Physical Therapy Continuing Professional Education:

An Environmental Scan and Needs Assessment

by

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A thesis submitted in conformity with the requirements for the degree of Master of Arts
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Abstract

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As public sector health care delivery is rapidly shifting, physical therapists are challenged to adapt, in order to be proactive in dealing with these changes. Utilizing an environmental scan and needs assessment, this study investigated the future needed skills and behaviours of postgraduate physical therapists that can be met through educational interventions. Interviews with seven physical therapy opinion leaders and two focus groups of practicing clinicians, were conducted to identify the driving forces for change in the profession. The results from a gap analysis of current perceived needs of clinicians were contrasted with the experts’ projections of future physical therapy directions. The major findings indicate that physical therapists will need further development in a variety of non-clinical areas to effectively work in their new health care roles. The continuing professional education implications of this study reveal valuable insights into the future needs of physical therapists in the public sector.
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Chapter 1: Introduction

Too few professionals continue to learn throughout their lives, and the opportunities provided to aid and encourage them to do so are far less abundant than they should be. (Houle, 1980, p. 303)

1.1 Introduction

This chapter will outline, define and provide a framework for this research study investigating the continuing professional education needs of physical therapists. I will begin with background information about why this study is important to me. I will present the purpose of the research and describe the rationale for the study. Finally, I will provide definitions of terms used throughout the study and then present an overview of the remaining thesis chapters.

1.2 Background to the Study

I am a physical therapist. I make this statement on both a personal and a professional level as this has helped to create the person that I have become. My interest in health care began at a very young age and thus my education and extra-curricular activities were very focused on entering the profession of physical therapy. When I graduated from the undergraduate Physical Therapy program and first started practicing, I was thrilled with my work and my profession. For seven years, I practiced in a variety of areas of health care physical therapy, but then I began to notice large changes in my profession and in my role within the organization. I was being asked to take on professional leadership roles and encouraged to be involved in teaching and research with the University. Furthermore, I was seconded to a six-month restructuring project at my workplace organization and therefore was required to represent not only my profession but all clinical practitioners. Quite suddenly, I became aware that I needed different knowledge
and skills to effectively function in these new roles. My formal training as a physical therapist did not prepare me for these new positions. I noticed that my professional colleagues were also struggling with balancing new responsibilities. The accumulation of these experiences and observations resulted in my initial research questions, and ultimately in the formation of my Master’s thesis.

Concurrent with this professional growth, I was asked to sit on the Continuing Education Committee for the University of Toronto’s Department of Physical Therapy. Since 1993, I have developed and organized post-graduate courses for practicing physical therapists. The majority of our courses were extremely well attended; however, the committee recognized that conducting a needs assessment would provide valuable information for our future continuing education activities. Due to my interests in this field, I began to investigate methods of conducting educational needs assessments. The more that I studied and read, the more concerned I became about the type of data that needs assessments provide. My concern was that if you ask physical therapists what continuing education needs they have, you will only learn about their perceived needs. What if many practicing clinicians are not aware of the future changes in health care? What if physical therapists do not realize the challenges and role changes that they will be facing in the immediate future? If my career experiences were similar to others’, then these professionals might also be asked to serve in different roles from those their training provided. Would physical therapists be able to identify, in a needs assessment, the future needed skills and behaviours?

I hoped that I could find a methodology that would help to determine future trends and unperceived needs facing physical therapy professionals. During my research, I read about ‘environmental scanning’ as another technique used to assess needs in continuing professional education. The emphasis of environmental scanning is on the present and the future, and it attempts to identify forces for change within a profession. This information can then be used to assist continuing education providers to effectively plan activities to meet the future needs of the profession. Environmental scanning, as a needs
assessment methodology, is still relatively new in the field of continuing professional education. In the formation of this research project, I therefore needed to extrapolate from the business and higher education literature and adapt the methodology to fit with the physical therapy profession's needs. I also decided that the most interesting and potentially useful information would be to compare the needs of practicing clinicians with what the opinion leaders or experts predict that physical therapists will need in the future.

This thesis is therefore the sum of many personal and professional factors. My review of the literature and my discussions with practicing physical therapists have heightened my awareness of the gap that exists in their continuing professional education. I enthusiastically made the decision to help to identify the future educational needs of physical therapists. I realized that I needed to obtain a theoretical understanding of changes in health care and in physical therapy roles in the public sector. I needed to speak with leaders in the field and clinicians who are currently practicing, to learn from them what directions the profession might take in the future. My experiences led me to believe that continuing professional education could be used to help physical therapists be prepared to face a challenging future of change and growth.

1.3 The Purpose of the Study

The purpose of this study is to conduct an environmental scan/needs assessment of postgraduate physical therapists to identify the future needed skills and behaviours that can be met through educational interventions.
1.4 The Research Questions

1) What are the biggest challenges facing physical therapists in the next 5 years?

2) What will be the changes to the role of physical therapists in the public sector in the year 2005?

3) What are causes or reasons for these changes to the role and direction of physical therapy?

4) Given the new directions of the profession of physical therapy, what skills and behaviours will physical therapists need to meet these challenges in the future?

5) What should the Continuing Education Committee offer to meet the needs of physical therapists in the future?

1.5 The Rationale for the Study

The task for this generation is to move ahead as creatively as possible, amid all the distractions and complexities of practice, to aid professionals constantly to ... add to their knowledge, and perfect their skills so that they can discharge their responsibilities within the context of their own personalities and the needs of the society of which they are collectively a part. (Houle, 1980, p.316)

In light of the current radical changes in the health care system, it is not surprising that the physical therapy profession and continuing education providers are challenged to identify the physical therapy future needed skills and behaviours. Physical therapists must adapt by learning new skills and behaviours to be proactive and not reactive to these changes. The University of Toronto Department of Physical Therapy’s Continuing Education Committee strives to provide post-graduate physical therapists with educational interventions that address the changing needs of the professional community. The Committee’s terms of reference suggests that the long-term plans of the profession be incorporated in the provision of continuing education activities. A needs assessment of the professionals’ perceived needs alone is insufficient to identify the skills and behaviours that physical therapists require for the future. To identify these future changes and learning needs of the professional community, an environmental assessment
was deemed to be useful. By conducting a needs assessment and environmental scan of the future needed skills and behaviours for physical therapists, it is expected that continuing education providers will be better able to meet the profession’s educational needs in the emerging health care system.

1.6 Terms and Definitions

The following are definitions for the terms that I used throughout the preparation of this thesis. Many of the definitions are from the literature (and therefore referenced accordingly). Some of the definitions have been entirely written or modified by myself and my research assistant to better describe the meaning of the terms, as we understood them.

**Advocate:** To speak, plead, or argue in favour of. One that pleads in another’s behalf (Nelson, 1997).
Defending, justifying, supporting. Ties to professional identity.
See the difference between advocate and marketing.

**Assignment:** The transfer, by a physiotherapist, of specific components of a client’s service to support personnel (College of Physiotherapists of Ontario, September 1996).

**Behaviour:** The manner of conducting oneself, demeanor or deportment of any or all of a person’s total activity.
The steps or activities performed to produce the outputs that meet the quality criteria (Ontario Society for Training and Development, 1995).

**Communication:** The art and technique of using words effectively in imparting one’s ideas. To convey information about, make known, to reveal
clearly. To have an interchange, as of ideas. To express oneself in such a way that one is readily and clearly understood (Nelson, 1997).

**Competency:** A cluster of related knowledge, skills and attitudes that affects a major part of one’s job (a role or responsibility) that correlates with performance of the job, and that can be measured against accepted standards (Canadian Physiotherapy Association, April 1998).

**Conceptual Skills:** The general analytic skills, the reasoning power and logical cognitive processes.

**Consultant:** A consultant is a person in a position to have some influence over an individual, a group, or an organization, but who has no direct power to make changes or implement programs (Block, 1981).

The consultant, who is the specialist, and the consultee, who is requesting the consultant’s assistance in addressing an issue with which he/she is having some difficulty and with which he/she has decided is within the other’s area of specialized competence (West Park Hospital – working definition).

**Continuing Education:** A systematic effort to provide education beyond formal education and initial entry level into a profession (Belanger, 1997).

**Continuing Medical Education:** Continuing education (see above definition) for physicians.
Continuing Professional Education: Learning experiences that enhance and expand the skills, knowledge, and attitudes of professionals to enable them to remain current and to deliver competent professional services to clients, their respective profession, and the public (adapted from Tassone and Heck, 1997).

Delegation: The transfer of authority from a professional authorized to perform a controlled act to another professional who does not independently have the authority to perform the activity (College of Physiotherapists, September 1996).

Environmental Scanning: (In the health care professions) refers to the methods that continuing professional educators use to assess the internal and external forces at work within the health, social and political contexts to help identify the current and potential learning needs and trends (Hatch and Pearson, 1998).

Evidence-based practice: Practice that has a theoretical body of knowledge, and uses the best available scientific evidence in clinical decision making and standardized outcome measures to evaluate the service provided (Canadian Physiotherapy Association, April 1998).
**Governance:** Refers to the functions and processes in which decisions are made, authority and power are allocated, and directions are set for the organization. Refers to making effective decisions and taking control of the direction and the future of self or of the group (Canadian Physiotherapy Association, 1999).

Difference between governance and leadership: Governance is the rules and the laws, which all professionals must follow (every physical therapist now needs to self-govern), and Leadership is the leading of others (not everyone needs to be a leader). See Leadership definition.

**Interpersonal Skills:** Some ability to put ideas into words, to listen, to give support, to disagree reasonably, to basically maintain a relationship (Block. 1981).

The interpersonal and human relations skills or “people skills” which includes social, psychological and communication components.

**Leadership:** The process by which a person is able to influence fellow group members to create, identify, work toward, achieve and share mutually acceptable common goals (Priest, 1987).

One who has influence to guide or direct in a course. To guide the behaviour or opinions of others (Nelson, 1997).

Someone with the skills, actions and abilities to lead others.

Difference between leadership and governance: Leadership is the leading of others (not everyone needs to be a leader), and Governance is the rules and the laws, which all professionals must follow (every physical therapist now needs to self-govern). See Governance definition.
Learning: The process by which people gain knowledge, sensitiveness, or mastery of skills through experience or study (Houle, 1980).

Marketing: The act or business of promoting sales of a product, as by advertising and packaging (Nelson, 1997). The ability to ‘sell’ the profession. Directly affects human resources and financial budgets. ‘How to market’ is a set of skills that can be learned. See the difference between marketing and advocating.

Mentor: Description of a non-parental, competent and trustworthy figure who consciously accepts personal responsibility for the significant development and growth of another individual.

Mentoring: A behavioural activity that refers to the one-to-one relationship that evolves through reasonably distinct phases between the mentor and the adult learner.

Needs Assessment: Refers to any systematic approach to collecting and analyzing information about the educational needs of individuals or organizations. Educational needs can further be described in terms of knowledge, skills, and attitudes, or as levels of competencies (Moore and Cordes, 1992).

Networking: Occurs through using contacts to extend information and to achieve goals (Canadian Physiotherapy Association, 1999).
Physiotherapist: As autonomous health professionals, physiotherapists work in partnership with clients and relevant others to define, achieve and maintain optimal health outcomes. In practice, the focus is on improving functional independence and physical performance, managing physical impairments, disabilities and handicaps, and promoting health and fitness. Physiotherapists are accountable for professional judgments and apply a collaborative and reasoned approach to assessment, diagnosis and planning, intervention, and outcome evaluation. *In this document, the terms physical therapy and physiotherapy are used synonymously, as are physical therapist and physiotherapist to describe the primary health service practitioner licensed or registered to use that title* (adapted from Canadian Physiotherapy Association, April 1998).

Private Sector: Independent settings such as private practices. Not the community, hospitals or institutions.

Professional: One who is deeply versed in advanced and subtle bodies of knowledge, which one applies with dedication in solving complex practical problems. They learn by study, apprenticeship and experience by constantly moving forward and backward from theory to practice so that each enriches the other. Such people protect one another and are sometimes extended special protection by society far beyond that granted to other citizens (Houle, 1980).

Professionalism: Professional status, methods, character, or standards (Nelson, 1997).

Refers to the essential outcomes or ideals that identify and define a profession (Houle, 1980).
Professionalization: A dynamic concept that refers to the process by which an occupation moves closer to the ideal of professionalism. It emphasizes professional development and lifelong learning, and it is this concept of professionalization that allows for the emergence of professional behaviours (Houle, 1980).

Public sector: Hospitals, community and institutions. Not private practice clinics.

Role redesign: The adaptation or modification of a job or position as that person or the organization’s needs change.

Self-governance: Not controlled or swayed by others. Characterized by self-control (Nelson, 1997).
Take responsibility for own actions. The power and control over your own actions. Autonomous. See the definition for governance.

Skill: The ability to do something. The demonstrated ability to apply knowledge and understanding to perform a task (Ontario Society for Training and Development, 1995).

Supervision: To oversee the actions or work of an individual to ensure the individual has the knowledge, skills, and abilities to perform a given task. Supervision allows the physiotherapist to make a judgment about the supervisee's abilities to competently perform certain tasks (College of Physiotherapists of Ontario, 1996).
Support personnel: Health workers who enhance the role of physiotherapists in the provision of physiotherapy services by performing delegated tasks under professional supervision (Canadian Physiotherapy Association, April 1998).

Technical Skills: Area of expertise. Trained in a specific field or function (Block, 1981).
The methods, processes, procedures, techniques and the use of specific equipment to gain competencies.

1.7 Overview of Thesis Chapters

In Chapter 2, I review the literature that surrounds and informs the study and provision of physical therapy continuing professional education. Chapter 3 describes the research methodology and design used for gathering and analyzing the data to explore the research topic. In Chapter 4, I present the collated and summarized research findings from both the interview and focus group data. Chapter 5 provides a theoretical analysis of the findings, including an interpretation of the differences between the experts and the practicing clinicians. In Chapter 6, I present a summary of the conclusions and implications for both practice and further theoretical exploration.
Chapter 2: Literature Review

2.1 Introduction

To develop a framework for my thesis, this chapter will present a selected literature review. I will begin with an overview of recent changes to the current health care system and the subsequent changes to health care professionals’ roles. I will then review how these changes have a direct impact on the education of health care professionals. I will define continuing education (CE) and briefly introduce ideas about the provision of, and motivation for, continuing education, and will then highlight what professional bodies are doing to address health care changes through CE. The literature on physical therapy continuing professional education (CPE) will be explored. I will outline needs assessments as a methodology for identifying educational learning needs and review the use of needs assessments in CPE. Next, environmental scanning as a needs assessment technique will be introduced and its use in CPE will be reviewed. I will investigate needs assessment and environmental scanning approaches for the profession of physical therapy, and specifically explore their uses for the University of Toronto’s Department of Physical Therapy. Finally, I will outline the use of gap analysis to identify educational needs in CPE.

2.2 The Changing Health Care System

Health care delivery has undergone dramatic changes in recent years. This revolution in health care is occurring as a result of changes in the practice of medicine and in society. Some of the changes affecting the system include legislated practice requirements, advanced technology, changing demographics, increasing consumerism, an emphasis on effectiveness and efficiency, and the shifting focus to community care (Towle, 1998; Beggs and Sumsion, 1997). In 1996, Canadians spent over $75 billion ($2,500 per capita) on health care, or 9.5 per cent of Canada’s Gross Domestic Product (Theobalds and Bryant, 1998). In Ontario, approximately 34 per cent of the annual budget (the largest
recurrent expenditure) was spent on health care. In recent years, Ontario has undergone massive health care reform and restructuring. In 1996, the Ministry of Health announced that funding to Ontario hospitals would be reduced by 18 per cent over a three-year period (Theobalds and Bryant, 1998). The Ontario government, in April of 1996, established the Health Services Restructuring Commission (HSRC) to restructure health services in the province. District health councils were set up across Ontario to assist in the planning and restructuring of health services in their areas. The result has been rapid and continuous changes to the entire health care system.

