingness to share and the leaders’ enthusiasm for the engagement of all members, students, and trainees. Team members share information based on their experience with each case either informally or formally. Through pooling of information, ongoing team interactions, dialogue, and reflective practice, interprofessional members gain awareness, better understanding, recognition of patterns of similar events, and create new or collective knowledge and team expertise. A team’s reflective practice embodies unique professional knowledge, assessments, recommendations, and the individual behaviours of its members, including the leaders. Eventually, through situated learning and participation in a community of practice, members openly question other team members, question their assumptions and identify possible misconceptions, and advocate for the patient. This process involves not only professional members but also staff, students, trainees, researchers, and volunteers. Leading interprofessional team learning is not only about creating collective knowledge as a community of practice, but also about
learning how to be expert practitioners, to care for patients as health care
interprofessional team members and to prepare students and trainees to be effective
health care professionals while engaging in team learning practices.
Chapter Nine:
Summary, Implications, and Conclusions

9.0 Introduction

The purpose of this final chapter is to summarize my research, to draw conclusions and suggest implications for leading interprofessional team learning. The chapter is divided into two sections. Section 9.1 presents a research summary with key conclusions. Section 9.2, offers a series of implications for leading and developing interprofessional team learning in practice, as well as for future research.

9.1 Research Summary with Key Conclusions

Intending to improve the future of health care in Canada, the First ministers' accord on health care renewal (Romanow, 2003) emphasizes that if health-care providers are expected to work together and share expertise in a team environment, then their education and training should prepare them for this type of working arrangement. I agree with this position, and believe that preparation for this type of team working arrangement can accomplish much more than having individual professionals develop their skill sets in isolation. The intent of this research, therefore, was to explore how leaders function to help support well-established, specialized, interprofessional health care teams and how they work with members in their day-to-day interactions and conversations. Few studies (Bleakley, 2006; Boyatzis, 2007; Brooks, & Moriarty, 2006; Carroll, & Edmondson, 2002) have systematically assessed the effects of leading and team learning in academic health care, where trainee supervision involves team members in practice with interprofessional students, non-professional staff, various professionals, and researchers.
in their day-to-day social interactions. This study attempts to fill this gap. A review of the literature on leadership, interprofessional education, and organizational learning suggests that team learning practice is best understood at the level of the day-to-day conversations and dynamic interactions among team members in context. The four objectives that framed this research were:

1. To examine the relationships, perceptions and experiences of team members identified as leaders of team learning.

2. To explore the value of knowledge gained from day-to-day conversations in shaping the interprofessional team learning agenda.

3. To observe the phenomenon of leading team learning in well-established, outpatient teams within the organizational context of an academic health care institution with students and trainees.

4. To further our understanding of the constructs of interprofessional team learning.

Based on these objectives the study generated the following three key conclusions:

First, my analysis suggests that leading interprofessional team learning parallels specific activities described by Hersey and Blanchard's (1977) theory of Situational Leadership and Lave and Wenger’s (1991) theory of situated learning. This study also supports the idea that the creation of collective team knowledge leads to concrete patient care decisions that are developed and shared within and outside the teams. Current
models of developing individual cognition among life-long learners can be transferred to, or must be adapted for, the interprofessional education context.

This study provided a useful way to broaden our understanding of interprofessional leaders in practice through an understanding of how leaders engage in day-to-day activities in the interprofessional, pre-dialysis, chronic kidney disease and dialysis teams in which they are situated. This study also provided empirical evidence on leaders as clinicians and mentors in service of the team, as opposed to leadership that is based on position and authority. These leaders satisfy their professional practice by caring directly for the patients, by mentoring and teaching, and by role modelling learning. Team learning focuses on leaders and members sharing experiences and reflecting on the meaning of these experiences for the care of each patient. This involves turning implicit knowledge into explicit knowledge through team members’ conversations in the context of the immediate work of the team.

Second, the emphasis on sharing and creating new knowledge parallels the community of practice activities described by Lave (1988) and Wenger & Lave (1998). Communities of practice are best described as groups of people who share a concern, a set of problems, and a passion about a topic. Over time, individuals within the group deepen their knowledge and expertise through their ongoing interactions. There appear to be several interesting overlaps between the properties of natural interest groups and my observations of well-established, specialized, interprofessional health care teams. This thesis provided a rare study on how members in well-established teams are effectively able to learn from and with each other for the purposes of solving team-related problems and improving team-related functions. In addition, the social aspect of working in a team
is about learning how to be a member in relationship to others. This involves being part of a shared vision for caring and practising with other health care professionals, support staff, students, researchers, and patients. I believe the health care teams that I examined can serve as role models for other teams within academic health care organizations.

Third, the study also revealed that, while the way care is delivered is unique to each team, in terms of meeting the needs of the patients in a changing environment, “leadership as a process” has some generic qualities. The differences are based on each team’s priorities for its patients: team A’s goal is to optimize dialysis treatment and quality of care, while team B’s is to prevent further deterioration of the kidneys. However, whatever the focus of caring is, all team leaders, through self-awareness and ability to adapt to a situation, encourage members to engage in team conversations to share information and problem-solve as a community of practice. This finding adds to our understanding of the role of leaders in workplace interprofessional team learning, building on the existing understanding of communities of practice. Although this study uses the concept of the specialized, outpatient team as an entity developing over time with established interprofessional members, I recognize that in reality, members come and go. I nevertheless recommend that in order for team learning to be effective, more than half of the team’s members must be engaged in a strong and on-going commitment to the team. The nature of team learning is influenced by an organization’s strategies, vision, structure, communication practices, and social context. In the background information from the accreditation program, I discovered the concepts underlying the academic health care organization study site. I was initially surprised to discover the learning organization concepts underpinning the workings of the academic health care
organization, because I never thought of a health care institution as a learning organization. This is important to understanding the data that emerged in this study. This current study examined the teams with respect to the concepts of the learning organization, but also confirms that we need new learning theories that look beyond these concepts and take into account the nature of non-formal education, mentoring, coaching, and informal conversations at the team learning level in the dynamic and complex contexts of academic health care environments.