Change has become an integral part of practice for professionals working in the current health care environment (Beggs and Sumison, 1997). In recent years, the many societal changes have resulted in subsequent changes to the roles and practices of health care practitioners (Brockett and Bauer, 1998). “In the allied health and nursing literature it has long been recognized that health science graduates engage in their professions in the context of a rapidly changing health care system, whether change is measured in terms of available resources, professional role, prevailing policy, or developments in the knowledge base of the profession” (Harris et. al., 1998, p. 275). Some of these changing professional roles are legislated and others are dictated by institutional and economic considerations. There is a rising need to match staff skills to the new tasks and to emerging technology (Towle, 1998). With the rapid changes in Ontario, all health care professionals must prepare themselves to face an uncertain future, and are indeed challenged to keep abreast of the changes to the health care system and to their professional roles.

2.3 Continuing Professional Education and Health Care Change

The current health care system changes have a direct impact on the education of health care professionals (HCP). The literature clearly outlines the changes which will challenge the health care profession in the 21st century and to which continuing professional education must respond. The pace at which health care changes are “now affecting
practice and service delivery requires practitioners to rapidly become aware of new information and incorporate new skills into their daily practice. Basic professional education is no longer sufficient for a lifetime of practice” (Beggs and Sumson, 1997, p. 280). Towle (1998), states, “the education system must be better able to respond to the rapid changes in the outside world” (p.301). Continuing professional education must help all health care practitioners to adapt to change. It is essential that this begin during basic education, be refined during postgraduate training and maintained or updated through CPE (Towle, 1998). Brobst et. al. continues by stating, “a call has gone out for health professional education to be reformed to help practitioners deal not merely with new knowledge in the professional realm but also to give them the skills that will make them effective caregivers in the coming century when they will be practicing in new environments of care” (1995, p. 711). Since health care changes are expected to continue, people need to know how to learn and how to keep learning throughout their working lives (Foot, 1996).

2.3.1 Continuing Professional Education
Continuing education may be defined as a systematic effort to provide education beyond formal training and initial entry level into a profession (Belanger, 1997). Tassone and Heck defined continuing professional education as “learning experiences that enhance and expand the skills, knowledge, and attitudes of professionals to enable them to remain current and to deliver competent professional services to clients, their respective profession, and the public” (1997, p. 97). CPE has therefore been identified as a method to promote development of competencies that allow practitioners to meet the changing demands on their practice (Beggs and Sumson, 1997). Continuing status as a professional person usually requires a practitioner to offer evidence of efforts to keep abreast of new developments in the field (Brockett and Bauer, 1998). Professional associations and regulatory bodies may utilize CPE to assure professional quality. Therefore, the need for a professional to keep up-to-date has been accepted both as an individual obligation and by mandated regulations (Houle, 1980). With the half-life of information retention at approximately five years, and perhaps shortening due to
technological advances, a lifelong commitment to continuing professional education in its many forms will play a vital role not only in maintaining acceptable levels of quality, but in increasing the standards of care (College of Physiotherapists of Ontario, 1996).

The field of CPE is expanding rapidly, both independently and through linkages with adult education and CPE theory and practice (Mann and Chaytor, 1992). Higher education institutions, professional associations and regulatory bodies are among the many concerned with, and involved in, CPE. It is widely recognized by the Canadian academic programs that there is a need to undergo major curricula review in order to prepare students for practice in the 21st century (Carpenter, 1996). Foot states, “the universities will be an integral part of this new economic system because many people are going to need retraining and re-educating during their working lives. Our post-secondary institutions will have to become more responsive and flexible to meet the changing needs of their clientele. The need for education of people already in the workforce will grow” (1996, p. 157). Accountability and quality assurance processes have taken centre stage in the drive to change practices in the higher education sector. The development and implementation of professional CE programs requires much planning. Karp states “planning professional CE is too important to be left to chance” (1992, p. 242). Continuing education for professional competence is motivated by the profession’s collective commitment to the dynamic and evolving standards of accepted professional practice. CPE providers are therefore certainly concerned with the competence of HCP (Tassone and Heck, 1997; Harris et. al., 1998; Brockett and Bauer, 1998). All of the health care professions are increasingly involved with the challenges of CPE provision.

2.3.2 Motivational Orientations in CPE

The motivation of health care professionals who attend CPE programs has been studied extensively. Tassone and Heck’s 1997 review of the motivational orientations in CPE found that “studies across health care professions show that practitioners participate in CPE primarily for the sake of knowledge and not because of external pressures” (p. 104).
Nurses who voluntarily participate in CPE have shown more positive changes in practice as a result of CPE, when compared to nurses who were mandated to attend. Physical therapists' motivational orientation for clinical CPE topics is generally to gain new knowledge. The ultimate success and participation of practicing physical therapists in a CPE activity, has been shown to be largely determined by the clinicians' evaluation of its pertinence to their professional practice. This data suggests that the motivational orientations of health professionals differ from those of the general public. “When adults were forced to give the single, dominant reason for participation in CE they chose a job-related reason” (Karp, 1992, p. 178). CPE program planners should therefore focus their efforts on providing educational opportunities in pertinent interest areas (Canadian Physiotherapy Association, 1999; Tassone and Speechley, 1997; Karp, 1992; Tassone and Heck, 1997). Health care practitioners continue to seek CPE activities in order to meet the changing demands on their practices.

2.4 Health Care Continuing Professional Education

The health care literature is clear that the professions are striving, through CPE, to help practitioners adapt to the changing health care system. A 1998 survey of physician continuing medical education (CME) activities was conducted by the Society for Academic CME. The summary report of current trends highlights that the quality of courses is perceived to be improving, the number of participant attended courses tends to be increasing and faculty interest in participating in the school's CME tends to be stable, if not increasing. The nursing profession published a Report of the Nursing Task Force in January of 1999, at the request of Ontario’s Minister of Health. It states: “as the health care environment continues to change, there needs to be greater emphasis on continued and advanced education” (p. 15). “Although many nurses have knowledge that is relevant and can be transferred to a new position, learning needs differ from unit to unit and they must acquire new knowledge and adapt to new policies, different techniques and new cultures” (Nursing Task Force, 1999, p. 28). The Registered Nurses Association of Ontario and the Ontario Ministry of Health directly addressed these nursing CPE needs
through their May 1999 Conference entitled, ‘The Changing World of Nursing: Employment Trends and Job Fair.’ Sessions during this first annual conference included: *The changing world of work – enhancing your career through education; Employment trends and opportunities; Getting the skills you need; and RN entry to practice – competencies for the year 2005.*

In the health professions, changes in provincial legislation have accelerated the interest and research into CPE. On December 31, 1993, the Regulated Health Practitioners Act (RHPA) replaced the Drugless Practitioners Act (DPA) and many of the health professions became self-regulated. Each of the regulated health professions were required to have a regulatory college and this governing body’s role was expanded to encompass quality management and patient relations programs (College of Physiotherapists of Ontario, Summer 1999). As part of the required quality assurance program, most of the regulatory colleges took a voluntary or mandatory approach to CPE. In 1997, 12 of the regulatory colleges had a voluntary approach to CPE while seven had mandatory approaches and one college was undecided. The Ontario College of Pharmacists in 1997 conducted a survey of self-perceived CPE needs as part of the College’s Quality Assurance Program (Des Roches and Marini, 1998). The survey results identified 13 critical competencies for newly and already registered pharmacists including: researcher, lifelong learner and an education advocate for the profession. The Canadian Dental Association’s Task Force On Dental Education, which the association established in 1994, reviews issues and trends in dental education and presents information, conclusions and recommendations on the future of dental education in Canada (Canadian Dental Association). The College of Occupational Therapists of Ontario’s Quality Assurance Program, which is mandatory for all registrants, is intended to ensure that Occupational Therapists (OTs) recognize and understand the standards of practice that are expected of them. This program requires OTs to be involved in CPE for professional competence that will: 1) maintain the knowledge and skills that they have acquired at some earlier time and 2) bring their knowledge and skills up-to-date with the essential features of evolving practices (Brockett and Bauer, 1998). The Ontario Society of Occupational
Therapists' position on continuing professional education is that CPE is primarily a voluntary activity on the part of an individual OT, who desires to improve his or her skills and standing as a member of the profession (Brockett and Bauer, 1998).

2.4.1 Physical Therapy Continuing Professional Education

The profession of physical therapy is greatly concerned with the changing health care system and the challenges this poses for CPE. In the 20th century health-care environment everything has changed, both from the perspective of the health-care practitioner and from the perspective of the regulatory college (College of Physiotherapists of Ontario, Summer 1999). Carpenter, the 1995 recipient of the Award for Excellence among Physical Therapy Educators, states "as a profession, physical therapists’ attention has tended to be focused on direct patient care and we have left the larger health care picture – administration, political lobbying, marketing, and theory building – to others. The majority of us worked in health care institutions and were ill-prepared for the radical changes we are now experiencing" (1996, p. 13). The health care shift towards evidenced-based practice, clinical research and the advent of degree programs (both Bachelor and Master’s) as the entry level to physical therapy practice are some of the examples of changes to the profession. If the physical therapy profession is to meet the challenges of health care in the next century, education at an undergraduate, graduate, and continuing education level plays a central role in sustaining the culture of physical therapy (Carpenter, 1996).

At the present time, there is no Canadian physical therapy national standard for maintaining professional competence, for delivering CPE programs, or for monitoring what physical therapists are doing to keep abreast of changes within their profession (College of Physiotherapists of Ontario, 1996). The role of the College of Physiotherapists of Ontario (CPO) is to protect the public by assuring the quality of physiotherapy practice. The CPO’s ‘Code of Ethics for Physical Therapists’ guidelines states that the physical therapist should engage in life-long learning to continually improve practice (September 1996). The fundamental principal of competence states
that: "the physical therapist has the necessary education, judgement, skill and experience to deliver services in accordance with the profession's Standards of Practice. Such services include client care, education, research and administration" (College of Physiotherapists of Ontario, September 1996, p.4). Under the direction of the Regulated Health Professions Act (RHPA), the CPO implemented a Quality Management Program (QMP) in January of 1997. This program will assure the quality of professional practice and will promote continuing professional development and competence among its members. The QMP initiated a Learning Log in February of 1999 to help members track their ongoing learning and to serve as a record of ongoing learning activities. "We recognize that ongoing learning is a critical component of ongoing competency and we must embrace learning if we are to remain a self-regulated profession in years to come" (College of Physiotherapists of Ontario, February 1999, p.1). All members holding independent practice certificates of registration with the CPO are required to complete a learning log each year. The College of Physiotherapists of Ontario has therefore taken a strong stance on the importance of CPE for all its members.

Physical therapy professional associations have also recently advocated the crucial role that CPE plays in the changing scope of practice. One mandate of a professional association is to offer opportunities for professional growth in clinical practice, education, and research to its members (Brockett and Bauer, 1998). The Canadian Physiotherapy Association (CPA) is the national professional organization representing more than 9,000 registered physical therapists and physical therapy students across Canada. CPA's mission is to provide leadership and direction to the profession of physical therapy, foster excellence in practice, education and research and to promote high standards of health in Canada (CPA). In 1997, the President of the CPA's report stated "a subject I believe is absolutely critical to our survival as credible health practitioners is our continuing education. Physiotherapists, like all other health care practitioners, must rely primarily on CPE courses to maintain, update and upgrade their knowledge and skills" (Belanger, p. 249). "The CPE choices made by every physiotherapist in this country has a quiet, but profound, impact on the shaping of our
professional credibility and of our scope of practice” (Belanger, 1997, p. 251). The Canadian Physiotherapy Association has placed a clear and direct emphasis on the importance of CPE for the profession.

Since the practice of physical therapy is continually changing, the profession must re-examine its role and the continuing educational activities of physical therapists. Lopopolo (1997) found that the decentralization of physical therapy services had a profound effect on patient care delivery. She states that physical therapists have had to assume greater and more demanding roles in the delivery of patient care. Lopopolo’s study further identified that “physical therapy management and staff perceived a need to have mechanisms to retain their professional identity while working in an environment where role boundaries were blurring” (1997, p. 931). In 1995, Schleifer-Taylor’s study of physical therapy at Sunnybrook Health Science Centre in Toronto found that physical therapy generalist care trends were incongruent with specialized health care trends. She concluded that the profession needs educational strategies to ensure that physical therapists are prepared to meet these changing needs in health care. The Canadian Physiotherapy Association (1999) found that clinicians are challenged working in a restructured and ever-changing environment. Physical therapists’ roles have been drastically shifted with the organizational change to a program management structure. Indeed, the literature clearly agrees with Karp (1992), that it is time for physical therapists to plan CPE that will provide a means of developing leadership and assuring growth of the profession.

2.4.2 Continuing Professional Education at the University of Toronto

Universities are one of the providers of CPE activities for health care professionals. It is appropriate that the focus of CPE is in association with the universities, because these are the groups that are both at the leading edge of professional advances, and asking pertinent questions about resource use (Brockett and Bauer, 1998). The Canadian Physiotherapy Association President states, “if you want to be absolutely sure that the next continuing education course you take is officially recognized within and outside your profession,
you should first look at the bank of courses presented by, or endorsed by, a university” (Belanger, 1997, p. 251). The University of Toronto's Faculty of Medicine has an active Continuing Education Faculty Council. Foot, in his study of Canadian demography, says that the University of Toronto (U of T) has the good fortune to be located in the centre of a large city and close, therefore, to the workplace of managers and other workers requiring retraining and skills upgrading (1996). Within the U of T’s Faculty of Medicine, the Departments of Physical Therapy (PT) and Occupational Therapy (OT) also have Continuing Education Committees. Brockett and Bauer, in their 1998 review of CPE, state, “the U of T is the only university to have had formal committees in place to address continuing professional education for OTs and PTs. (McMaster University has recently established a committee to address CPE issues for OT and PT.)” (p. 239). The U of T Department of Physical Therapy’s Continuing Education Committee consists of practicing clinicians, academic faculty and clinical faculty with experience in a wide variety of physical therapy fields. The Committee’s terms of reference include the following two objectives: 1) To initiate and organize continuing education activities which promote the advancement of the body of knowledge relevant to physical therapists; 2) To incorporate the Scope of Practice and long-term plans of the profession in the provision of continuing education activities.

2.5 Needs Assessment

Experts in the field of continuing professional education regard needs assessment as an essential part of effective planning. The term ‘needs assessment’ refers to any systematic approach to collecting and analyzing information about the educational needs of individuals or organizations (Moore and Cordes, 1992). Educational needs can further be described in terms of knowledge, skills, and attitudes, or as levels of competencies. If health care professional associations are to offer opportunities for professional growth in clinical practice, education, and research to their members, the needs of these members must be determined (Brockett and Bauer, 1998). Educational needs assessments are a critical component of program planning, design, and evaluation, particularly in adult
education and CPE. A focused needs assessment, and the use of multiple educational activities based on the identified needs, has been shown to result in successful continuing medical education. The process of developing any course or activity for health professionals is greatly enhanced by an effective needs assessment that permits the clear identification of issues, skills, and topics that need to be addressed (Lockyer, 1998; Davis et. al., 1995; Mann and Chaytor, 1992). Lockyer concludes that a needs assessment is the cornerstone of program development of CPE (1998).

The assessment of learning needs has been examined using many methods that are thoroughly reviewed in the educational and medical literature. The literature clearly states however, that needs assessment achieves the most meaningful results if data are collected from multiple sources by using multiple techniques (Moore and Cordes, 1992). This is called ‘triangulation’ and is becoming increasingly incorporated into the process of needs identification. Triangulation is the use of multiple methods, data collection strategies, and/or data sources to “enable the practitioner to gain a more complete picture of what is going on and to cross-check information” (Lockyer, 1998, p. 191). Quality improvement in health CPE is based on the recognition that the needs of the learners are changing because the health system is changing (Brobst et. al., 1995). Using multiple methods of needs assessment assists in the continuous matching of educational products, activities, or services to the needs of learners.

2.5.1 Environmental Scanning as a Needs Assessment Methodology
Recently environmental scanning has been introduced as a powerful tool for assessing needs in CPE. Environmental scans in the health care professions refer to the methods that continuing professional educators use to assess the internal and external forces at work within the health, social and political contexts to help identify the current and potential learning needs and trends (Hatch and Pearson, 1998). Environmental scans are able to uncover emerging issues that will shape the future and will enhance decision-making and resource allocation, thereby managing the future directions in a constructive manner. Environmental scanning is a ‘systemic futures methodology’ that was developed
by Aguilar in 1967 (Lang, 1994). The aim of futures research is to help inform perceptions, alternatives and choices about the future. Morrison and Held (1989) define environmental scanning as a system structured to identify and evaluate trends, events and emerging issues important to the institution.