9.2 Implications for Practice

This section presents a number of implications arising from this study. The first section offers implications for leading and developing interprofessional team learning in practice; while the second section goes on to discuss implications for future research in this field.

9.2.1 Leading and Developing Interprofessional Team Learning in Practice

Team learning, as seen in this study, comes from relationships and interactions among individuals. What has been described as team learning throughout this thesis is an interprofessional, interactive form of situated learning. The following implications for leading and developing interprofessional team learning are offered.

First, as seen in this study, team learning embodies the collective praxis of its members mediated by historical, cultural, and social influences. Members engaged in interprofessional team learning bring with them historical professional knowledge or skills in an area of practice. Within the culture of an academic health care organization,
interprofessional team learning allows members to engage in conversations that deepen learning about each other and create collective knowledge for enhancing awareness, development and learning in practice. The social context of an interprofessional learning team drives the transformation of health care practices by focusing first, on the collective praxis of its members, second, on leadership as a process, and third, on improving the quality of patient care. Therefore, to support *interprofessional team learning*, a team leader needs to:

1. Develop collective knowledge and expertise from the complementary specialized knowledge and skills of each member.

2. Help members, patients, students, and trainees learn how to use the team’s expertise and collective knowledge to solve problems, answer questions, resolve issues, etc.

Similarly, team members need to:

1. Share information based on their experience with each case, informally or formally.

2. Continuously build on knowledge gained from others through ongoing team interactions, dialogue, and reflective practice.

3. Recognize a larger pattern of events, and create a better solution than before, which leads to the creation of new knowledge and collective team learning of new protocols for care.
4. Become open to each other’s unique professional experiences, knowledge, assessments, recommendations, behaviours, and values.

5. Develop the team as a safe place in order to encourage other members to openly participate in learning, and to support the student and trainee members in the application of new and collective knowledge in practice.

6. Support others in dealing with the challenges of creating a place to share ongoing connections and relationships and build on each other’s contributions.

7. See all team members, whether professional staff or non-traditional staff, such as students, trainees, researchers and volunteers, as important to the team.

This study provides ideas for developing interprofessional team learning in practice to help strengthen the collaborative patient-centered care approach. Many organizations, including the one in this study, are engaged in incorporating the concepts of interprofessional education and collaboration into practice. These organizations are narrowing the gap between interprofessional education and practice among interprofessional education researchers, policy-makers, and health practitioners. This study suggests a way of bridging the gap that has received less attention to date: focusing on leading team learning through day-to-day interactions and conversations about caring.

9.2.2 Limitations of the Study and Future Research

The following implications for future research into leading and developing interprofessional team learning are offered. Despite the emerging new concepts, there were limitations to this study, as discussed in Chapter Three. Using the context of well-
established, specialized interprofessional teams to explore team learning, I did see minimal issues of power and hierarchy, as (3.5.5.2 Section on Strengths and Limitations), and discussed in Chapter 5, in the section “Identifying sources of power and control in the team”. Therefore, these teams may not be representative of typical health care teams dealing with typical team practice challenges. Many groups within the academic health care organization describe themselves as a team. For example, the operating room team, where the surgeon, as a single professional, is in charge, is not a team like the ones in the study. It is both hierarchical and not well-established. Other health care teams are loose connections of professionals and staff that come together based on various factors. Since health care teams are not always stable, further research into the communication among the members of these loosely or temporarily connected groups of professionals and staff will help elucidate team learning in other areas of an academic health care organization.

At the team level, I did not explore individual members’ social construction of team learning in depth. Since the focus of this research was on the leaders, I did not interview other members about their perspectives on team learning. The focus of this work is leaders’ experiences and perceptions. Therefore, it would be beneficial to examine and seek all team members’ perspectives on team learning, as research into non-leader members’ perceptions of team learning would increase our understanding.

This study also did not consider the social and political implications of the race, class, or gender of team members, as it focused on understanding team learning among a diverse group of team members from various professional backgrounds, as the key area of difference. Exploring the influences of race, class, and gender might lead to a fuller understanding of the socio-cultural aspects of interprofessional team learning.
At the organizational level, there are resources available in the form of patient satisfaction and staff satisfaction surveys, along with other reports that were not included in this study. Additional research attention on the social aspects of the linguistic and cultural diversity of professional teams may also facilitate the development and refinement of an understanding of team learning and interprofessional education and practice. Further research to specifically address the relationship between leadership behaviour and organizational performance may also be beneficial.

Placing students and trainees in real interprofessional teams for workplace learning experiences helps prepare them for interprofessional practice. As the student or trainee moves into the situated learning of “communities of practice”, they become more active and engaged in the culture, and hence move from the role of novice to that of expert. The expected outcome of many interprofessional education initiatives are students and trainees equipped for situated learning experiences; however, there are few assessment tools to determine if this learning is preparing them for interprofessional practice. This study is the first step in providing ideas for developing interprofessional team learning in outpatient teams. Further research is needed to determine team learning outcomes for the students and trainees. Research should focus on the development of interprofessional team learning assessment tools for use by placement supervisors and educators. In addition, students and trainees may perceive their responsibility in some teams to be to learn and not to share, particularly in engagement with more experienced members in their professions. Students may fear being evaluated by team members or may lack confidence in their own knowledge and skills. Therefore, extending this research to explore the students’ perspective on team learning might be beneficial.
Another question that merits exploration is: What does team learning look like on the wards in in-patient teams in which students and trainees are placed? The differences between different health care providers and different specialities and professions create barriers to collaborative practice (Romanow, 2003), especially in typical in-patient teams. This study focused on well-established, specialized, interprofessional, outpatient teams. In order to extend team learning concepts, it is important to examine specialized, interprofessional in-patient ward teams where the tensions of team hierarchy are prevalent.

The composition of a team is determined by corporate and financial decisions. How team leaders experience dealing with corporate leaders on matters concerning financial support and budgetary constraints remains unclear. Research focusing on leaders’ interactions with the corporate organization and policy-makers would enlarge our understanding of the context of team learning and of interprofessional education and practice, to help complete the picture which this study has begun to paint.
References


Cutcliffe, J., & McKenna, H. (2002). When do we know that we know?: Considering the truth of research findings and the craft of qualitative research. *International Journal of Nursing Studies, 39*(6), 611-618.


Interprofessional Education: A RANDOMIZED CONTROLLED TRIAL. *Journal of Interprofessional Care*, 20 (3), 314-316.


Rice, K., Zwarenstein, M., Gotlib Conn, L., Kenaschuk, C., Russell, A., & Reeves, R. (2010), An intervention to improve interprofessional collaboration and


Appendix A:
Proposed Interview Questions

Interview questions to guide conversations with team leaders

1. Tell me about the purpose of your work? What are you doing? Why are you doing it?
2. What is your experience with interprofessional practice?
3. What is the general purpose of the team’s work?
4. What is (if any) the leadership approach used within an academic health care organization?
5. What are the strengths of this approach? And, what counts as “good” team leaders within the context of interprofessional team practice?
6. And, further, what are the potential pitfalls for new team leaders using this approach?
7. Please describe your perspective for influencing the creation of an interprofessional team learning practice.
8. Please describe the factors that influence your decisions about how much leadership to provide to team members.
9. What type of leadership needed to enable interprofessional practice?
10. What is the typical relationship between the team leader and the followers?
Appendix B:
Ethics Approval

*Revised Notification of REB Initial Approval

Date: October 25, 2007 *Revised November 6, 2007

To: Ms. Carole Chatalasigh
1ES-565, TGH

Re: 07-0461-AE
Understanding the Nature of *Interprofessional Team Learning Leadership Within an Academic Healthcare Organization

REB Review Type: Expedited
REB Initial Approval Date: October 17, 2007
REB Expiry Date: October 17, 2008

Documents Approved:
Dear Colleague Letter (received October 9, 2007)
Advisement/Information Sheet (dated October 10, 2007)

The above named study has been reviewed and approved by the University Health Network Research Ethics Board. If, during the course of the research, there are any serious adverse events, any confidentiality concerns, changes in the approved protocol or consent form, or any new information that must be considered with respect to the project, these should be brought to the immediate attention of the REB. In the event of a privacy breach, you are responsible for reporting the breach to the UHN REB and the UHN Corporate Privacy Office (in accordance with Ontario Health Privacy Legislation — Personal Health Information Protection Act, 2004). Additionally, the UHN REB requires reports of inappropriate/unauthorised use of the information.

If the study is expected to continue beyond the expiry date, you are responsible for ensuring the study receives re-approval. The REB must be notified of the completion or termination of this study and a final report provided. As the Principal Investigator, you are responsible for the ethical conduct of this study.


Sincerely,

Ronald Hestesegue, Ph.D.
Chair, University Health Network Research Ethics Board

RH/hec
UNIVERSITY OF TORONTO
Office of the Vice-President, Research
Office of Research Ethics

PROTOCOL REFERENCE #20793

September 21, 2007

Prof. Marilyn Laiken
Dept. of Adult Education
and Counselling Psychology
Ontario Institute for Studies in Education
of the University of Toronto
252 Bloor Street West
Toronto, ON M5S 1V6

Ms. Carole Chatalalsingh
Dept. of Adult Education
and Counselling Psychology
Ontario Institute for Studies in Education
of the University of Toronto
252 Bloor Street West
Toronto, ON M5S 1V6

Dear Prof. Laiken and Ms. Chatalalsingh:

Re: Your research protocol entitled, "Understanding the nature of interprofessional team learning leadership within an academic healthcare organization"

ETHICS APPROVAL
Original Approval Date: September 21, 2007
Expiry Date: September 20, 2008

We are writing to advise you that a member of the Education Research Ethics Board has granted approval to the above-named research study, for a period of one year, under the RCB's expected review process. Ongoing projects must be reviewed prior to the expiry date.

This approval has been issued with the understanding that all other appropriate approvals (where applicable) have been sought. Copies of valid approval letters from other relevant institutions should be submitted as soon as possible.

The following consent documents (received September 4, 2007) have been approved for use in this study: Informed Consent Letter and Research Information Sheet. Participants should receive a copy of their consent form.

Any changes to the approved protocol or consent materials must be reviewed and approved through the amendment process prior to implementation. Any adverse or unanticipated events should be reported to the Office of Research Ethics as soon as possible.

Best wishes for the successful completion of your project.

Yours sincerely,

[Signature]
Bridgette Murphy
Research Ethics Coordinator

Street Hall, 27 King's College Circle, Room 101A, Toronto, ON M5S 1A1
TEL: 416-946-3223 FAX: 416-946-5703 EMAIL: ethics.review@utoronto.ca
Notification of REB Amendment Approval

To: Ms. Carole Chatalalsingh
ES 1-565, TGH

Re: 07-0461-AC
Understanding the Nature of Interprofessional Team Learning Leadership Within an Academic Healthcare Organization

REB Review Type: Expedited
REB Initial Approval Date: October 17th, 2007
Revised Protocol
Version date: 2008-02-19

The UHN Research Ethics Board operates in compliance with the Tri-Council Policy Statement, ICH/GCP Guidelines, the Ontario Personal Health Information Protection Act (2004), and Part C, Division 5 of the Food and Drug Regulations of Health Canada.

Best wishes for the successful completion of your project.

Sincerely,

Alex Kerr
Research Ethics Coordinator

For: Ronald Ileslegreave, Ph.D.
Chair, University Health Network Research Ethics Board
University of Toronto  
Office of the Vice-President, Research  
Office of Research Ethics

PROTOCOL REFERENCE #20783  
October 3, 2008

Prof. Marilyn Laiken  
Dept. of Adult Education  
and Counselling Psychology  
Ontario Institute for Studies in Education  
of the University of Toronto  
252 Bloor Street West  
Toronto, ON M5S 1V6

Ms. Cande Chatelaisingh  
Dept. of Adult Education  
and Counselling Psychology  
Ontario Institute for Studies in Education  
of the University of Toronto  
252 Bloor Street West  
Toronto, ON M5S 1V6

Dear Prof. Laiken and Ms. Chatelaisingh:

Re:  
Administrative Approval of your research protocol entitled, "Understanding the nature of interprofessional team learning leadership within an academic healthcare organization"  
by Prof. M. Laiken (supervisor), Ms. C. Chatelaisingh (PhD candidate)

We are writing to advise you that the Office of Research Ethics has granted administrative approval to the above-named research study. The level of approval is based on the following role(s) of the University, as you have identified with your submission:

* Graduate Student research – hospital-based only

This approval does not substitute for ethics approval, which has been obtained from your hospital Research Ethics Board. Should the status (i.e. University involvement) of the project change, please contact the Office of Research Ethics to determine whether a new review (administrative or ethics) may be required.