Environmental scanning as a needs assessment methodology has its historical basis in the business sector, specifically in Strategic Issues Management. Stoffles (1994) states that companies need to identify emerging changes early enough to gain advantage from them. He suggests that while exact knowledge of specific future events is still out of reach, the pattern of most likely future events is not difficult to find and interpret, and that specific high-probability events usually announce their coming clearly and well in advance (Stoffles, 1994). The effectiveness of using strategic planning lies, at least partially, in the fact that it places its emphasis on the external environment (Morcol and McLaughlin, 1990). Environmental assessment therefore involves identifying and analyzing the economic, demographic, social, political, and technological trends surrounding an organization. The techniques employed in scanning aim at uncovering the patterns of relationships among these forces (Morcol and McLaughlin, 1990). Environmental scanners essentially examine future changes, encourage the tracing backward from the future to the present for the implications of those changes, and then plan actions that are necessary to meet this future challenge (Wolfe and Stanton, 1992). Morrison concludes that the ultimate goal of environmental scanning is to alert decision-makers to potentially significant external changes before they crystallize, so that organizations have sufficient lead-time to react and adapt to the change (1992). Environmental scanning is a needs assessment methodology that “provides a framework for proactive, strategic decisions based on current or predicted changes” (Wolfe and Stanton, 1992, p.7).

Hatch and Pearson (1998) present a framework from which the provider in CPE can use environmental scanning as a means of educational needs assessment. Barnes (1998) introduces environmental scans as part of a business plan which can be very useful to CPE professionals in implementing strategic initiatives and evaluating performance.
Through the process of evaluating environmental trends and current operations, Barnes suggests that priorities for resource allocation can be established and future activities can be aligned with the overall goals of the organization (1998). Lockyer (1998) notes that educational environmental scanning activities regularly use several data sources to create a complete picture of professional practice and the needs of practitioners. Mann and Chaytor (1992) review Nowlen's (1988) ideas on the intertwined influences of individual and environmental factors and refer to Fox et al.'s (1989) theory of learning and change in physicians involving professional, personal, and social forces for change. They emphasize that the assessment of learning needs must reflect these new understandings. Environmental scans can assist continuing educators in determining learning needs and this information holds clues to current and future opportunities for, and threats against, professions or organizations (Gilbert and Simpson, 1995). Hatch and Pearson conclude that environmental scans provide a practical and systematic means of supporting the overall CPE planning effort (1998).

The literature on environmental scanning notes that one of the benefits of this needs assessment technique is that it can address some of the unperceived needs of learners. Mann and Chaytor (1992) state, "traditional needs assessments frequently have identified only those needs to which the provider can respond or which, from the provider’s perspective, should exist" (p. S4). Towle (1998), suggests that continuing medical education should be rooted in a systematic study of real needs, not just the perceived needs of doctors. CPE literature suggests that there is a lack of correlation between perceived and actual learning needs. Tracey et al. (1997) found that general practitioners are not able to accurately assess their specific learning needs, and hence self-directed learning activities may be misdirected. This study used a random sample of general practitioners who completed both a self assessment and a true-false objective test of their level of knowledge on three specific topic areas. Correlations between the self assessment and test scores were poor for all three topics studied and suggest that "doctors' perception of knowledge is no indication of actual knowledge. To make professional development activities more efficient and effective a more objective
assessment of needs is necessary” (Tracey et. al., 1997, p. 1426). Seisser and Epstein (1999) present an outline of how to construct professional education externalization models that attempt to bridge perceived educational needs with the needs of the health care organization. In the health professions, Tassone and Speechley (1997) report that although it is the responsibility of CPE providers to meet professionally expressed needs, there is an added demand to challenge those needs in relation to the technological, social, political, and professional changes occurring in health care. Environmental scanning as a needs assessment methodology can facilitate the identification of learning needs.

2.5.2 CPE Needs Assessments and Environmental Scanning

Environmental scanning is a widely used strategic planning tool in business and higher education (Stoffels, 1994, Morcol and McLaughlin, 1990). As a needs assessment technique, environmental scanning is starting to gain more exposure and use in CPE. Many professional organizations and licensing bodies are attempting to conduct environmental scans and visioning for the future. Symington (1994), in his article, Megatrends in Rehabilitation: a Canadian Perspective, writes that we must anticipate rather than react. We need more appropriate data and must work to achieve our planned goals. The Canadian Nurses Association has used existing scenarios to explore the alternative futures that their profession may face (Rodgers, 1997). In 1997, the Canadian Medical Association embarked on a study of the future of medicine by identifying the driving forces of change (CMA Futures Project, 1998). Hatch and Pearson (1998) note that environmental scanning as a needs assessment technique has been presented at several CME national meetings. Van Rosendaal et. al. (1994) utilized an environmental scan in their multifaceted approach to needs assessment in gastroenterology for family physicians. The Ontario Society of Occupational Therapists (OSOT) has recently conducted surveys to identify the interests and needs of its members for CPE (Brockeott and Bauer, 1998). Wolfe and Stanton (1992) introduced environmental scanning as a methodology for strategic and effective long-term planning in the field of nursing. The authors emphasize that an environmental assessment can project what the profession’s needs will be in the future and offers an approach to plan accordingly.
2.5.3 Environmental Scanning Limitations

Environmental scanning techniques and methods are not without their limitations and potentials for bias. When used correctly and critically, environmental scans provide valuable information for continuing professional educators. When the scans are performed inaccurately or incompletely, the resultant data may be fraught with errors that can negatively impact upon CPE planning and provision. One limitation to utilizing environmental scans as a needs assessment tool is that there are few published examples of its use in the continuing professional education literature. Hatch and Pearson write, "recent searches of Medline, ERIC and continuing medical education databases revealed only rare and ill-defined uses of environmental scanning as a needs assessment tool" (1998, p. 179). When planning to conduct a scan for CPE purposes, educators must extrapolate from the existing templates. Researchers may therefore face an increased risk of poor methodologies when errors or limitations to their studies are unknown.

Another potential limitation of environmental scanning is that the interpretation of data may be wrong or limited due to the researcher's subjective perspective. Lang (1994) in her environmental scanning critique, notes that scanning is and always will be an imperfect activity because it is impossible for a totally objective approach to be taken when surveying the environment. Hatch and Pearson (1998) also warn that the interpretation of documents and materials carries some potential for misuse if the interpretation is wrong or taken out of context. Personal political agendas may interfere with the data collection or the scanning process. Environmental scanning authors emphasize that all documents need to be critically analyzed (Morrison, 1992; Hatch and Pearson, 1998). The total picture of the environment can only be learned if both internal documents and externally produced written materials are included. Morrison summarizes by stating, "Be aware that there are few guidelines on how to do scanning. There are no hard and fast rules that lead to 'correct' interpretations. The data do not speak for themselves. Scanner's skills, abilities, experiences, and judgements are critical to interpreting the data" (1992, p. 94).
As with most techniques, there are also some inherent disadvantages associated with environmental scanning. Hatch and Pearson (1998) note that in some cases, data sources for environmental scanning tend to be too broad to be of value in planning focused learning activities. “In other words, they lack the specificity to be of direct value and have to be discarded in favour of other data” (Hatch and Pearson, 1998, p. 182). Obtaining external data may be very time consuming and may require substantial financial expenditure. Organizations may charge fees for the release of information or documents. Wolfe and Stanton write that, “the establishment of an environmental scanning process does require a certain commitment of time and human resources by an organization. In fact, staff time and administrative expenses are the major costs of this type of project” (1992, p.7). A further potential disadvantage with collecting data is that ethical issues do arise, such as the confidentiality of materials gathered. Organizations may not be willing to share unpublished data or documents that are written internally. These materials may have been designed for limited distribution only or there may be issues around distrust related to competition for limited resources. Environmental scanners may face multiple challenges in data collection and analysis.

While disadvantages do exist, environmental scanning literature provides methodologies for evaluating the usefulness of documents (Hatch and Pearson, 1998). These techniques are helpful in minimizing the limitations that the materials may have. “When numerous reports and documents are available for use in environmental scanning, it can be expected that varying levels of usefulness and reliability exist among the different sources. CPE planners need to make use of narrative and content analysis regarding the relative importance of each document examined as potential needs assessment materials before accepting the information at face value” (p. 181). Morrison (1992) lists a summary of resources available for environmental scanning and includes a breakdown of the sectors that should be included in a complex scan. Wolfe and Stanton (1992) present scanning principles and provide a synthesized strategy for the establishment of an environmental scanning process. Any effort at visioning of future events is always at risk for errors, since the facts and actual events of the future are not truly known until the event actually
occurs. Environmental scanning taken in isolation would be an incomplete approach for identifying learning gaps. Scanning as a needs assessment technique has its greatest value in CPE when seen as a process supportive of other needs assessment techniques (Hatch and Pearson, 1998).

2.5.4 Needs Assessments for Physical Therapists

The profession of physical therapy is becoming increasingly aware of the value of CPE needs assessments in helping to adapt to the radical health care changes. Carpenter (1996) reviews the evolving culture of physical therapy and notes the shift in emphasis from the ‘hands-on’ role to ‘non-hands-on’ educator, facilitator and resource roles. She notes that future CPE activities need to help professional practice generate a different vision of physical therapy. Lopopolo’s (1997) study recommends that physical therapists need to view change as a potential opportunity and important to the survival and growth of the profession. Schleifer-Taylor’s research into physical therapist role transformations highlight that the profession’s role is changing. Her review suggests that physical therapists need to embrace change, learn effective marketing and professional image building and create new educational strategies. Carpenter, and other physical therapy leaders, are sending strong messages to the profession. These experts clearly outline that the evolution of a new physical therapy culture is essential and must be the result of a conscious purposeful development, rather than a series of reactions to external forces (1996). Needs assessments and new education strategies will play an integral role in the changing role of physical therapists.

Environmental scanning as a needs assessment tool has only rarely been reported in the physical therapy CPE literature. Continuing educational needs assessments in the profession have tended to focus on CPE delivery preferences. Tassone and Heck (1997) reviewed motivational orientations of health care professionals participating in CPE. Karp (1992) looked at delivery systems, locations of programs and barriers to attendance at physical therapy CPE activities. Tassone and Speechley’s 1997 study investigated geographical factors influencing participation in physical therapy CPE and preferences
for CPE program design. Queen’s University’s School of Rehabilitation Therapy recently conducted a professional development survey of 2000 therapists in Canada investigating distance education, interest in a clinical Master’s program and CPE delivery preferences (1998). Schafer in 1991 studied the extent to which private practice physical therapy firms utilized environmental scanning as one aspect of their strategic planning processes for making business decisions. Schafer concluded that in the profession of physical therapy, therapists need to understand the ‘business’ of providing a health service if they expect their practice to survive in the competitive health care industry. Based on an extensive review of the literature, there is little evidence that environmental scanning, as a needs assessment methodology, has been used for physical therapy CPE.

The University of Toronto’s Department of Physical Therapy (PT) very recently completed a discussion paper on the strategic directions of the Department for the next five years (1999). This planning paper includes visionary goals, implementation plans and strategic initiatives. The Department’s five year timeframe is consistent with Stoffels’ recommendations that “many firms limit strategic plans to a three–five year horizon” (1994, p. 68). One of the core focuses of the Department is the “development of the professional physical therapy environment through dissemination of research based information and the provision of opportunities for ongoing academic learning” (U of T Department of PT, 1999, p. 3). The Chair highlighted, in her January 1999 report to the External Review Team, that one of the achievements of the Department was the maintenance of a comprehensive continuing education program. The Continuing Education Committee of the Department of Physical Therapy presently recommends that a needs assessment and environmental scan be conducted in the physical therapy community. The CE Committee has not conducted a formal needs assessment for more than five years. CPE literature reviews, the rapid health care systems changes and concern for addressing the learning needs of the profession have overwhelmingly influenced this decision. For the Department of Physical Therapy’s CE Committee to provide the most effective and needed CPE activities, a formal environmental scan and needs assessment must be conducted.
2.6 Needs Assessment and Environmental Scanning Methodologies

The CPE literature identifies multiple methods of conducting needs assessment and environmental scanning. Although there is no one methodology recommended, several guidelines, frameworks and templates are given for situationally specific environmental assessments. Interpretation of documents and materials is probably the most frequently cited means of scanning the environment for needs assessment purposes (Hatch and Pearson, 1998). CPE providers and organizations can utilize reporting documentation for clues to potential learning needs among their members. The authors give a useful overview of both ‘internally’ generated documents from within the organization and ‘externally’ derived materials from outside sources. Morrison (1992) recommends examining past program reviews, the last institutional self-study, and the most current master plan. Stoffels, in his comprehensive guide to environmental scanning, suggests an effective technique is to “analyze the content of the literature and media for signals about emerging issues” (1994, p. 122). A review, interpretation and analysis of documents can provide important information about future learning needs.

Another environmental scanning method frequently cited is interviewing. Many researchers and policy makers advocate recruiting opinion leaders to evaluate new information and assess the value of new medical practices (Soumerai et al., 1998). Morrison suggests interviewing major decision-makers regarding their view of the most critical trends and developments (1992). He recommends that environmental scanners use the interviews to identify critical trends and potential developments. Furthermore, persons who are interviewed will help planners identify unique perceptions of future directions that will aid in planning (Hatch and Pearson, 1998). Stoffels agrees “capitalize on visionaries – look for forecasts of visionaries and experts” (1994, p. 117). Experts or authorities can provide valuable recommendations in regards to current and potential learning needs in the changing environment.
Focus groups have long been accepted as an effective needs assessment method in determining learning needs (Tipping, 1998). Participants are encouraged to explore their experiences and share their knowledge about current perceived learning needs (Kitzinger, 1995). Hatch and Pearson suggest that personal experience is a common source of very useful information for environmental scanning (1998). The authors state that this is a subjective perspective, but emphasize that personal experience should not be underrated for purposes of needs assessments. Gelula and Sandlow (1998) selected focus groups as the primary needs assessment device in their study investigating the specialty needs of primary care physicians. Mann and Chaytor utilized a focus group methodology in their large study in which they assessed physician learning needs (1992). Focus groups can identify trends, issues and perceived needs of learners for the future.

2.7 Gap Analysis

Needs assessments provide the identification of current issues, skills and topics that need to be addressed. Environmental scans uncover emerging issues and trends that will shape the future learning needs. The results of a needs assessment of the current perceived needs of practicing professionals can be contrasted with an environmental scan assessment of the future projected needs and direction of a profession. This comparison, called a gap analysis, can provide valuable insight and information for continuing professional education planners. Gap analysis or the discrepancy model (Moore, 1998 and Fox, 1983) has been used to identify educational needs in CPE as a discrepancy or gap between ‘what is’ and ‘what should be’. Data are collected from both sides of the ‘gap’, that is, data should be collected about ‘what is’ as well as about ‘what should be’ (Moore, 1998). Judgements about the difference between these two sides of the gap can then be made (Moore and Cordes, 1992).

Green et. al. used a gap analysis as part of an environmental scan in their Alliance for CME model for strategic, innovative leadership (1998). The model suggests that leaders can create success through environmental scans that recognize opportunities, identify
threats, monitor trends and identify gaps. The Open University in British Columbia used a gap analysis during the planning stages of developing the physical therapy degree completion program (Carpenter, 1996). Skills such as marketing and business administration knowledge were identified as gaps in the education of physical therapists and were directly addressed in the new course content. This shows how a strategic educational plan can be formulated from identifying learning gaps. The methods for analyzing the gap range from the statistics-based quantitative methods to more ethnographic qualitative methods. Gap analysis between current perceived learning needs and future projected learning needs can yield information that is of great value to CPE providers.

2.8 Summary

This literature review has outlined the current health care system changes and introduced the subsequent changes to the roles of health care professionals. It described how these changes have a direct impact on the education of health care professionals. It then reviewed continuing professional education and physical therapy CPE and highlighted what the professional bodies are doing to address health care changes through CPE.