Best wishes for the successful completion of your project.

Yours sincerely,

[Signature]

Marienna Richardson  
Research Ethics Coordinator
Notification of REB Continued Approval

Date: November 4th, 2009
To: Ms. Carole Chfilatalsingh
Rm 1ESS65, 1st Floor, South Wing, Fatm, Toronto General Hospital, 200 Elizabeth St., Toronto,
Ontario, Canada, M5G 2C4

Re: 07-0401-AE
Understanding the Nature of Interprofessional Team Learning Leadership Within an Academic
Healthcare Organization

REB Review Type: Expedited
REB Initial Approval Date: October 17th, 2007
REB Annual Approval Date: November 4th, 2009
REB Expiry Date: October 17th, 2010
Lapse in REB Approval: October 17th, 2008 to November 4th, 2009

Consent Form(s) Currently Approved for Use:

Consent Form for Interview Participation

Version date: October 10th, 2007

The above-named study has received continued approval from the University Health Network Research Ethics Board until the expiry date noted above. If the study is expected to continue beyond the expiry date, you are responsible for ensuring the study receives re-approval. The REB must also be notified of the completion or termination of this study and a final report provided. In the future please submit the annual renewal form before the REB expiry date to avoid a lapse in REB approval.

If, during the course of the research, there are any serious adverse events, confidentiality concerns, changes in the approved project, or any new information that must be considered with respect to the project, these should be brought to the immediate attention of the REB. In the event of a privacy breach, you are responsible for reporting the breach to the UHN REB and the UHN Corporate Privacy Office (in accordance with Ontario health privacy legislation, Personal Health Information Protection Act, 2004). Additionally, the UHN REB requires reports of inappropriate/unauthorized use of the information. As the Principal Investigator, you are responsible for the ethical conduct of this study.

The UHN Research Ethics Board operates in compliance with the Tri-Council Policy Statement, ICH/GCP Guidelines, the Ontario Personal Health Information Protection Act (2004), and Part C, Division 5 of the Food and Drug Regulations of Health Canada.

Sincerely,

Molissa Silhu, B.Sc., CCRP
Research Ethics Coordinator
Appendix C:

Recruitment Letter and Information Sheets

OISE University of Toronto

Dear Colleague,

Thank you for taking the time to review the information below. This study is entitled: Understanding the nature of interprofessional team learning leadership within an academic healthcare organization. It has received Research Ethics Approval by the University Health Network and the University of Toronto. The principal investigator is Carole Chatalalsingh, Wilson Centre Fellow at the University Health Network. The goal of the project is to explore the nature of interprofessional team learning leadership as a form of everyday work within an academic health care organization, focussing on experience, descriptions, approaches and systems for leading interprofessional health care team learning and practice. If you are a clinical team leader within your unit and involved in activities such as creating the structures for learning (e.g. multiprofessional rounds), open and willing to teach and mentor others, engaged in the day to day learning with the team and integrated into the activities of the team as a practitioner, I invite you to contribute your experiences and views of enabling interprofessional team learning activities within the context of an academic health sciences centre. I intend that the study would not only provide explicit opportunities for enhancing clinical team leadership in this context, but also elaborate and extend leadership theory both to the health professions’ interprofessional education environment1 and add to the organization leadership literature.

I will utilize in-depth interviews and qualitative research methods in this project. The interviews will be facilitated by myself. The verbal comments made by the interview participants will be transcribed from audiotapes and coded to ascertain themes, which will be analyzed using qualitative research methods. I will be taking notes regarding non-verbal communication. All audiotapes and other materials will be destroyed at the conclusion of this study. Your total time commitment will be approximately 1.5 hours, one hour for the interview and 30 minutes for you to discuss interview notes. All participant information shared during the session will be kept confidential.

The location for the interviews will be at your convenience at the University Health Network. If you are interested in participating, please contact me to arrange a date and time that might be suitable for you. My current proposed dates for the interviews are between November 2007 and October 2008. If you would like to participate, please do not hesitate to contact me.

Sincerely,

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1 Notes: multi -speciality team of providers for delivering care in their specific speciality
Understanding Team Learning

Research Information Sheet for Dialysis Patients

Effective work and team learning is an important part of providing high-quality care in all areas of the hospital, including the transplant unit. A research study is currently underway at University Health Network to understand how health care team leaders enable team learning to provide interprofessional patient care. For this research, one researcher will be present in the unit between November 2007 - March 2008. Leader members will be observed in different areas of the unit including during your visit. The one researcher will be watching and taking notes about team leaders’ activities. No information about patients or patient care will be taken.

Questions

As a dialysis patient, you are welcome to ask questions about this research, or to say that you don’t want the study to take place during your visit. If you have any questions, please contact the study coordinator:

Carole Chatalalsingh, tel: 416-340-4800 ext 5086, carole.Chatalalsingh@uhn.on.ca

You may also contact Dr. R. Heslegrave, Chair of the University Health Network Research Ethics Board at (416) 340-4557.
Understanding Team Learning

Research Information Sheet for Pre-dialysis Patients

Effective work and team learning is an important part of providing high-quality care in all areas of the hospital, including the peritoneal dialysis unit. A research study is currently underway at University Health Network to understand how health care team leaders enable team learning to provide quality patient care. For this research, one researcher will be present in the unit between [April - September, 2008]. Pre-dialysis team leaders will be observed in different areas of the unit including during your clinic visits. The one researcher will be watching and taking notes about team leaders’ activities. No information about patients or patient care will be taken.

Questions

As a pre-dialysis patient, you are welcome to ask questions about this research, or to say that you don’t want the study to take place during your visit. If you have any questions, please contact the study coordinator:

Carole Chatalalsingh, tel: 416-340-4800 ext 5086, carole.Chatalalsingh@uhn.on.ca
You may also contact Dr. R. Heslegrave, Chair of the University Health Network Research Ethics Board at (416) 340-4557.

Understanding Team Learning

Toronto General Hospital
University Health Network
Research Information Sheet for Dialysis Unit

Working in the Peritoneal Dialysis Unit for the past several years, I have noticed a trend amongst leaders to enable team members and practitioners to learn and excel in a multi professional context of providing care to patients. I am interested in discovering how clinical leadership activities are manifested and how this might be seen as a priority in team learning for providing interprofessional patient care. It is my belief that the best way to gain insights into this area of inquiry is to do a close study of the leaders in this unit, as in certain respects it may be an exceptional unit to develop a model of interprofessional team learning leadership. Observations will begin in the Peritoneal Dialysis Unit on [November 1, 2007] and will last for approximately 6 months. During that time, I will be observing team leaders’ activities and interactions during clinic periods, team meetings and in the nursing station/ward office. I would like to inform the unit that no information or specific names regarding team members, students or patients will be collected, and the observations will not interfere with student placements or patient care. There is no compensation for associating with this study. I have received approval from management of the unit to conduct this study, and will be asking for team leaders’ permission to be observed, as they are a particular focus of this research. If you do not wish to be associated with this observation, please contact me. No data pertaining to any team member who should indicate disassociation will be recorded. I thank you in advance for your support. A summary of the findings of the research will be sent to the unit, and if you wish, you may access it upon request.
Understanding Team Learning

Research Information Sheet for Pre Dialysis Unit

Working in the Nephrology Unit of the UHN for the past several years, I have noticed a trend amongst leaders to enable team members and practitioners to learn and excel in a multi professional context of providing care to patients. I am interested in discovering how clinical leadership activities are manifested and how this might be seen as a priority in team learning for providing interprofessional patient care. It is my belief that the best way to gain insights into this area of inquiry is to do a close study of the leaders in this unit, as in certain respects it may be an exceptional unit to develop a model of interprofessional team learning leadership. Observations will begin in the Pre Dialysis Unit on [April 3rd, 2008] and will last for approximately 6 months. During that time, I will be observing team leaders’ activities and interactions during clinic periods, team meetings and in the nursing station/ward office. I would like to inform the unit that no information or specific names regarding team members, students or patients will be collected, and the observations will not interfere with student placements or patient care. There is no compensation for associating with this study. I have received approval from management of the unit to conduct this study, and will be asking for team leaders’ permission to be observed, as they are a particular focus of this research. If you do not wish to be associated with this observation, please contact me. No data pertaining to any team member who should indicate disassociation will be recorded. I thank you in advance for your support. A summary of the findings of the research will be sent to the unit, and if you wish, you may access it upon request.

Questions

If you have any questions, please contact one of the study investigators:
Carole Chatalalsingh, tel: 416-340-4800 ext 5086, carole.Chatalalsingh@uhn.on.ca

You may also contact Dr. R. Heslegrave, Chair of the University Health Network Research Ethics Board at (416) 340-4557.
Appendix D:

Consent Letters

Administrative Consent to Participate in a Research Study:
Peritoneal Dialysis

Understanding the nature of interprofessional team learning leadership within an academic healthcare organization

Investigator: Carole Chatalalsingh 416-340-5086

Purpose of the research

1. To understand how health practitioners experience team leadership within clinical teams that focus on interprofessional practice.
2. To explicate the health professional’s description of leadership within the structural and organizational processes of an academic health care environment.
3. To develop a model of interprofessional team learning leadership within that environment
Background and significance

While there are a number of studies demonstrating the value of team leadership, there is a relatively limited understanding of the impact of clinical interprofessional leadership for enabling team learning activities of clinical multiprofessional staff, and on the resulting collaboration of clinical care teams in the provision of care within an academic healthcare organization. Understanding how leaders impact team learning activities in the workplace is an important link in the enhancement of the academic health care centre’s performance.

The proposed phase 3 of this research will involve an observational study toward the larger goal of the nature of interprofessional team learning leaders’ activities in the pre dialysis unit, focusing on how leaders impact workplace learning activities and team collaboration.

This research program seeks, ultimately, to increase awareness of how collective workplace-learning activities are manifested in an academic health care organization and to understand how multiprofessional team learning activities are incorporated into these activities as a functioning practice team.

What will participation involve?
You are being asked to grant permission for us to conduct this study in the peritoneal dialysis Unit. The specific activities that would be included in this research are described below.

Observations

The primary investigator would observe your team leader’s regular work in the transplant unit. These observations will be used to understand how team learning leadership activities enable workplace learning activities and team collaboration.

On observation days, the primary investigator will be present in the transplant unit, and focused on team leaders’ activities in various areas of the unit for e.g. clinics, team meetings and the nursing station. The observer will take notes about how team leaders exchange information and activities related to the workplace learning. No information about individual team members, students or patients will be recorded. Team members will identified as a team member and by their role on the team only, if known (e.g., “nurse”, “nephrologists”, “social worker”, “dietitian” “student”, “intern”, “clinical fellow”). The observational data will be analyzed and may be reported in publications related to this study.

These observations will take place for approximately 4 months over the course of the study (2007-2008). The observations are expected to start, to coincide with phase two interprofessional team learning leadership interviews, beginning [approximately November 2007].

Consent

I require your approval in order to conduct this study in the Transplant Unit. In addition, I will be seeking consent from interprofessional team leaders who volunteer to be observed. I will also be distributing information about the study to team members by posting information sheets at the nursing station before observations begin. Information about the study to patients will also be posted in the patient care areas of the ward before observations begin. Information sheets will include the investigator’s contact information, should clarification about the research be needed.

Potential risks, harms, injuries, discomforts or inconvenience
There are no known harms associated with participating in this study. Some team members may feel uncomfortable having an observer in the unit. In my experience from previous studies, people get used to
the observer within the first few observation sessions, especially if the observer is already a member of the team.

**Potential benefits**
Team leaders will not likely benefit directly from the data collection for this study. The results of this research may improve our understanding of how teams collaborate related to workplace learning. The investigator will use the information to identify potentially illuminating knowledge about the concepts of interprofessional team learning leadership within your team and the hospital in which you work. In the future, this knowledge could be used to benefit health care teams and patients.