Needs assessments and environmental scans as methodologies for identifying educational learning needs, were reviewed, followed by a summary of the relevant literature on the use of needs assessments in CPE and specifically in the profession of physical therapy. Finally, the chapter outlined the use of gap analysis to contrast the difference between current perceived needs and future projected needs in the field of CPE.

It is clear, in examining the literature, that the health care system is changing rapidly. CPE will play a large role in attempting to ensure that health care practitioners can adapt to and grow with these changes. As a profession, physical therapy is also struggling to keep its practitioners up-to-date with the future needed skills and behaviours. Needs
used to formulate a strategic educational plan.

With the current perceived needs of practicing professionals, this gap analysis can be
assisted, CPE providers in determining learning needs. The results of an environmental scan
literature, document analysis, focus groups, and interviews are all techniques that
identify trends, issues, and new directions for the future. Environmental scanning, as a
needs. Many of the healthcare professions are currently using environmental scans to
assessments and environmental scans are effective methodologies to identify learning
Chapter 3: Methodology

3.1 Introduction to the Research Methodology

As described in the first two chapters of this thesis, much has been written about continuing professional education, needs assessment and environmental scanning. With the rapid changes in the health care system, CPE is critical for practitioners to maintain and update their knowledge, skills and behaviours. However, based on an extensive review of the literature, there is little evidence that environmental scanning, as a needs assessment methodology, has been used for physical therapy CPE.

For this study, I explored the current and future needs of practicing physical therapists in the public sector from a very specific perspective: from a continuing education initiative. To that end, I collected my data from a variety of sources and by using a variety of techniques. Using triangulation, I gained a more complete picture of the emergent themes and forces for change in the profession. I identified learning needs that physical therapists require for the future by conducting both an environmental scan and a needs assessment. Furthermore, the gap analysis highlighted the ‘gaps’ in learning needs, and from this a strategic educational plan might then be formulated and used for future CPE activities.

My research is unique in its use of an environmental scan, as a needs assessment methodology, for physical therapy CPE. I have utilized environmental scanning techniques to identify both the perceived and the unperceived learning needs of practicing physical therapists. The gap analysis identifies the differences between what the experts, forecasting future needs, and the clinicians, describing their day-to-day experiences, think the future of the physical therapy profession will bring. These research findings may also provide practical information that may assist CPE planners and specifically The University of Toronto Department of Physical Therapy Continuing Education Committee to offer the most needed CPE interventions. Physical therapists may benefit from this
study by identifying and learning the new skills and behaviours that will be required in the public health care system, and researchers will learn more about the use of environmental scanning in the planning of CPE interventions.

The next sections outline the research approach which was used in this study, provide a rationale for its appropriateness in exploring the research question, and offer a summary of the views of the researcher which formed the basis for methodological decisions.

3.1.1 Overview of the Approach

Physical therapists' future needed skills and behaviours that can be met through educational interventions were identified using three methods:

A) Environmental scan using artifacts.

A literature review and review of documents (College of Physiotherapists of Ontario, Ontario Physiotherapy Association, University of Toronto) was conducted prior to any other data collection approaches. This allowed me to better understand the internal and external surroundings.

B) Environmental scan using interviews with experts in the field of physical therapy.

Using network sampling (Polit and Hungler, 1991), seven experts were identified by professional/regulatory associations and The Physical Therapy Continuing Education Committee. These experts were opinion leaders who have the interest and knowledge to offer insight and their unique perspective into the future direction of physical therapy. The interviews consisted of semi-structured, open-ended questions designed to solicit information and perceptions about the future needs of physical therapists.

C) Needs assessment using focus groups of practicing public sector and community physical therapists.

Using convenience sampling (Currier, 1984), two focus groups moderated by a trained external interviewer discussed the current trends and issues in the profession of
physiotherapy. Participants further attempted to identify the perceived needs of physical therapists for the future.

Data from all three data sources were then analyzed and a qualitative gap analysis was conducted. Gaps between current perceived needs and future projected needs of practicing physical therapists were identified and suggestions for a strategic educational plan were formulated.

3.1.2 Rationale for the Use of a Qualitative Approach

If you want to know how people understand their world and their life, why not talk with them. (Kvale, 1996, p. 1)

I’m interested in finding out how you talk about things, how you see things, I want to understand things from your point of view. (Spradley, 1979, p. 81)

Given that the thoughts and perceptions of physical therapy experts and practitioners were at the heart of this research topic, a qualitative methodology was chosen. Qualitative research involves the systematic collection and analysis of words, images or artifacts to build an intricate, holistic understanding of an individual’s life, the lived experience of a phenomenon, human behaviour, social interaction or a cultural group. Such understanding supports the development of practices, programs and policies that meet the needs of people.

The reasons for using a qualitative methodology for this study were that the skills and behaviours that physical therapists need in the future of the public sector are poorly understood. The relevant variables have yet to be fully identified. A qualitative research approach would therefore be useful to further identify or define the themes and trends for the future of the profession of physical therapy. Furthermore, using a qualitative methodology of environmental scanning allows the researcher to address some of the unperceived needs of the learners. Continuing professional education providers will
benefit with the identification of the future needs of practitioners, and strategic program planning can be enhanced.

There are many qualitative research approaches and these traditions can be integrated within a single study. The research orientation that I have chosen is primarily using a phenomenological approach with analysis using grounded theory methodology. I adapted these approaches, since the literature presented some themes relevant to the field of physical therapy that were useful in identifying the preliminary codes only. The constant comparative method developed by Glaser and Strauss (1967) proved useful in formulating theories. It was my intention to attempt to understand the experience from the participant’s point of view, not to prove or disprove an already existing hypothesis. A qualitative methodology, utilizing a combination of several modes of inquiry, therefore seemed the most appropriate approach to employ.

3.2 Research Design

3.2.1 Purpose
To conduct an environmental scan and needs assessment of postgraduate physical therapists in order to perform a gap analysis between the current and future needs of the physical therapy profession.

3.2.2 Ethical Review
An ethical review was conducted according to the procedures and requirements of the Department of Adult Education, Community Development & Counselling Psychology at The Ontario Institute for Studies in Education of the University of Toronto.
3.2.3 Participant Selection

*Interviews with experts in the field of physical therapy*

The experts were identified using network sampling (Polit and Hungler, 1991) by The University of Toronto Department of Physical Therapy Continuing Education Committee and professional/regulatory associations. The Continuing Education Committee currently consists of four full-time academic faculty, six clinical faculty and four clinicians with experience in a wide variety of physical therapy fields. The members of the committee and associations selected physical therapy experts or key informants who could provide a representative description based both on their experiences and field of practice within the profession of physical therapy. They were seen as opinion leaders with the interest and knowledge to offer insight and their unique perspective into the future direction of the profession.

The following is a tier/cascade of the physical therapy experts interviewed: 2 leaders in the public sector, 1 leader in community physical therapy provision, 1 academic sector leader, 1 College of Physiotherapists of Ontario leader, 1 Ontario Physiotherapy Association leader, 1 pilot interview of an academic sector leader, for a total of 7 interviews.

*Focus groups of practicing public sector and community physical therapists*

Two focus groups discussed the current trends and issues in the profession of physiotherapy and attempted to identify the perceived needs of physical therapists for the future.

The first focus group participants were selected from a convenience sample of previous participants of the University of Toronto Department of Physical Therapy’s Continuing Education programs. Since part of the research question was to identify the CPE needs of practicing physical therapists, it was felt that the focus groups should be comprised of clinicians who had previously accessed the CE Committee’s courses. The University of
Toronto Continuing Education Department was contacted for a list of all the attendees of a post-graduate course that I co-organized less than one year ago. Within the convenience sample, focus group participant demographics attempted to replicate the results of the simple random sampling used by Tassone and Speechley in 1997. In this study investigating factors influencing physical therapists' participation in CPE, simple random sampling was used to sample 470 therapists in Southern Ontario. The authors reported an overall response rate of 82%. The majority of the respondents were female (87%), and nearly two thirds of the respondents were under the age of 40 years. About two thirds of the respondents had received their professional education through a degree program and were working in full-time positions, most often providing direct patient care. Over half of the respondents had been in practice for more than 10 years.

In this research project, focus group participants were therefore selected to attempt to replicate Tassone and Speechley's simple random sampling demographics as closely as possible. Their study provides an excellent representation of practicing clinicians, since all licensed physical therapists in Ontario were their target population. The majority of participants, in this research project, were female (83%), and one-half were under the age of 40 years. Two-thirds of the participants received their professional education through a degree program and one-half of the participants were working full-time. All the focus group participants were providing direct patient care. Two-thirds of the participants had been in practice for more than 10 years while the remaining one-third had been in practice for 0-10 years. Furthermore, 50% of the participants worked in the Toronto community (for home care or Community Care Access Centres) and 50% worked in hospitals in Toronto. The focus group participants therefore very closely matched Tassone and Speechley’s simple random sampling demographics and represented both the hospital and the community sectors of the physical therapy profession.

The participants of the second focus group were selected from a convenience sample of practicing physical therapists at the Toronto Rehabilitation Institute. These clinicians provide an accurate representation of public sector physical therapists and since I was
awarded a scholarship from the Institute, I wanted to include participants from this organization in my research. Once again, I attempted to select participants who have taken CPE courses from University of Toronto and who replicated Tassone and Speechley's simple random sampling demographics. The majority of the participants were female (86%), and over two-thirds were under the age of 40 years. Over two-thirds of the participants received their professional education through a degree program and were working full-time. All the focus group participants were providing direct patient care. 57% of the participants had been in practice for more than 10 years while 43% had been in practice for 0-10 years. Furthermore, 86% of the respondents have participated in Continuing Education courses at the University of Toronto.

3.2.4 Data Collection
In research, the term ‘triangulation’ refers to a technique whereby multiple sources are used to enlighten understanding (Lincoln and Guba, 1985). The four types of data used in this thesis were: 1) A literature review and review of relevant documents in the field of CPE and physical therapy, 2) Semi-structured interviews with physical therapy experts, 3) Focus groups of practicing therapists, and 4) The researcher's field notes. Data collection was therefore triangulated from more than one source and method to gain a substantive picture of the emergent themes and needs.

A literature review and document analysis were conducted prior to any other data collection approaches. This allowed the researcher to better understand the internal and external surroundings. The data were also used to frame the interview and focus group questions.

*Interviews*
The seven interviews were conducted in September and October 1999. An experienced interview coach worked with the researcher in the two months preceding the interviews. The coach facilitated the researcher on interview techniques and referred the researcher to relevant literature on effective interviewing. Structured feedback was given on both
verbal and non-verbal communication skills. To verify their clarity, applicability, and comprehensibility for this study, the primary questions used for the interviews were reviewed and modified beforehand by the interview coach and by three physical therapy experts. A pilot interview with an academic physical therapist leader was conducted prior to the other interviews and was videotaped by the researcher. The videotape was reviewed, and the coach gave focused feedback on the interview process and techniques. The interview guide was again modified using the results and responses from the pilot interview.

The researcher called each of the remaining six experts and briefly introduced herself, informed them of the research topic and why they had been chosen to be interviewed. All six experts agreed to be interviewed. A mutually determined date, time and location for the interview was arranged. Subsequently, a letter of introduction, the research abstract and the interview questions were either mailed via the post or emailed to the participant or presented to the participant at the interview, depending on the length of time between the initial phone contact and the date of the interview (Appendices B and E). Five of the interviews were conducted face-to-face and one interview was conducted on the phone due to the interviewee’s out-of-town location and availability. Five of the interviews were conducted at the interviewee’s place of work and one of the interviews was conducted at the researcher’s place of work.

Before the interviews began, the interviewees were invited to ask questions about the purpose of the interview and they were asked if the researcher could take notes during the interview. The interviewees were asked if the interview could be audiotaped and informed consent was secured (Appendix C). The same interview schedule of open-ended semi-structured questions was used for each interview (Appendix E). The interview questions were designed to address the research questions of the thesis and to create room for the interviewees to move beyond them when desired. The open-ended questions permitted each participant to deeply explore the topics that they considered most important and relevant, and minimized the influence of the researcher. At all times
the researcher tried not to use questions or statements that would influence the nature of the interviewee’s responses. The interviewer attempted to ask questions and respond to the interviewee in such a way that the interviewee was inspired to describe his or her perceptions of the future directions of the profession of physical therapy. Specifically, the six primary questions were asked of each of the interviewees. Other probe questions were only asked if the interviewee required a more direct kind of facilitation to encourage a response. Additionally, questions of elaboration such as “Tell me more”, “Can you explain what you meant by that?”, and “Help me to understand what you’ve just said” were used. These prompts were used to inspire the interviewees to elaborate on what had been previously stated and to ensure that the interviewer correctly understood the nature and intent of the comments. The interviews were audiotaped to assist the researcher with the analysis of the data. The length of time (60 – 120 minutes) of each interview was recorded. On the day of each interview, further observations and non-verbal communication were recorded and field notes were reviewed.

Focus Groups
The two focus groups were held in November 1999. An experienced focus group moderator facilitated both of the focus group sessions. The researcher was present at both of the focus groups but did not participate in the discussion except to ask any further questions at the conclusion of the sessions. The researcher remained on the periphery of the room at a separate table and recorded notes during the focus groups. The moderator and the researcher together formulated the initial focus group guide (Appendix F). Small modifications were made to the focus group guide following the first session and this modified guide was used for the second focus group (Appendix G). The moderator and the researcher met both before and after each of the focus groups to plan for and to debrief the sessions. Modifications and adaptations to the groups were made accordingly.

The researcher called and/or emailed each of the potential focus group participants to introduce herself, inform them of the research topic and why they were being asked to participate, and to determine the date, time and location of the focus group.
Subsequently, a letter of introduction and the research abstract were either emailed or faxed to the participant or presented to the participant at the focus group, depending on the length of time between the initial contact and the date of the focus group (Appendix B). One of the focus groups was held in the Department of Physical Therapy at the University of Toronto and the other group was held on site at the Toronto Rehabilitation Institute.

Before the focus groups began, the participants were invited to ask questions about the purpose of the group and they were asked if the moderator and the researcher could take notes during the session. The participants were asked if the focus group could be audiotaped and informed consent was secured (Appendix D). The focus group guide of open-ended semi-structured questions was used for both of the groups with some small modifications between the first and the second group (Appendices F and G). The open-ended questions permitted each participant to discuss the topics that they considered most important and relevant. Also some of the results from the expert interviews were introduced for feedback and comments from the practicing therapists. The moderator was very experienced in facilitating focus groups, and so only used prompting questions or comments to keep the focus group on topic or to clarify any ambiguous comments. Although the moderator has experience in medical education, she is not a physical therapist or a practicing clinician and therefore served as an impartial and unbiased facilitator. The focus groups were audiotaped to assist the researcher with recording and analyzing all of the data. Further observations and non-verbal communication were recorded and field notes were reviewed on the day of both sessions. Each of the focus groups was one-and-a-half hours in length, followed by a light lunch.

The limited scope of a Master’s thesis and the number of interviews and focus groups required to reach saturation with this subject and sample population jointly determined the number of interviews and focus groups that were conducted. It was anticipated that a maximum of eight interviews and three focus groups would be required, where in fact a substantial degree of repetition in the data was achieved at the conclusion of the seventh
interview and the second focus group. The interview coach and the focus group moderator confirmed the repetition of data and agreed that a reasonable level of saturation had occurred at that point. No further data were collected.

3.3 Data Analysis

Analysis of any kind involves a way of thinking. It refers to the systematic examination of something to determine its parts, the relationship among parts and their relationship to the whole. Analysis is a search for patterns. (Spradley, 1979, p. 85)

3.3.1 Coding, Analysis and Interpretation Approaches

The available methods for analyzing qualitative data are many and varied. The data for this study were primarily analyzed according to the methods outlined by Miles and Huberman (1984). A Template Analysis style was used for analysis of the interview and focus group data. As outlined in this section, preliminary codebooks were developed prior to data analysis (Crabtree and Miller, 1992). The constant comparative method presented by Glaser and Strauss in 1967 was used to help the researcher understand how and why data are compared. Using the Hurricane Thinking approach as outlined by Kirby and McKenna (1989), patterns of relationships among the data and the categories began to emerge.

Each of the interviews and focus groups were recorded on audiotape (pilot interview was recorded on videotape). An experienced medical transcriptionist transcribed all the audiotapes (approximately 11 hours of tapes) verbatim onto a computerized database using Microsoft Notepad. Inexplicably, the sound quality of one of the interviews and the pilot interview were very poor and so transcription proved impossible. Throughout each session, careful notes were taken to serve as a method of clarifying data observed on the tape recordings. Data from these two interviews were therefore analyzed on the basis of these notes. Each interviewee and focus group session were identified on the transcript by a number that corresponded to the sequence in which they were interviewed.
Text was coded manually by writing in the three-inch, right hand margin of the transcripts.

To limit researcher bias and ensure that the data were credible and dependable, a second qualitative researcher (the research assistant), was involved at this stage of the project. This research assistant was experienced in both qualitative data coding and analysis. Using the Template Analysis style, the researcher and the research assistant developed a set of preliminary codes that were used to categorize the themes of the needed skills and behaviours of physical therapists. The initial set of codes was developed based on a theoretical understanding of the possible responses of the participants. This understanding was derived from the literature and the documents from the environmental scan in the first phase of data collection. The interview and focus group questions also were used to assist with the formation of these preliminary codes.

Using a small sample of two interviews, the researcher and the research assistant independently coded the transcripts. Further codes, categories and their subcategories that emerged from the data were established with subsequent readings of the transcripts. Codes were then compared and discussed until there was satisfactory agreement regarding the coding system. The researcher and research assistant aimed for an inter-rater reliability above .8. This was measured by recording the percentage of times that the two researchers agreed on the coding. A codebook was recorded and modified accordingly with definitions of the terms and categories being used (see Chapter 1). Using this coding system, the remainder of the interview and focus group transcripts was then coded by the researcher. The research assistant reviewed all the transcripts and the coding and ensured that the coding was correct and that the categories were complete. Consensus was again reached between the researcher and the research assistant in both the coding scheme and the categories used.

The transcripts were then sorted and collated based on the categories that were identified, using a ‘cut and paste’ method on the computer. By presenting the data in aggregate
form the researcher was better able to understand the nature of each category. Each set of coded material was then read repeatedly, looking for themes and relationships among concepts. The identity of each interviewee and focus group participant was preserved by assigning two numbers that appeared at the bottom right corner of each piece of data. The first number corresponded to the sequence in which they were interviewed. The second number indicated the page number of the transcript for that specific piece of data. This way a piece of data could always be re-integrated into the interview transcript to confirm the context of a statement. Once themes began to emerge, the material was checked for contradictory statements and alternative explanations to ensure that the analysis was well grounded in the text. Any perceived discrepancies among the interviews, the focus groups and the document collection were addressed with the participants through a follow-up telephone call and a member check was utilized (Lincoln and Guba, 1985).

Data were further analyzed to identify gaps between the focus group outcomes from the practicing physical therapists and the interview content from the physical therapy experts. In this manner a gap analysis was therefore conducted between the current perceived learning needs of practicing physical therapists and the future projected needs and direction of the profession. The available methods for analyzing an educational ‘gap’ range from the statistics-based quantitative methods to more ethnographic qualitative methods. The methodology chosen for this study utilized a qualitative gap analysis and followed the methods outlined by Moore (1998). The researcher did not impose her ideas on the data, but instead read and reviewed the transcripts and categories until an understanding of the gaps between the current and future needs of physical therapists emerged from the data. A strategic educational plan was then formulated from the identified gaps. The plan outlines the future projected behaviours and skills that physical therapists will require to survive and excel in the future. This gap analysis specifically focuses on the needed skills and behaviours that can be addressed through CPE interventions.
3.4 Researcher Biases

The research associated with this study was qualitative in nature and therefore the act of interpretation is guided by the values of the interpreter. As a prerequisite for enhancing the validity of the research, naturalistic researchers are obliged to articulate the assumptions that guide their interpretations. Becker (1986), noted that when a researcher is able to identify preconceptions and pre-understandings, he or she is less likely to impose beliefs on the participants, and therefore, more able to report unbiased results. The following biases and assumptions emerge from my personal experiences as a physical therapist and continuing professional educator:

- Health care and continuing professional education are experiencing tremendous pressures and changes under the current economic, social and political environments in Ontario.

- The role of physical therapists in the public sector is rapidly changing. Physical therapists are being asked to take on new responsibilities that move beyond the direct patient care role.

- Current undergraduate physical therapy programs may not be preparing physical therapists for these new roles and tasks. Practicing physical therapists are struggling to keep up-to-date with the changes and are challenged to find continuing education interventions that will assist them with learning the newly required skills and behaviours.

- As a profession, physical therapy needs to re-evaluate and plan for the changes and challenges to its role in the health care field. Continuing education providers including Universities, regulatory boards and professional associations will need to strategically plan so that physical therapists are prepared and ready for the future.

- The practicing clinicians that participated in this research study may not be an accurate representation of the physical therapy community. Since the majority of the
physical therapists work directly in the downtown area of Toronto, their experiences and knowledge may not be generally transferable to the rest of the profession.

3.5 Minimizing Distortion/ Limitations to the Study

This project is a piece of qualitative research based on the responses from seven interviewees and 13 focus group participants. Some would argue that the primary limitation attributed to qualitative research has to do with the quantitative concept of reliability. That is, to what extent would the researcher obtain the same results if they measured the responses at a different time. Validity, another quantitative term, refers to whether a study investigates what is intended to be investigated. Again, in quantitative terms, establishing validity would require isolating a dependent variable and arranging experimental conditions that control all other factors so that a causal relationship can be determined. This relationship would then be used to either confirm or refute the hypothesis of the study. As has been previously outlined, it is the not the researcher’s intent to prove a hypothesis or to propose broadly generalizable conclusions, but instead to present themes and forces for change that may have an impact upon the profession of physical therapy.

Potential distortions and issues of objectivity, validity and reliability are inherent in qualitative research. The following are several ways that the researcher has attempted to minimize the limitations and distortions:

- The researcher made explicit her background and research project purpose to the interviewees and the focus group participants prior to data collection. Researcher biases are also clearly outlined previously in this chapter and the researcher acknowledges that this will have an impact on the analysis of the data, the interpretations and the conclusions.
• The expert interview participant selection resulted from input from several professional/regulatory associations and the Physical Therapy Continuing Education Committee members.

• The focus group participant demographics replicated as closely as possible the results of the simple random sampling method used in previously published research.

• Limitations to this study include the small sample size and the convenience and network sampling methods of subject recruitment. Attempts have been made to minimize these limitations. While the sample size is admittedly small, the goal is primarily to have some representation from each of the chosen domains. This will provide each domain’s perspective and will demonstrate the broad themes and trends. Future studies may be able to pursue each particular domain’s needs in more detail.

• Physical therapy consumers and representatives from the private sector (see Section 1.6 for definition) were intentionally excluded from this study. These sectors create further domains that are too large in scope for this project. Promising results with this study may provide the impetus to expand the study fields at a later date.

• The researcher was coached by an expert on interviewing techniques. A pilot interview was conducted and reviewed by the interview coach and the researcher prior to the remaining six interviews.

• An experienced focus group moderator facilitated both of the focus groups, thereby ensuring that the researcher did not alter the participants’ responses.

• The researcher, interview coach and the focus group moderator all confirmed the repetition of interview and focus group data and agreed that a reasonable level of saturation had occurred.

• Reliability was enhanced by the use of one interviewer and the use of a reviewed interview guide.
To further limit researcher bias and ensure that the data were credible and dependable, a second qualitative researcher (who was experienced in data coding and analysis) was used to achieve consensus with the researcher in the coding scheme and categories used. Furthermore, all the interview transcriptions were either independently coded or reviewed by the research assistant. All codes and categories were jointly agreed upon by both the researchers with an inter-rater reliability of .8.

- Once themes began to emerge, the material was checked for contradictory statements and alternative explanations, to ensure that the analysis was well grounded in the text.

- Validation strategies were included in the research design. Data from all three collection sources were triangulated in the search for underlying themes and a member check was used.

The foregoing chapter has presented a detailed examination of the research methodology, including an overview of the approach used, a description of the research design, and an explanation of the methods used for data collection and analysis.
Chapter 4: Summary of Findings

4.1 Introduction

The following chapter includes the presentation and summary of the interview and focus group data collected. The chapter is divided into six sections, each of which represents one theme or category that was examined in this study. The research questions posed in both the interviews and focus groups correspond to these themes and are included in each of the chapter's sections. The actual findings related to that category are presented under each of these headings and participant quotes are provided. The categories and themes that emerged are also presented in summarized form in the figures with each of the questions. Please refer to Appendices E, F and G for copies of the Interview and Focus Group Guides. Also please refer to Section 1.6 for Terms and Definitions used.

4.2 Challenges

The research participants were invited to provide their thoughts about the challenges faced by the profession of physical therapy in the public sector. This was the first question posed, and it helped the respondents to start thinking about the future needs of clinicians. Interviewees were asked:

*Interview Question - In your opinion, what do you see as physical therapists' biggest challenge(s) in the next 5 years?*

*Focus Group Question - What do you see as physical therapists' biggest challenge(s) currently in the public sector?*

This question resulted in the participants giving long and very thoughtful responses. Most of the participants appeared to have given this question a lot of previous thought and supplied me with examples and cases to support the points that they were making.
Overall the data fell into nine main categories that I used for the purposes of data analysis. Participants considered the first three categories the most important and these were mentioned the most often. Figure 1 provides a diagrammatic representation of the categories and themes.

Figure 1: Challenges

4.2.1 Role Redesign
All of the interviewees and both focus groups cited this as one of the biggest challenges facing the profession of physical therapy. Within the public sector, physical therapists are being asked to take on new roles. Their domains of practice are rapidly changing from the traditional patient care with little research and evaluation to a new mix with increasing emphasis on research and other non-patient care related activities. Interviewees expressed their concerns about the abilities of physical therapists to take on these new roles. Typical comments by the experts included:

Maybe one of their biggest challenges will be, in the public sector, .... to keep up with the academic part... Because even though we might feel prepared to embark on clinical research or to embark on academia, compared to a lot of other professionals in the field, there's a big gap between our level of expertise and maybe a physician's level of expertise who spent fifteen years learning their skills and doing fellowships and research, and just that in order to conduct their clinical practice. (3-2)

Foremost among the challenges facing the profession, is to provide evidence through research and outcome data that supports physical therapy practices. With shrinking health care dollars and new demands from the public, physical therapists will need to be able to prove that what they do is effective and efficient.

The biggest challenge facing the profession is having the evidence to support what we do. (1-1)
In addition to moving more towards research, several of the interviewees noted that physical therapists will be taking on more of a consultant role. The participants say that this will require a role redesign, as therapists will be functioning in new ways.

I guess the second challenge that I see is that we're definitely moving to a Master's level program, we may even be moving to a doctorate level program in the very, very near future, and that definitely moves us into the role of consultant. (2-4)

Most of the participants commented, not only on the challenges of new roles and role redesign, but also on the challenges of balancing all these new responsibilities. Therapists will need to continue with their commitment to excellence in patient care and yet also learn to adapt and grow into these new roles.

I think one of the biggest challenges is to be able to meet our multiple roles that we are going to have to fulfill in the next few years, because the reality is the health care environment has changed, and it's no longer enough for physiotherapists just to excel at providing patient care. (4-3)

The loss of job promotion or career laddering was also cited by many of the interviewees. The implementation of program management in public institutions has resulted in a lack of possible promotions for staff. This creates challenges for therapists when everything is seen as a lateral move and there is no perceived advancement.

4.2.2 Professional Identity
Throughout my interviews and focus groups, it became very clear that physical therapists are seen as lacking a true professional identity. The prevalent feeling is that the profession needs to come together as a community and set goals and strategic plans for the future. Participants discussed many threats to the survival of physical therapists in the public sector. All of the interviewees and both focus groups noted that physical therapists need a clear and consistent vision of the direction in which the profession wishes to go. This would then allow each member to be involved in his or her organization and be able to advocate or market on behalf of the profession.

And there are many things we do that many other health care professionals do, and arguably we may do it the best, but I don't think there's any evidence that we do it the best. I do think that a key challenge for physiotherapists in the future is
going to be the ability to identify what unique skill sets they do bring to things, and to make some choices as a profession as a whole as to what they're going to let go of, and what they're going to choose to target. (2-4)

The issue of lack of intra-professional support was addressed by several of the respondents. It was felt that physical therapists do not support and assist each other in their practice, research and academic endeavors. This was seen as a detriment to the profession, as it can cause competition and resentment between individuals. Intra-professional support was seen as critical to the future strength of physical therapists. Interviewees cited a number of both internal and external factors that will be affected by the professional identity of physical therapists.

Collectively I see their biggest challenge is for them to interact appropriately internally with each other to enhance their skills behaviour and what they offer as a practice in their service delivery, and learn from that; and their ability to interact with the external community, whether it be other health professionals, the public or whoever, to ensure that they optimize what physical therapy has to offer society in general. (5-4)

The profession (needs to) learn how to brag about the outcomes and the achievement of goals in every way, shape and form. But I guess in the end that probably the biggest challenge is marketing. (7-6)

Participants stated that a further challenge facing the profession is the self-image of physical therapists. Many were concerned that clinicians do not highly value the profession. The challenge as they saw it, was that physical therapists need to conduct some intense self-reflection. They need to identify how they are going to meet these changes and new roles. They need to determine how to use the available and future resources to address the challenges. The profession as a whole must examine itself and the future directions that its members wish to pursue.

(The challenge is) their attitudes towards the profession, I think some physical therapists see themselves as technicians rather that professionals. We don’t seem to be as proud of what we do as other professions are. (1-2)

Focus group participants particularly expressed their concerns that the profession needs to work together, collectively, to form this strong new professional identity. They
cautioned that both physical therapists and other health care professionals have a lack of understanding of what the profession does.

We certainly have been at fault over this over the years... physiotherapy isn't an understood profession. So I don't think we have as much credibility... in management's eyes or maybe other people's eyes, because nobody really understands what we do. We can't show anything. And now we're trying to get into outcome measures and show differences. But everyone seems to be using different tools and no one is pulling it all together, and we're all working independently of each other. (9-5)

4.2.3 Leadership

The third challenge that the majority of participants cited is the loss of profession-specific leadership. Program management has been adopted by a large number of institutions and hospitals in Ontario. This has resulted in a loss of the traditional structure of physical therapy department heads and managers. Instead, all health care clinicians on a service report to a program manager who may or may not be of the same professional background and training. The result is that physical therapists may no longer have a professional leader and therefore a direct management voice in the organization. The loss of this profession-specific leadership is viewed clearly as a challenge, as the profession needs leaders to take up new roles in the public sector. Clinicians are now being asked to take on leadership roles that traditionally the director or manager would do. Interviewees stated:

So the challenge would be to develop physical therapy leaders that would be good advocates for ourselves and ... good leadership for where you want to go. (3-7)

Many of the interviewees emphasized that the challenge of leadership is further complicated by the fact that many clinicians do not have the skills needed to play a leadership role in their organization. Furthermore, many of the therapists do not want to be leaders, and are more content to have a director responsible for all the leadership activities.
One of the interviewees boldly stated:

I think what happened in most physical therapy departments is people didn't have to stand up for themselves. ... The profession used to have the assistant physical therapists and then there was the physical therapy director, and people didn't have to represent themselves. ... and they wouldn't have to look after themselves. I think in the end probably one of the best things from program management for physical therapists was that they've had to learn how to speak up for themselves. (7-3)

The issues of empowerment and advocacy were brought up by the large majority of the participants. Many expressed concerns that the structural changes with program management have resulted in a loss of power for the profession of physical therapy. Without a manager or director of physical therapy, there is a feeling that the profession has not only lost its voice but also its power. Some of the new roles, such as the professional practice leaders, are viewed as having no ultimate power to create change within the organization. Several of the interviewees mentioned that a challenge will be to ensure that physical therapists have a feeling that they can effect change and ultimately affect decisions of the organization. One of the focus group participants summarized by stating:

I think because of program management ... the challenge is for therapists to find new ways of being empowered. I think there's been a perceived experience that, with the transition from a department structure to program management, that there has been a sense of having lost power and being powerless. I think we need to identify new areas, new places that we can be empowered individually and as a profession. (8-2)

4.2.4 Change in Health Care Delivery/Economics

Six other challenges facing the profession of physical therapy were identified by many of the interviewees. Change in Health Care Delivery/Economics was cited particularly as being a current and future challenge due to the large impact these changes are having on the public sector. The experts expressed their thoughts that the cutbacks and decreases of funding to the hospitals have resulted in a reduction of physical therapy positions. Also, that the number of aides and physical therapy assistants has increased, with new challenges for clinicians to supervise and train the support personnel. Other delivery changes noted were the reduction in hospital lengths of stay, early discharge planning,
movement of health care delivery into the community and attempts by the government to reduce duplication of services. Clinicians are also very aware of the effect that changes in health care delivery and economics are having on the profession. When asked for challenges, one of the focus group participants immediately responded:

R: I can think of about four right off the bat. The first one is funding; you know, we continue to battle and fight with funding issues.

i: How does that play out?