**Confidentiality**
All information obtained during the study will be held in strict confidence. No names or identifying information will be used in any publication or presentations. The information will not be available to the organization’s administration or other departmental heads and will not be used to evaluate performance as part of any system evaluation.

**Participation**
Participation in research is voluntary. No data pertaining to anyone who should decline to participate will be recorded. No specific data regarding participants’ involvement with patients will be collected, and the observations will not interfere with duties and functioning in this unit and at University Health Network. All volunteers who commit to this study can withdraw from the study at any time.

**Compensation**
There are no risks involved; therefore it is not expected that you become ill or are physically injured as a result of participation in this study. In no way does signing this consent form waive your legal rights nor does it relieve the investigator, or involved institutions from their legal and professional responsibilities. There is no compensation for this study.

**Questions**
If you have any questions about the study, please contact the investigators:

**Principal Investigator**
Name: Carole Chatalalsingh
Eaton south 1-565, Wilson Centre for Research in Education, University Health Network, Toronto General Hospital, 200 Elizabeth Street, Toronto, ON, M5G 2C4
Phone Number: (416) 340-5086
Email: carole.chatalalsingh@uhn.on.ca

**Project Supervisor**
Name: Dr. Marilyn Laiken, Professor, Ph.D. (Toronto)
Chair, Department of Adult Education and Counselling Psychology , OISE/UT
Mailing Address: AECP OISE/UT, 252 Bloor Street West, Toronto, Ontario, M5S 1V6
Phone: (416) 923-6641 ext. 2349 Fax: (416) 926-4749
E-mail: mlaiken@oise.utoronto.ca

If you have any questions about research rights, please call Dr. R. Heslegrave, Chair of the University Health Network Research Ethics Board at (416) 340-4557. This person is not involved with the research project in any way and calling him will not affect your participation in the study.

**Consent**
I have had the opportunity to discuss this study and my questions have been answered to my satisfaction. I/we agree to grant permission for this study to take place in the Peritoneal Dialysis Unit.
Name of participant (please print)  Signature  Date

I confirm that I have explained the nature of the study to the participant. I have answered all questions.

Name of person who obtained consent  Title of person who obtained consent

Signature  Date

OISE
University of Toronto

Administrative Consent to Participate in a Research Study:
Pre- Dialysis Unit

Understanding the nature of interprofessional team learning leadership within an academic healthcare organization

Investigator: Carole Chatalalsingh 416-340-5086

Purpose of the research

1. To understand how health practitioners experience team leadership within clinical teams that focus on interprofessional practice.
2. To explicate the health professional’s description of leadership within the structural and organizational processes of an academic health care environment.

3. To develop a model of interprofessional team learning leadership within that environment

**Background and significance**

While there are a number of studies demonstrating the value of team leadership, there is a relatively limited understanding of the impact of clinical interprofessional leadership for enabling team learning activities of clinical multiprofessional staff, and on the resulting collaboration of clinical care teams in the provision of care within an academic healthcare organization. Understanding how leaders impact team learning activities in the workplace is an important link in the enhancement of the academic health care centre’s performance.

The proposed phase 3 of this research will involve an observational study toward the larger goal of the nature of interprofessional team learning leaders’ activities in the pre dialysis unit, focusing on how leaders impact workplace learning activities and team collaboration.

This research program seeks, ultimately, to increase awareness of how collective workplace-learning activities are manifested in an academic health care organization and to understand how multiprofessional team learning activities are incorporated into these activities as a functioning practice team.

**What will participation involve?**

You are being asked to grant permission for us to conduct this study in the Pre Dialysis Unit. The specific activities that would be included in this research are described below.

**Observations**

The primary investigator would observe your team leader’s regular work in the pre dialysis unit. These observations will be used to understand how team learning leadership activities enable workplace learning activities and team collaboration.

On observation days, the primary investigator will be present in the pre dialysis unit, and focused on team leaders’ activities in various areas of the unit for e.g. clinics, team meetings and the nursing station. The observer will take notes about how team leaders exchange information and activities related to the workplace learning. No information about individual team members, students or patients will be recorded. Team members will identified as a team member and by their role on the team only, if known (e.g., “nurse”, “nephrologists”, “social worker”, “dietitian” “student”, “intern”, “clinical fellow”). The observational data will be analyzed and may be reported in publications related to this study.

These observations will take place for approximately 6 months over the course of the study (2008). The observations are expected to start, to coincide with phase two interprofessional team learning leadership interviews, beginning [approximately April 2008].

**Consent**

I require your approval in order to conduct this study in the Pre Dialysis Unit. In addition, I will be seeking consent from interprofessional team leaders who volunteer to be observed. I will also be distributing information about the study to team members by posting information sheets at the nursing station before observations begin. Information about the study to patients will be posted in the clinic areas before observations begin. Information sheets will include the investigator’s contact information, should clarification about the research be needed.
Potential risks, harms, injuries, discomforts or inconvenience
There are no known harms associated with participating in this study. Some team members may feel uncomfortable having an observer in the unit. In my experience from previous studies, people get used to the observer within the first few observation sessions, especially if the observer is already a member of the team.

Potential benefits
Team leaders will not likely benefit directly from the data collection for this study. The results of this research may improve our understanding of how teams collaborate related to workplace learning. The investigator will use the information to identify potentially illuminating knowledge about the concepts of interprofessional team learning leadership within your team and the hospital in which you work. In the future, this knowledge could be used to benefit health care teams and patients.

Confidentiality
All information obtained during the study will be held in strict confidence. No names or identifying information will be used in any publication or presentations. The information will not be available to the organization’s administration or other departmental heads and will not be used to evaluate performance as part of any system evaluation.

Participation
Participation in research is voluntary. No data pertaining to anyone who should decline to participate will be recorded. No specific data regarding participants’ involvement with patients will be collected, and the observations will not interfere with duties and functioning in this unit and at University Health Network. All volunteers who commit to this study can withdraw from the study at any time.