R: Well I guess in several different ways; there are mergers going on, there's cutbacks in terms of personnel, money available for resources. With direct patient care, you're looking at waiting lists and you're looking at accessibility to service and what programs can be and can't be offered and covered by the public sector. (9-1)

4.2.5 Change in Organizational Structure

Closely connected to the challenges associated with modifications in health care delivery are the changes in organizational structures. Public sector organizational charts are rapidly changing, as institutions and hospitals have restructured and many have switched to program management. As outlined above in the leadership area, these changes have greatly affected the traditional physical therapy department structure. With no director or physical therapy manager, staff now report to program managers who are from a wide variety of educational and professional backgrounds. This organizational structure change provides many new challenges to the physical therapists who are now working in a new environment. One of the expert interviewees stated:

I think one of the other challenges in the public sector is related to the restructuring and reorganization. The fact that people are reporting to individuals other than from their own discipline group and having to explain what it is they do and how it works and the fact that it does work, for someone who really doesn't necessarily understand the profession in your language or in your jargon and perhaps even from a different framework. (6-3)

Organizational structure changes have further challenged clinicians who are now asked to take on new roles on hospital committees or with academic research/teaching. Many of the participants expressed concerns about the multiple responsibilities that they are being asked to perform in addition to their patient caseloads. Challenges of new roles, non-
patient care activities and time management related to structural changes to the organization were cited as interfering with direct patient care:

As therapists, our patients come first and all those other expectations and responsibilities, as much as we really want to be a part of them, they get done to a degree that we are not as happy with or with less time spent on it or on our own time or at home or wherever, and it's hard to be a part of that if we don't have the actual hours in the day to be a part of it. So it's balancing the case load and your responsibilities where some things haven't changed. (8-6)

4.2.6 Change in Resources
Specific challenges brought about by changes in resources were also mentioned by many of the interviewees. While this does relate to changes listed above, with changes to health care delivery/economics and organizational structure, respondents said that a further challenge is the direct loss of resources. Changes in money, personnel, time, equipment and technology were among the resources cited by participants as having a large impact on practicing clinicians. Interviewees explained that dollars directed to the continued education of physical therapists have been greatly reduced.

It's a big challenge of staying up-to-date ... and being given enough funding and time for courses. (9-7)

Equipment funding for patient needs as well as staff needs has also been decreased dramatically. Participants listed problems with getting walking aides for patients, especially when needed for weekends at home. This loss of equipment funding has resulted in challenges for physical therapists to ensure their patients' safety during their early discharge home from hospital. In addition, rapid changes with technology have further challenged clinicians. Computers, statistics software, email, Internet use and overall availability and access to these resources were listed by participants. Resources needed for physical therapists to conduct research on clinical problems are limited or costly and are proving to be prohibitive for many staff. Interviewees listed examples such as:

Public sector (physical therapists) tend to complain a lot more that there are just not good resources close by. If they have a library then they have to pay per article to go find out something they need to know about their own patient, or they have to pay every time they send out a fax. So it's this whole like constant
barrier, barrier, barrier.... Well, they need pagers, they need cell phones, they need e-mail... they just don't have those resources. (2-10)

Training and keeping up-to-date with new technology were also cited as changes that will continue to challenge physical therapists.

4.2.7 Partnerships
An interesting challenge that was mentioned by several of the interviewees was about physical therapists forming new partnerships. These partnerships included relationships within the physical therapy community and also among health care professionals. Clinicians need to be able to work together effectively and across multiple institutions and disciplines. Interviewees seemed to be very aware that physical therapists are being challenged to work with more diverse new health care personnel. Traditional health care teams are no longer composed of the same members. New disciplines are entering the hospitals and new specialists are involved in patient care. Typical comments by participants included:

There's all sorts of groups (that are challenging physical therapists): massage (therapists), acupuncturists, naturopaths, kinesiologists, athletic therapists, respiratory therapists, nursing. (9-2)

Several focused attention on the challenges of forming new alliances and new working relationships. Many of the experts noted that physical therapists will need to learn how to negotiate and partner with these other disciplines.

And again it comes down to why professions as a whole aren't ready to join together, because you do have a perceived loss of autonomy when you become a group of allied health professionals instead of each individual discipline. But you also really increase your power base and your ability to bargain. (2-7)

4.2.8 Self-Governance
Another challenge facing the profession of physical therapy is the need for self-governance. As previously mentioned, with the change to program management, physical therapists have lost their department heads and managers. Clinical staff
individually and collectively now must represent their profession and be involved in organizational decision-making. The experts stated that this is particularly a challenge for many clinicians who have not acted in these new roles before.

I think that physiotherapists in the public sector had worked in the system where there were managers, and of course in restructuring, the first thing that happened is the managers went. And then the staff was asked to try to come up with some solutions. People who had not had to share that role were being thrust into it....It's not that physiotherapists weren't trained for that role. I just don't think that they practiced it, particularly in the public sector....Restructuring has changed it to the point where you do have people self-managing to a much larger extent. (2-6)

Several of the interview and focus group participants acknowledged that the rising need for self-governance has created tensions and indeed large challenges for clinicians. One of the interviewees stated that her professional colleagues have shared their feelings with her:

We feel we don't have a voice in the organization. No one cares about our input. And we're frustrated. We hear about decisions after they're made. And they have a tremendous impact on the way we can practice and what we can do. What we're now reporting to is a clinical leader, not a program director, and wait a minute, we're lower on the hierarchy. Who's taking our concerns forward? (4-17)

4.2.9 System Knowledge

The final challenge that was expressed by the participants was that physical therapists will be challenged to increase their knowledge about the health care system. Therapists in general are considered to have a good background in working with patients and in the delivery of physical therapy services. Concerns were raised however, that many therapists do not know a lot about the bigger picture of health care delivery and where physical therapy fits into the system. Furthermore, clinicians may also lack knowledge about other health care approaches or what other health care personnel offer to patients. Experts, when talking about the average clinician, stated:

I was shocked at their (lack of) generic knowledge about their profession and the generic knowledge about the field outside the profession and the expertise there which would help them ...to do what they do more efficiently. (5-4)
Focus group participants also realized that physical therapists may be lacking in knowledge about organizations and how management functions within the health care systems. One of the respondents commented:

And like I feel sometimes I'm at the bottom of this ladder, and I don't understand all the politics and what's going on at the top. (9-15)

The challenge facing the profession was summarized by the following statement:

In the public sector, an understanding (is needed) of how the organization that you are working in, is run. What are the politics? How do they relate to the funding? Understanding how they fit into this bigger health care system in Canada. Often times we just focus on treating patients and doing a good job and thinking that we will be rewarded. But I don’t think that is the case anymore. I think that we need to understand the politics and the dynamics and the points where you can play a role and where you can make a difference... and have an influence on the public system. (6-3)

It is clear that the profession of physical therapy is facing numerous challenges in the future. Issues include: role redesign, professional identity, leadership, changes in health care delivery/ economics, organizational structure and resources. Partnerships, self-governance and system knowledge are further challenges for the future of physical therapists. Experts and practicing clinicians acknowledge that the traditional field of practice is rapidly changing and these changes are creating new opportunities and issues for the profession to address.

4.3 Role Changes

The participants in this research project claimed that the profession of physical therapy is facing large challenges in the future. The next question that was asked of them was about the direct effect the challenges may have on the ROLE of physical therapists in the public sector. Interviewees were asked:

*Interview Question - What changes (if any) do you see in the role of physical therapists in the public sector in the year 2005?*
Focus Group Question - What changes (if any) do you see in the role of physical therapists currently in the public sector?

4.3.1 Independent Practitioner

Data analysis clearly showed that the participants believe physical therapists in the public sector will have a new way of practicing in the future. Traditional roles will be changed to meet the changing health care system and the new demands of health care professionals. Foremost amongst those cited were roles related to physical therapists functioning as independent practitioners. All of the interviewees and focus group participants referred to the impact that this change will have on the role of clinicians.

Typical comments by the respondents included:

Because we have primary care direct access as a profession, as of 1991... I see that as being a real coup for the profession. We decide who we treat, we decide who we assess, we decide how we treat them, how long we're going to treat them, who we're going to link them with, and when we discharge them. (7-11)

Participants focused on the issue that physical therapists generally do not view themselves yet as independent practitioners within the public sector. Adjustments to the loss of department directors with the change to program management have been slow. Many physical therapists do not realize the impact that health care delivery and organizational changes have on their day-to-day practice. An excerpt from an interview with one of the experts included:

R: I see each of them (in the future) as independent practitioners inside their organization and they're not now. They were always protected under the Canada Hospitals Act in a hierarchical organizational structure which meant that the low man on the totem pole didn't have to take any responsibility for the whole...And I think it's the biggest challenge. Each one has to be an independent practitioner even inside the public sector.

I: And how do you specifically see that translate to a role change? What do you envision as an independent practitioner in the public sector?

R: Well, there might be a single therapist on a team on a program, and I see them being responsible for that whole component of physical therapy all the way from generating some new knowledge, to regulating the standard of practice that goes on in their team, maybe even (regulating) themselves. (5-9)
Several of the participants noted that independent practice, while daunting at first, is a direction that many physical therapists want. They highlighted the potential benefits to the profession and mentioned that this will strengthen their role within the public sector. Focus group participants were concerned that the lack of support within the workplace organization will further the difficulty with the change to independent practice. However, one of the experts summarized the feelings of many practicing physical therapists:

They want to be independent. You don't go to university for a minimum of seven years in order to be a doctor's lackey. But the role will... be an independent clinician. (7-11)

Much of the discussion during the interviews and focus groups centred on the difficulties with creating a new role for the profession. Respondents emphasized that the new physical therapy role must fit with the direction of the organization and yet grow and adapt to the environmental health care changes. In addition, the profession must choose whether to expand or limit its present roles within multiple areas of health care delivery. Participants seemed to see both sides of this debate. Typical comments included:

I also think probably the challenge in that is what to let go of and what to add on? (5-6)

So I think in some ways our role has expanded. And in other ways we're going to have to relinquish certain portions of our traditional clinical practice. So it will have to be redefined. (4-8)

I think that the role of physiotherapists will need to become more focussed, ...enhancement by subtraction. ....But I think inevitably we have to give away something. And there are lots of grey areas. (2-8)

It was clear to the participants that the profession faces multiple issues as it attempts to decide on the different roles that it will pursue in the immediate future.
The participants cited a number of role changes with nine roles mentioned the most often. All of the role changes are suggested as future directions and areas that physical therapists will need in the public sector. The interviewees and focus group participants were very consistent in their comments about this category. Two role changes were mentioned most often, and I will present these findings first, followed by the other role changes that were cited with less frequency. Please refer to Figure 2 for a diagrammatic representation of the categories and themes.

4.3.2 Consultant

Overwhelmingly, the data showed that the movement to an independent practitioner has led clinicians to increasingly be required to act as a consultant. In addition, with fewer numbers of therapist positions in the public sector, there is a further shift to a consultative model of care. Interviewees described this role as less direct patient care and more of the traditional physical therapy service delivered by an assistant or other health care worker. Experts stated:

We are going to, over the next five years, become more consultants than we are now, not completely hands-off but less hands-on. (1-4)

So when I say consultant I really mean a person who can quickly diagnose and set up a program that is effective and efficient, and then play a manager's role to make sure it's carried out. And that might involve far fewer physiotherapists and far more support personnel or other health care professionals. (2-5)
Respondents discussed that physical therapists of the future will be consultants with the patients but also with the rest of the health care team. Clinicians may be asked to come in to provide information and act as a resource consultant about their area of knowledge/experience to other staff members. Many of the focus group participants expressed some regret about acting in a consultative role in the future. They appeared to feel that physical therapists' main role should continue to be direct patient care. The increasing care supplied by support personnel seemed to concern many of the practicing clinicians. One of the comments included:

R: One of the more threatening areas I've seen is the use of physiotherapy and occupational aides. They're cheaper and they're utilizing them more and more and I think one of our roles is being shifted from practitioner to consultant.

I: And how does that affect you?

R: Oh, I'm concerned because that would be much more of a hands-off approach to a client as opposed to hands-on. And I think, you know, typically what physiotherapy has been has been hands-on (care). We do the treating, we direct it, we assess it, we progress it. And it's being taken away from us. (9-10)

One further influence on the direction of the profession moving towards a consultative role is the change in education of physical therapists. Most universities require an undergraduate degree prior to admission into the Bachelor of Science physical therapy program. Several universities have recently switched to a Masters program and thus clinicians will be graduating with a Masters degree in physical therapy. Many of the interviewees mentioned that this increased education level may be pushing the profession further towards a consultative role and away from a hands-on treating clinician.

4.3.3 Leader

Participants also clearly stated that physical therapists in the future will be required to take on more of a leadership role. They noted that the changes in organizational structure and the introduction of program management has eliminated many of the physical therapy department directors. The result has been that the average clinician may now be asked to take on leadership roles that traditionally were carried out by the director. Furthermore, since program managers may not be physical therapists, practicing
clinicians need to act as a leader of their profession to the rest of the health care team.

Comments from the focus group discussions included:

In the older structure, therapists could basically treat patients and stick to that, and now I think in this structure you have to be a leader, you have to have leadership skills, and you have to have the ability to educate others about your role and in that way impart what your needs are. (8-3)

Physical therapists may have opportunities to act in leadership roles within their own profession and also as leaders within the organization. They may have influence in participating in setting health care directions and strategic planning for the future. A few of the participants cited examples of new roles that their organization had created that physical therapists are holding. Leadership roles may include: clinical leaders, advanced practice professionals, physio-practitioner and primary patient co-ordinators.

4.3.4 Self-governor

It would follow, based on previously presented data, that one of the major role changes facing the profession of physical therapy is self-governance. The majority of participants stated that the changes in the public sector have led to a subsequent reduction of department directors. Staff clinicians are facing an increased need to govern their own professions. Several of the interviewees saw this new role of self-governance as a challenge and an opportunity for physical therapists. For the first time, physical therapists may need to independently ensure that professional issues are addressed on their team or program. The experts emphasized that this is a growing concern for the future of physical therapy.

Another role change is self-governance - that we have to embrace self-governance as a professional group, because we've lost our professional leadership. Someone else is not making decisions for us. (4-8)

Concurrent with the role of self-governance is other business administration activities. Many of the participants mentioned that physical therapists will need to be able to perform business administrative roles and tasks in the organization. One of the experts termed this as the 'corporate citizenship role'. The future of the profession appears to
include the roles that the former directors and managers of physical therapy conducted.

Suggestions from the participants included:

We're benchmarking in this restructuring business and you have to learn how to do things in accounting strategies, in written strategies and in analysis strategies.