Compensation
There are no risks involved; therefore, it is not expected that you become ill or are physically injured as a result of participation in this study. In no way does signing this consent form waive your legal rights nor does it relieve the investigator, or involved institutions from their legal and professional responsibilities. There is no compensation for this study.

Questions
If you have any questions about the study, please contact the investigators:

Principal Investigator
Name: Carole Chatalalsingh
Eaton south 1-565, Wilson Centre for Research in Education, University Health Network, Toronto General Hospital, 200 Elizabeth Street, Toronto, ON, M5G 2C4
Phone Number: (416) 340-5086
Email: carole.chatalalsingh@uhn.on.ca

Project Supervisor
Name: Dr. Marilyn Laiken, Professor, Ph.D. (Toronto)
Chair, Department of Adult Education and Counselling Psychology, OISE/UT
Mailing Address: AECP OISE/UT, 252 Bloor Street West, Toronto, Ontario, M5S 1V6
Phone: (416) 923-6641 ext. 2349 Fax: (416) 926-4749
Email: mlaiken@oise.utoronto.ca

If you have any questions about research rights, please call Dr. R. Heslegrave, Chair of the University Health Network Research Ethics Board at (416) 340-4557. This person is not involved with the research project in any way and calling him will not affect your participation in the study.
Consent
I have had the opportunity to discuss this study and my questions have been answered to my satisfaction. I/we agree to grant permission for this study to take place in the Peritoneal Dialysis Unit.

________________________________________  _______________________________  __________
Name of participant (please print)            Signature                          Date

I confirm that I have explained the nature of the study to the participant. I have answered all questions.

________________________________________  _______________________________
Name of person who obtained consent            Title of person who obtained consent

________________________________________  _______________________________
Signature                                      Date

Letters of Consent: Interview

OISE
University of Toronto

Toronto General Hospital
University Health Network
Title of research project
Understanding the nature of interprofessional team learning leadership within an academic healthcare organization

Investigator: Carole Chatalalsingh 416-340-5086

Purpose of the research

1. To understand how health practitioners experience team leadership within clinical teams that focus on interprofessional practice.
2. To explicate the health professional’s description of leadership within the structural and organizational processes of an academic health care environment.
3. To develop a model of interprofessional team learning leadership within that environment.

Background and significance

What will participation involve?
You are being invited to take part in an individual interview as part of the study described above. The investigator is interested in asking for your input because you were part of an interprofessional team at a large academic healthcare organization. You will be asked to reflect and give insights on previous team experiences and perceptions to help the investigator interpret interprofessional team learning activities. You will also be asked to clarify work/professional history, specific details of your job duties, your feelings and/or attitudes towards your work as a clinical team leader and involving activities such as creating the structures for learning (e.g. multiprofessional rounds). In addition, reflecting on your openness and willingness to teach and mentor others, engaging in the day to day learning with the team, integrating into the activities of the team as a practitioner etc.

This interview will take approximately 60 minutes to complete and will be conducted by the primary investigator at your convenience. The interview will be audio recorded and then transcribed. The transcription will not include your name or any details that might identify you. The investigator will work with anonymous transcript only. The audio recording will be kept in a secure file for five years and then destroyed. Within one month of the interview, you may be contacted either by phone or in person to discuss the interpretation of your interview; this should take approximately 30 minutes.

The data from the interview will be used to guide the development of a model of interprofessional team learning leadership at your hospital. It may also be analyzed and reported in publications related to this study.

Potential harms, injuries, discomforts or inconvenience
There are no known harms associated with participating in this study. It may be inconvenient to find time in your schedule for this interview. There are no risks involved; therefore it is not
expected that you become ill or are physically injured as a result of participation in this study. In no way does signing this consent form waive your legal rights nor does it relieve the investigator, or involved institutions from their legal responsibilities.

**Potential benefits**
You will not likely benefit directly from participating in this interview. The investigator will use the information from the interview to identify potentially illuminating knowledge about the concepts of interprofessional team learning leadership within your team and the hospital in which you work.

The results of this research may improve our understanding of how interprofessional team learning leaders enable team learning activities and how clinical team leaders are incorporated into workplace learning activities and team collaboration. In the future, this knowledge could be used to benefit health care teams and patients.

**Confidentiality**
All information obtained during the study will be held in strict confidence. The data will not be available to the administration of your department and will not be used to evaluate your performance as part of any system evaluation. You will have access to all raw data collected about you. All the raw data collected during the study will be secured in a locked file and after five years will be shredded. No names or identifying information will be used in any publication or presentations.

**Participation**
Participation in research is voluntary. If you choose not to participate, it will not affect your employment experience at University Health Network. If you choose to participate in this study, you can withdraw from the study at any time. No evaluative judgment will be made about you if you choose to withdrawal from the study.

**Compensation**
There is no compensation for participating in this study.

**Questions**
If you have any questions about the study, please contact the investigator:

**Principal Investigator**  
Name: Carole Chatalalsingh  
Mailing Address: Eaton south 1-565, Wilson Centre for Research in Education, University Health Network, Toronto General Hospital, 200 Elizabeth Street, Toronto, ON, M5G 2C4  
Phone Number: (416) 340-5086  
Email: carole.chatalalsingh@uhn.on.ca

**Project Supervisor**  
Name: Dr. Marilyn Laiken, Professor, Ph.D. (Toronto)  
Chair, Department of Adult Education and Counselling Psychology, OISE/UT  
Mailing Address: AECP OISE/UT, 252 Bloor Street West, Toronto, Ontario, M5S 1V6  
Phone: (416) 923-6641 ext. 2349 Fax: (416) 926-4749  
E-mail: mlaiken@oise.utoronto.ca

If you have any questions about your rights as a research participant, please call Dr. R. Heslegrave, Chair of the University Health Network Research Ethics Board at (416) 340-4557. This person is not involved with the research project in any way and calling him will not affect your participation in the study.

**Consent**
I have had the opportunity to discuss this study and my questions have been answered to my satisfaction. I consent to take part in the study with the understanding that I may withdraw at any time without affecting my employment experience at University Health Network.

_________________________  ______________________  ______________
Name of participant (please print)   Signature   Date

I confirm that I have explained the nature of the study to the participant. I have answered all questions.