(5-10)

4.3.5 Researcher

Increasingly, physical therapists are becoming involved in research within the public sector. Institutional missions include evidence-based practice and clinical research is a major focus of many health care centres. The prevalent feeling among the participants was that physical therapists will be required to be in a researcher role in the immediate future. One of the experts boldly stated:

Well the physiotherapist in this environment has to be an evidence-based practitioner, but I'm going to go beyond that. It's not just a matter of being able to read the literature and apply it to their practice; I think that's a given....this is not luxury; (research) comes with the job description. (3-3)

Many of the participants stated that this role is critical to their profession, since the pressure to increase the body of knowledge is very intense. Physical therapy lacks much evidence to support its treatment techniques. The experts stress that the profession as a whole needs to conduct research to provide evidence that supports what physical therapists do and say. Participants particularly appeared to realize that the public sector is the field that needs to be involved in this research. One of the focus group members commented:

Because as more physical therapy is done in the private sector, what does the public sector do that's different? And I think there are some things that the public sector can do that the private can't, and one of them is research. We can do things that are not profit-oriented, that are future-oriented whereas the private sector can't do that. (8-10)
4.3.6 Advocate
Another role change that surfaced repeatedly throughout the data was the role of advocate for the profession of physical therapy. Many of the interviewees felt that clinicians in the future will need to advocate more on the benefits and role of physical therapists. Without a department director or a direct voice to management, individual physical therapists may be required to speak representing the entire profession. A typical comment by one of the experts was:

Another role change for us is that we'll have to be advocates of our profession. We may be the only physical therapist in a program, for example, and we will have to educate other members of the health care team about what it is that we do, what we can do, where we fit in, so advocacy I think is a big, big role change for physiotherapists. (4-8)

Participants referred to the future demands for physical therapists to advocate for the needs of patients, for their own education, for funding, for equipment, for staffing or for any profession related issue. Many of the practicing clinicians expressed concern about how difficult it will be as a single individual to advocate for the rest of the profession.

4.3.7 Marketer
With consistent frequency, participants stated that physical therapists will need to take on the role of marketer. They noted that this role is not the same as advocating. Marketing was described as lobbying and selling the profession to the organization and to the health care system. Experts clearly said:

The role physical therapists are going to need is being marketers of the profession within their institutions and lobbying and making sure that physical therapy remains a core service. (6-10)

The emphasis was on ensuring that the value that physical therapy adds to the health care system is well known and acknowledged within staffing decisions.
4.3.8 Educator

Physical therapists have long considered themselves to be educators, since much of their time is spent educating their patients in prevention and treatment. Most of the respondents stressed that the role of educator is becoming more important, and while not entirely new, the role will change substantially to meet future needs of the profession. Health care and organizational changes are resulting in increasing forces that necessitate education within the system. Future physical therapy practice will therefore include new educator roles. Participants stated this in different ways including:

I see ourselves more as educators, not just education like with students and with the university but also within the teams because of the program management structure now. We have to work with teams a lot closer but the members don't necessarily understand about physiotherapy or what our scope is and our practice is. Education of the team. (8-10)

The experts also cited examples of the needs for education of the public about the value of physical therapy. The general public needs to know and understand what a physical therapist does and how this fits into the health care system.

4.3.9 Delegator/ Partner

Partially due to the increasing consultative role and partially due to other changes in health care delivery, physical therapists will be playing a larger role in the delegation of care. Interviewees mentioned that clinicians are no longer solely responsible for the delivery of physical therapy services. Other health care workers are now providing this care and physical therapists will be involved in delegating to and supervising these personnel. The expanded delegating role was outlined by many of the interviewees, and comments included:

The physical therapist will be a consultant and...delegating parts of our care (which will be) delivered by other health care professionals or workers and not just physical therapy support personnel. It may be someone who is multi-skilled or a nurse who is there more during the day. (6-13)

The role of delegating patient care will involve much more than just supervising support personnel. The ultimate responsibility for patient care will still reside with the physical
therapist and so these clinicians will need to train staff, integrate care and ensure that effective and safe treatment is administered.

A secondary, but still important, role change relates to relationships or *partnerships* among physical therapists and other members of the health care team. Participants commented that increasingly clinicians will need to partner with other professionals and physical therapy assistants to provide the optimal care for the patient. Since health care now includes many new members with different and changing roles, partnering in the future will be more critical. Experts cited the following as important issues regarding this role:

Some of the roles that we've already dealt with where role delineation is varied is between physiotherapy and occupational therapy... or respiratory therapy...I think that's always going to be evolving as one scope of practice pressures against someone else's scope of practice. So there's some of these corporate decisions that need to be made in terms of duplication of services. (3-8)

4.3.10 Clinical Expert

The final role change that was suggested by the participants was that physical therapists in the public sector will be required to be clinical experts. Program management has also had an impact on this area, as clinicians are expected to offer specialized services to specific programs. Hospitals and institutions are increasingly specializing in certain patient populations and this has tremendous implications for the staff working in these facilities. The experts noted that this role change is one that the profession needs to plan for.

One of the challenges that faces physiotherapy in rehabilitation at large is where are they going to go with their professional practice? Will they go up in extending their knowledge base or will ...they have people coming underneath them taking on an awful lot of their skills? (3-5)

We branch into specialty areas and choose what your specialty is going to be and then follow through with it. (9-18)
4.3.11 Other

In addition to the aforementioned role changes, experts also commented on several other features that will affect the role of physical therapists in the future. One of the experts focused very strongly on the socialization of the clinician and the direct impact this can have on their practice. The interviewee was concerned that the time needed for this socialization to occur is being shortened. Furthermore, independent practice can isolate the clinician and impair the socialization process.

An important role change... is socialization of professionals...versus what are the ethical boundaries of the individual...around making choices about conflict of interest, about who you treat and who you don't, and how you deal with the whole world around you of other health care professionals. (2-11)

Another expert was quite willing to discuss the desirable features of the future physical therapist. She outlined that not only does the profession need to change its role but it also needs an image change. She believes that the physical therapy role will be more ‘professional’ and that clinicians need to change the way they deliver health care.

R: I'd like to see an image change. Not necessarily just a role change.
I: And how do you see that?
R: ....They have to be more consumer driven, they have to be more customer oriented; they have to go in and out of people's rooms and their homes with more professional deportment. They have to change their image in terms of how they look and how they dress. ....how they speak to people and how they talk about care they're going to give. (5-9)

Participants appeared to all strongly feel that the role of physical therapists in the public sector is going to change in the future. Forces from the changing health care environment are having an impact on the traditional role of clinicians. The profession will need to adapt and be prepared for these new roles in the public sector.
4.4 Causes

The interviewees offered their thoughts very clearly on the challenges and role changes facing the profession of physical therapy in the next five years. My literature review (see Chapter 2) ascertained what changes authors and the professional associations determined that the future of both health care and physical therapy might hold. (Please refer to Appendix A for a diagrammatic representation of the driving forces for change.) I wanted to determine from the participants what they thought was causing these forces for change in the profession. The research questions asked of the participants were:

*Interview and Focus Group Question - What are causes or reasons for these changes to the role and direction of physical therapy?*

The respondents cited a number of causes with three factors mentioned the most often. Four other factors were suggested with less frequency but the responding participants appeared to feel very strongly about these causes and so I will include them in the findings. Please refer to Figure 3 for a diagrammatic representation of the categories and themes.

![Figure 3: Causes for Change](image)

4.4.1 New Health Care Environment

Overwhelmingly, participants responded that the future challenges and role changes are due to the new health care environment. They repeatedly referred to changes within the system and in health care delivery that are having major influences on the provision of physical therapy. Particularly interviewees cited examples of the new realities of the
economy and changes in *funding* to the public sector health care. Experts and focus groups participants alike emphasized that these funding cuts are one of the primary reasons for many of the changes that the profession is facing in the immediate future.

Typical comments from experts included:

First of all, there's the reality that we're working in a redefined work environment, a new work environment, a new health care environment and I mean that's very simple. There have been budgetary constraints, we're asked to be fiscally responsible, there's less federal transfer (payments) ... to acute care facilities. (4-10)

In addition to the direct reduction in funds, there are simultaneous changes in the public sector *organizational structure*. As outlined previously, many of the hospitals and institutions have implemented a program management structure. This change is viewed by the respondents to be responsible for many of the issues facing the profession.

In the process of restructuring ... we didn't have a permanent manager for almost two years. A lot of the things that a permanent manager would do would fall to people on the team ... somebody has to do the things that they were doing. (8-14)

Participants noted that although there is an increased demand for physiotherapy services in the public sector, there is a *human resource shortage*. Many sites are keeping less physical therapy staff and hiring more support workers. Interviewees remarked again that this organizational decision is directly affecting the role change of physical therapists towards a consultant role. Participants were concerned that physical therapists are being asked to do more but with less funds and gave many examples of the large impact this is having on the practicing clinicians. The changes in the public sector have created a more *competitive environment*. Participants seemed to place attention on issues such as the change in terminology of 'patients' into 'clients'. The concept of fighting for market share and for clients is still viewed as quite new in the public system. Experts stated that for the first time clinicians need to attract and keep clients. The increasingly competitive nature of the health care system was not just restricted to competition within the public system but many participants cited *competition from the private sector*. This change was viewed by the majority of interviewees as very significant.
Comments included:

In the public system... the waiting lists are disappearing, there is more and more competition from the private sector, and I think you're gonna need to understand why the ones who don't come back, don't come back. (2-13)

In some respects I think the pressures come from the private sector as well, because since they've always been in a position of having to compete for money and business...it sort of pressures us into competing along their lines and implementing the same kind of tests and measures. (9-16)

4.4.2 New Patient

Another significant reason for change cited by every interviewee is the new patient that is using the health care system. Patients are presenting as better educated or informed about health care. They have increased access to information via the Internet and there appears to be more focus on educating the public about health care in general. Increased patient education has placed more demands on physical therapists to have evidence to support what they are doing. Patients, or clients, who are better informed, may have greater expectations from their health care providers. One expert stated:

I think the other thing that's happened is that knowledge has changed. The access to communication and knowledge has absolutely had a major impact on what's happening and will continue to happen. When your client can come in and give you facts on the topic that you're talking about and you haven't read it but you are supposedly the expert, you have a big problem. So I think that the knowledge explosion has done that. (5-12)

The new patient also is pushing physical therapists to market their services to the public. Interviewees mentioned that duplicating services or the overlap between some of the health care professional roles is being questioned now from the patients. Clinicians in the future will need to be able to clearly explain their role to their patients and expect to answer strong questions regarding their care. The client is now viewed as the centre of care and the focus is on the patient and their family as the key decision-makers of care. Several of the participants referred to this as the patient being more active and not a passive recipient of their health care.
I think we've got a new type of patient. We're not just providing care to a patient that's happy to come in and be a passive participant - you tell them what they're gonna do, you show them and you bring them back. No, the new type of patient is possibly better educated, more informed. ... They are expected to be active partners... and to take an active role in their health care experience... (4-11)

4.4.3 New Role

The new role that physical therapists are playing in the public sector health care system is another major reason for change and for the future challenges facing the profession. I have outlined in detail, earlier in this chapter, the participants' opinions of the role changes that will influence physical therapists. Participants cited examples of increasing research needs, the consultant role, self-governance and marketing as catalysts for many of the changes within the profession. Most of the participants also mentioned that these changes will create a new physical therapist who has an expanded role within the system. This change is occurring since other roles are also being modified. Experts offered the following as responses:

The other pressure for the changes in expanded role is that our colleagues are doing that, and again, we just don't like to be left behind. (3-1)

So I think roles of other health professionals have changed because they're interdependent role changes. (5-13)

Role changes for physical therapists are also seen as the direct result of changes in the environment and in the delivery of health care. Private sector growth appears to be having future implications that will greatly influence the public sector. This, in turn, is viewed as changing the role that physical therapists will be playing. An excerpt from one of the expert interviews identifies this change:

R: Basically rehabilitation in physical therapy is no longer a public sector entity. It's been disenfranchised from the Canada Health Act in my opinion.
I: And where is it moving to?
R: To the private sector. The issue is only the really ill are going to get public physical therapy and the rest are going to pay for it. So that's what it really means in role change, it's a different kind of physical therapy that's delivered... (5-13)
One other cause for the changes in the role of the physical therapist that was cited is the emergence of Masters degree trained clinicians and the emphasis on clinical research. Several interviewees mentioned that this increased credentialing is creating forces for change within the profession.

To summarize, the data showed that three primary forces for change in physical therapy are the new health care environment that clinicians are working in, the different type of patient that therapists are working with and the new roles that physical therapists are adopting within the public sector. Participants cited four other possible reasons (Sections 4.4.4 - 4.4.7) that the role and direction of physical therapy will change in the next five years.

4.4.4 New Attitudes
Respondents believed that many physical therapists are developing new attitudes about their profession and about the roles that they should be playing in the health care system. Part of this attitude change affecting clinicians is due to the external forces previously presented. What is perhaps most interesting, is that this attitude change is also due to the internal pressures and forces that are arising from the physical therapists themselves. Participants shared with me that they are sensing that the practicing clinicians are ready and pushing for changes in their roles. One of the experts suggested that this is partially from a natural maturation of the profession. Physical therapists are continually changing and growing, and this drive towards new challenges and directions are consistent with the continued development of the profession.

Several participants placed attention on the new expectations that physical therapists have of their job and their goals for their careers. Examples include:

...I think a profession is evolving. We have different expectations... As professionals, we come into a professional program with different attitudes, different expectations. So no, it's not a shock necessarily; and it's not just external forces. I think part of that is as our profession is evolving we've adapted, we've taken on new roles, we want to take on new roles as well. (4-12)
I think the expectation in terms of what we want from the job has changed and that's what's driven the push towards Master's. (9-17)

4.4.5 New Family Structure
The new family structure was another cause for change that was mentioned by a few of the respondents. Physical therapy traditionally has been a female dominated profession and has therefore seen great changes as more and more females have chosen to stay in the workforce. Increasingly, families now have two individuals working outside the home. The creation of increased flexibility of both work hours and locations has further influenced the family and the workforce. Part-time work and job sharing are prevalent in the profession and interviewees stated that this is likely to continue and grow in the future. These family structure changes have resulted in different professional demographics, which in turn has affected and changed the role of physical therapists.

4.4.6 New Working Relationships/Partnering
New working relationships and the need for forging partnerships with other health care professionals was another reason mentioned by participants. Multi-disciplinary teams are the norm in health care and this team has recently grown and changed members. Complementary or alternative therapies are now appearing in the hospitals and this creates new challenges as other health care professionals learn about these new roles with patient care. Support personnel such as physiotherapy assistants, aides and multi-skilled workers appear to be increasing in numbers in the future plans of the public sector. Relationships with these workers need to be forged and the partnering of care must be balanced. As a result of these changes, physical therapists are facing new challenges and different roles.

4.4.7 Institutional Pressure
The final cause for change cited by participants is the institutional pressure that has established new expectations and demands on the profession. Many public sector institutions are forming mission statements that include commitments to research, to excellence in patient care, to teaching and to other academic responsibilities. As a result,
all staff are expected to work towards this mission statement and their own profession’s
directions must match and complement the institution’s plans. Several interviewees cited
that this strong institutional pressure and academic push will continue to drive and
change the direction of physical therapy. One of the experts summarized by stating:

There is all sorts of different pressures, I think. The academic part is an
institution pressure.... It’s their mission as being the best academic ....health
science centre in the world. It is written; it’s black and white. So we need to rise
up to that... that’s a major pressure. (3-11)

Participants cited multiple causes or reasons for future changes to the role and direction
of physical therapy. Many of these causes are from external pressures or from outside the
profession, but clearly several of the reasons are internal and coming from within the
practicing clinicians and the profession. Identifying the forces for change is useful, as it
helps to put into context the future direction of physical therapy.

4.5 Future Skills and Behaviours

Once the challenges, role changes and causes for change in the future of physical therapy
have been determined, it is appropriate to next identify the skills and behaviours that
clinicians will need. Also embedded in this identification are the knowledge and attitude
changes that will be required by future physical therapists. The question that was posed
to the research participants was:

*Interview Question* - Given the new directions of the profession of physical therapy, what
changes in their practice will physical therapists need to make to meet these challenges
in the future? (Probe: What *skills* and *behaviours* will be most important?)

*Focus Group Question* - Given the current changes to the profession of physical therapy,
what changes in their practice will physical therapists need make to meet these
challenges in the future? (Probe: What *skills* and *behaviours* will be most important?)
It was exciting to watch the passion and enthusiasm that participants exhibited when they responded to this question. It was clear that this topic inspired the interviewees to share their ‘words of wisdom’ and suggestions for the future. There were a wide variety of responses and I have separated the data into categories according to content and description. Many of the categories are similar to the responses that were received in the previous three sections of this chapter.