_________________________  ______________________
Name of person who obtained consent   Title of person who obtained consent

_________________________  ______________________
Signature   Date
Appendix E:

Categories from first stage analysis

Below is an extract from the first stage of the data analysis that provides an indication of how data were initially categorized.

A. Who is leading team learning?
   - Leaders understanding themselves
   - Leaders understanding others in the team
   - Learning from the team diversity

B. Confidence based on Professional Knowledge
   - Leading or following
   - Supporting autonomy in team care
   - Being sensitive and respectful to others
   - Recognizing each other in good and bad times
   - Trusting
   - Creating a caring culture

C. Clinical team leader seen as a team member
   - Also aware of self and others
   - Respect for the leader as team member
   - Learning from the past to create the future
   - Learning from the present to create the future

D. Facilitating team learning
   - Unsolicited and spontaneous ideas
   - Express concern over a problem
   - Excitement for sharing
   - Attention, heads –up, cautions
   - To ask questions even if we are seen as smart
   - To remind a team member
   - To share clinical practice opinions
   - Teaching event
   - Experience based on coordinate care
   - Solicit information- response to question
   - Give recognition at the team level
   - Tacit uptake
   - Beard (attention-diverting person) for team learning
   - Incidental

E. Managing tensions among organizational structures
   - Team members with various reporting structures outside the team
   - Team members with multiple workload distributions and work schedules
   - Team members with legal responsibility while engaging interprofessional care
   - Dealing with tensions of hierarchical empowerment
   - Sharing the lead in dealing with tensions in the team
   - Perspectives on conflict in team learning
Organizational strategies did not always address the team as an entity
Creating the structures and resources for learning
Engaging and connecting others to the team’s vision
Creating a safe environment for the team in a challenging environment

F. Creating informal reflective process as part of everyday practice
   During practice planned team debrief
   Discussing the undiscussables and indulging the appetite in food delights.
   Supporting evolving spontaneous learning events
   During practice spontaneous huddles- dyads and triads
   Peer to peer huddle
   Mentor to student
   Student to peer
   Researcher to peer
   Researcher to researcher

G. Developing formal learning processes
   Patient care rounds- dealing with hierarchy
   Morning report
   Education rounds
   Central Bulletin board
   Use of technology as formal learning process
   CQI meetings

H. Leaders deepening collective team specialty knowledge
   Content of knowledge
   Direct Patient care
   Work related information (Knowledge of contracts e.g. union and non-union)
   Personal information
   Non-work related gossip
   Professional/discipline specific knowledge
   Team related process issue

I. Perpetuating team learning to enhance practice
   Collective knowledge
   Team practice with expert knowledge and a common goal
   Team collective knowledge
   Build relationships within and outside the team
   Getting other team leaders to share the process
   share a vision among team members
   Developing an area of clinical specialization

J. Organizational strategies for supporting team learning?
   Team structure for sharing knowledge top-down
   Systems support
   Shared Vision
   Computer/Internet Information Sharing
Appendix F:

Categories from second stage analysis

A. Who is leading team learning?

1. Clinical team member seen as a team leader
   a. self-awareness in the team
      i. Self-awareness leads to role modeling in the team
   b. aware of others
      i. Learning from the team’s diversity
      ii. Supporting autonomy in team care
      iii. Being sensitive and respectful to others

2. Clinical team leader seen as a team member
   a. Organizational structured leader also part of the day to day work and learning
      with others in the team
   b. Creating the structures and resources for learning
   c. Engaging and connecting others to the team’s vision

B. How is clinical team learning facilitated/happening/enacting?

1. Focus on socializing knowledge
   a. Creating a safe team environment
      i. to surface new ideas
         a. spontaneously and unsolicited
            a. Express problem concern
            b. Excitement for sharing
            c. Alerts, heads –up, cautions
      ii. to share clinical practice opinions
         a. Voice opinion based on experience
            a. Teaching event
            b. Experience based
            c. Forms of solutions
      iii. to recognize knowledge experts
         a. Solicited
            a. Response to question
   b. Managing tensions among organizational structures
      i. Team members with various reporting structures outside the team
      ii. Team members with multiple workload distributions and work schedules
      iii. Team members with legal responsibility while engaging interprofessional care
   c. Creating informal reflective process as part of everyday practice
i. During practice planned team debrief
ii. Discussing the undiscussables and indulging the appetite in food delights.

d. Supporting evolving spontaneous learning events
i. During practice spontaneous huddles- dyads and triads
   a. Peer to peer
   b. Mentor to student
   c. Student to peer
   d. Researcher to peer
   e. Researcher to researcher
ii. Tacit uptake
   a. Beard (attention-diverting person) for team learning
   b. Incidental

e. Developing formal learning processes
i. Patient care rounds
   ii. Morning report
   iii. Education rounds
   iv. Central Bulletin board

2. Emphasize interprofessional team mentoring
   a. Shadowing team members
   b. Integrating student learners from various professions
   c. Seeking knowledge outside of the team from other departments

3. Collaborating research projects
   a. Developing interprofessional research projects
   b. Coordinating care with research protocols
   c. Coordinating research projects with patient care

C. What are team members learning?

1. Content of knowledge
   a. Direct Patient care
      i. Patient care
      ii. Work related information
   b. Personal
      i. Personal information
      ii. Non-work related gossip
   c. General Knowledge
      i. Transitory working conditions
      ii. Patient managed protocols
      iii. Pre-existing solutions
      iv. Professional/discipline specific knowledge
      v. New discoveries
      vi. Latest research projects
   d. Created Team Collective Knowledge
i. Transitory working conditions
ii. Patient managed protocols
iii. Pre-existing solutions
iv. Professional/discipline specific knowledge
v. New discoveries
vi. Latest research projects

D. Enablers of team learning to enhance practice?

a. Social team strategies
   i. Connecting knowledge to a deeper level of understanding
   ii. Building relationships within the team
   iii. Learning to share a vision among team members
   iv. Developing an area of clinical specialization

b. Organization strategies
   i. Systems support
   ii. Learning Support

c. Community links
   i. Building relationships outside the team
   ii. Learning to share a vision among patients and community
   iii. Developing an area of clinical specialization
   iv. Connecting knowledge to a deeper level of understanding within the community