Please refer to Figure 4 for the future skills and behaviours required by physical therapists in the future. This list is not meant to be exclusive (i.e. technical skills may also require conceptual skills, or skills that need to be developed may be skills that physical therapists currently possess etc.). I have categorized the data according to the participants’ reference to the need for the skills. I will briefly outline the skills that need to be maintained by clinicians and then I will focus on those skills that need to be developed in the future.

<table>
<thead>
<tr>
<th>Maintain</th>
<th>Develop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Skills (clinical care)</td>
<td>Technical Skills (computer, expert clinical skills)</td>
</tr>
<tr>
<td>Conceptual Skills (analytical skills)</td>
<td>Conceptual Skills (critical thinking, self-reflection/learning)</td>
</tr>
<tr>
<td>Interpersonal Skills (teamwork, leadership, communication, advocacy, educating, delegating)</td>
<td>Interpersonal Skills (teamwork, leadership, communication, advocacy, educating, delegating)</td>
</tr>
<tr>
<td>Professional Skills (consultant, researcher, professional identity)</td>
<td>Professional Skills (consultant, researcher, professional identity)</td>
</tr>
<tr>
<td>Self-Governance Skills (strategic planning, marketing, evaluation)</td>
<td>Self-Governance Skills (strategic planning, marketing, evaluation)</td>
</tr>
</tbody>
</table>

4.5.1 Skills and Behaviours to Maintain
Participants clearly wanted to ensure that physical therapists of the future maintain their technical skills, which includes their excellent clinical skills. It appeared to be important for the interviewees to state that they feel that as a profession, physical therapists possess very good clinical abilities. They are proud of these skills and behaviours and believe that clinicians of the future should keep their skills in this area strong. Furthermore, they should continue to maintain their conceptual skills including analytical skills of problem solving. Participants mentioned that physical therapists have advanced skills in these
areas that will continue to be important in the future health care system. One of the experts summarized by stating:

... Still be expert at clinical care; again still the focus on manual clinical skills, analytical skills, all of those things. We don't want to give those things up. (4-13)

4.5.2 Skills and Behaviours to Develop

The focus of many of the interviewees was on the skills and behaviours that physical therapists need to develop. Many of these future needed skills and behaviours align with the challenges and role changes that the participants referred to in previous categories. The data will be presented in five themes of needed skills and behaviours.

a) Technical Skills

Interviewees commented that the future clinical role of physical therapists will be enhanced or expanded to include new areas and specializations. This change will require new skills and behaviours that will be critical to the success of the profession. Many participants noted that physical therapists will need to have expert clinical skills in their chosen area of health care. An opinion leader said:

With the expanded practice role piece, whether you're an expanded practitioner or you're not, you have to acquire every single skill set that you can put your hands on that will serve your patient population. You have to be the top expert in that field. (3-15)

This increase in clinical skills was cited as being vital to the future new role of consultant and independent practitioner. Focus group participants in particular seemed to be concerned that physical therapists will need to further develop their skills to take on this new role. Typical comments included:

So you really do need these big, huge skill sets, and if you are going to be a consultant you have to know which ones to test and how to make your decisions based on your tests. The skill set to be able to put these large amounts of information and extrapolate it into what's needed and what are your recommendations for this client. (9-24)
But in some ways we're not given the tools, something like the diagnostic tools that we need for our practice; so learning how to use the various new technologies that are coming out, the MRIs, the x-rays and that type of thing. We're supposed to be primary care practitioners... but yet we don't have those skills. (8-20)

In addition to the expert clinical skills required, participants also cited the future need of physical therapists to have good *technical skills related to computers*. With so much of the future based on new technologies, all clinicians will need to be able to utilize computers with ease. Using email for communication, surfing health care Web sites for information and running Internet searches for research activities were just a few of the examples given by the interviewees. It was stated that collectively physical therapists currently do not possess these skills. Clearly the profession will need to be better at accessing and using on-line information.

**b) Conceptual Skills**

Physical therapists will need to develop further their conceptual skills. New roles and responsibilities related to independent practice and self-governance will require all clinicians to possess strong skills of *critical thinking*. Decision-making and *strategic planning* were also cited as very important skills for the future. Interestingly, the interviewees also emphasized that practicing clinicians will need to further develop their *self-reflection skills*. They mentioned that the ‘need to know’ will be more and more critical to the professionals working in the new health care system. Physical therapists who continue to learn throughout their lives will be able to adapt and grow as the environment changes in the future.

The most significant outcome of this research was that overwhelmingly, participants responded that physical therapists of the future will need to develop their *non-clinical or non-patient care skills and behaviours*. Every participant focused on these areas as the most important new skills and behaviours for physical therapists of the future. They believe and strongly stated that the future of the profession rests with the development of the non-clinical areas of practice.
Experts shared their views:

I want to emphasize: I think some of the other things besides the application of client intervention skills (are most important).... I think that a lot of the other things going on outside of direct (patient) care, influences and affects their (physical therapists’) ability to deliver that care. And if we don't pay attention to the dynamics, the organization and what is happening in the larger realm then we are not going to have an opportunity to deliver care in the future. (6-20)

These are sort of, as I say, non-clinical skills, if you like. And I kind of hesitate to use that term as though there's a clear separation between the two. Because having all these skills makes you the clinician you are. (4-14)

... (These new skills) in addition to our present skills. I'm not saying we need to focus only—we don't want to just become managers, administrators, we still want to be involved in the business, but it's the *art* and *science* ... of physiotherapy. (4-14)

c) Interpersonal Skills

When asked to identify future needed skills and behaviours of physical therapists, the first theme cited by virtually every participant was interpersonal skills. The new roles of practicing clinicians will require new skill sets that include many areas of interpersonal skills. The following are the major interpersonal skills/behaviours that were identified by the interviewees and examples of each will be provided.

The most frequently cited interpersonal skill that needs to be developed was *communication skills*. This includes communicating with the rest of the health care team, public speaking or presentation skills, writing skills and also intra-professional communication. Participants commented that the profession of physical therapy will need to enhance their abilities to communicate effectively if they are to take on the new roles that the health care environment is demanding from them. Interviewees responded:

I would say communication... It's the ability to clearly state your case, and the ability to state your case in difficult situations, and then to be able to listen, acknowledge the other person, and then make a decision that's to the benefit of the client. (7-20)
Understanding how to communicate and work within an environment where your leader is not a physical therapist. Communication and interacting skills (are needed). (6-20)

Participants clearly focused on this area and cited many examples where this would be necessary. They emphasized that physical therapists will need to give and receive feedback effectively, manage conflict resolution and communicate their clinical decisions. Other key areas of communication for physical therapists that need to be well developed are the willingness to have a strong voice and the ability to communicate the profession's goals to the rest of the health care team. Communication skills of advocating and marketing were therefore seen as very important to the future of the profession.

Inherent in an environment where individuals work in interdisciplinary health care teams, is the need for well-developed skills and abilities to work within teams. This includes communication skills but also knowledge about the roles of team members and how to work most effectively as a member of a team. One of the experts stated:

If you have all the clinical (skills) and you have no communication skills, forget it. Public institutions work in teams....You have to be a team player, you have to know what type of team player you are, when do you need to switch hats, to be the leader... (3-16)

Interpersonal skills such as leadership and assertiveness skills were also one of the most cited skills that physical therapists require for the future. As the participants noted under question two (role change), physical therapists are being asked to take on new leadership roles. They need to be competent and confident in their leadership abilities and be able to effectively lead physical therapy and interdisciplinary teams. Clinicians need to also define what leadership is for the profession and to determine what kind of leadership is required. The experts' opinions were represented by this comment:

I really, really strongly feel that what we need, in all of us, is stronger leadership skills, self-confidence, assertiveness training and confidence training. (1-4)
Many of the interviewees also emphasized that this new leadership must fit with the corporate health care system version of leadership. Physical therapist leaders will need to possess the skills and behaviours that will ensure their success in working with others within the business of the delivery of health care.

But the challenge is more the difficulty to make the change from a professional skill set that you could be an advocate and a leader... to all of a sudden a corporate mind set and if you haven't experienced corporate life, you just don't know what it is. And the corporate life within health care is as grueling as corporate life in business. (3-6)

Several of the participants mentioned that physical therapists of the future will need to have more advanced *educating skills* and *skills for the delegation of tasks*. This will be more and more important as the health care team continues to grow and change members as the environment adapts. Other health care professionals will need to be educated about the role of physical therapists. Support personnel and assistants will need to be supervised and educated about their roles within each organization. Practicing clinicians may be required to take on leadership roles that need strong education skills. Examples of expert comments include:

Physiotherapists have to become the centre of the team and to be able to facilitate the interactions; (they need) facilitation skills. (1-4)

The other thing we've learned is that one of the key ways you keep your skill set up is through teaching and being a clinical tutor. (2-10)

d) Professional Skills
The second large theme of the needed skills and behaviours falls into the category of professional skills. Virtually every respondent stated that physical therapists of the future will need to enhance their skills of being a professional. The change of roles to *independent practitioner* and *consultant* carry with them new skills and behaviours that clinicians will require. One of the most cited examples of professional skills is that physical therapists need to develop a much clearer and stronger *professional identity*. Participants stated that they will need to have a more positive self-image about their profession and a true sense of the value that they bring to the health care team. Their
self-perception and self-confidence about their role and knowledge need to be increased. Each clinician needs to participate in goal setting and role redefinition. This involvement was seen as helping the physical therapist feel that he or she is assisting with determining professional expectations and establishing the future directions of the profession.

Many interviewees commented that physical therapists need to further develop their professional deportment. They need to speak, act and dress more professionally. Experts commented:

Physical therapists have to be more conscious, I think, about being a professional... how to carry yourself, how to speak, you're not the client's buddy. You're the professional. (7-18)

The opinion leaders also spoke about physical therapists needing to develop more elegance with conflict resolution and more tenacity to stand up for what they believe.

Another professional skill that physical therapists will need for the future is the ability to network and offer increased intra-professional support. Several of the interviewees commented that presently the profession does not acknowledge or share information about others' work within the field. This was seen as necessary for the future growth of the profession. Furthermore, mentoring was suggested as a potential valuable way of increasing the intra-professional support. Skills associated with acting as a mentor would therefore be useful for future clinicians. Regarding future networking, one of the opinion leaders stated:

I think we have extreme intelligence and really good skill sets. The bottom line is we don't share that. So it's not a role change, it's not doing anything differently on those fronts; it's just celebrating our successes and things like that. (5-11)

The final professional skill discussed was to develop improved research skills and knowledge. Since role changes appear to include more clinician research involvement, physical therapists will require strong abilities to conduct and analyze research. This will include applying clinical practice guidelines and integrating the information into the
organization and area of practice. One of the experts even rated this as the most important future needed skill:

My primary need for skills (for physical therapists), would be evidenced-based related skills. To be able to critically appraise the literature. (1-4)

e) Self-governance/ Business Administration Skills

The last category of future needed skills and behaviours is self-governance or business administration skills. As presented previously, physical therapists in the immediate future will be taking on more of a self-governance role within the institutions. This will require a new set of skills, including many areas of business that clinicians may not have ever had the opportunity to learn. Skills in areas such as workload management, financing, accounting, organizational behaviour, evaluation and strategic planning may need to be developed. Physical therapists’ new roles may include serving as leaders or program managers; these demand skills sets different from just clinical skills. Typical comments from the experts included:

But I do think that we were in a culture that encouraged you to not be a manager, and then suddenly we're expected to be; and I think people had rusty skills. (2-6)

The majority of participants cited as a future need of all physical therapists to possess strong marketing skills. Clinicians will need to have a comprehensive understanding of the profession and be able to market and portray this clearly to the organization and the rest of the health care team. One of the focus group participants expressed this need as follows:

It's basically sales skills, like we could be in the business of sales whether we're selling the importance of our role on the team or our role in the whole health care system. We're selling the importance of our role with the patients and the family, and we're in sales. So it is marketing skills that we need. (8-24)

Knowledge of the health care system and how the 'big picture' of the organization fits with physical therapy services is another important skill which will be needed in the future. To ensure that the profession is prominently included in the delivery of future health care, clinicians will need to be able to interpret the corporate language and
organizational system. Physical therapists will need to understand the politics of the public sector and how all the systems functions together. Most of the experts acknowledged that this is very lacking in present skill sets of physical therapists. They were placing a lot of attention on this area and appeared to see this as critical to the success of the profession. Comments included:

I see people needing more of a broader knowledge of how the health care system works. More involvement in things like district health councils and the bodies that understand how the money is spent. (2-16)

A different set of skills they need to learn… .I think they need to learn something about generic knowledge, I think they need to learn something about the health care system…And then how they contribute to the whole, how they contribute to the macro rather than the micro. (5-5)

If you want to be funded out of a public sector function, then you must do and meet and align with the mandates of the public sector. (5-15)

The participants noted that increasing the physical therapists' knowledge about the larger health care system will allow for improved planning of the future directions of the profession.

Interviewees clearly identified areas of future needed skills and behaviours that physical therapists should maintain and develop. Future challenges and role changes can be combined with gaps in present skills and behaviours to identify these changes in practice. The skills and behaviours have been grouped into categories that summarize the comments by all the participants. Themes and trends have been collected and can now be used to assist in identifying solutions to decrease the learning gaps or educational needs.

4.6 Solutions to Decrease Educational Need Gaps

The skills and behaviours that were cited by the participants can be seen as learning needs for the future. The focus group participants were practicing clinicians who were asked for the current needs of physical therapists. I have included this data with the
interview data that requested future needs. The skills and behaviours mentioned can therefore be seen as gaps in the learning of physical therapists. The research participants were then asked how this gap could be decreased. The question posed was:

*Interview and Focus Group Question - Given all that we have discussed, what would our Continuing Education Committee need to offer to meet the needs of physical therapists in the future?*

I asked the experts one further question that also provided some helpful and insightful data:

*Interview Question - What advice would you give to new physical therapy graduates to best prepare them for the future changes to the profession?*

Participants were quite willing to discuss what physical therapists will need from continuing education in the future. They made a number of suggestions to decrease the educational need gaps, and the primary themes follow. Please refer to Figure 5 for a diagrammatic representation of the solutions offered.

**Figure 5: Solutions to Decrease Gaps**

![Diagram of solutions to decrease gaps](image)

4.6.1 Continuing Education

Generally speaking, continuing education was highly recommended by all of the participants. Most made reference to the importance of keeping up with the changing health care system and noted that continuing education offers many ways of updating their knowledge, skills and behaviours. All interviewees cited the need for ongoing
learning, and in fact several mentioned that lifelong learning is one of the most critical skills required by physical therapists. Continuing education on approaches to ongoing learning was recommended. This included focus on learning logs, self-reflective practice and self-directed on-line learning. This attention to self-assessment and reflection on practice was also encouraged through continuing education to assist the clinicians with future roles changes. Interviewees commented that physical therapists will need to change their role and also their attitudes towards their role in the public sector. Continuing education interventions that challenge clinicians' present perceptions were suggested as one way to help with the transition. Lifelong learning and the ability or willingness to adapt to changes in the profession were both issues that continuing education may need to address.

The most prevalent finding of this research was that the focus of future continuing professional education for physical therapists should be on the non-clinical or non-patient care areas of practice. Experts and focus groups participants all emphasized the need for continuing education to focus on the skills and behaviours that were identified in Section 4.5. They stated that the future will demand those skills from clinicians and that continuing education should provide therapists with opportunities to acquire these new abilities. Participants placed particular attention on the skills of leadership, communication, teamwork, professionalism, computers and business administration. Courses or continuing education activities on all of these topics were suggested many times, and clear future needs in these areas were again mentioned. Typical interviewees comments included:

The focus of the CE committee should not be on (manual) techniques. If you are asking me what the community needs, it is not them. I think what physical therapists need is courses on how to use the literature into practice, leadership, assertiveness training as applied to physical therapy. (1-10)

And they (new physical therapy graduates) come out and what we have are scientists. And then those scientists have to develop the art of being a professional. (7-24)
Not just clinical skills, but if you want to have leaders that can move forward, I mean eventually somebody will have to train leaders. (3-8)

Three additional non-clinical skill sets were repeatedly cited as needed areas for physical therapy continuing professional education. Opportunities for learning an evidenced-based approach to practice was strongly suggested by the majority of interviewees. Skills in research need to be increased throughout the profession. Related needs mentioned include: how to become a more critical evaluator; how to read the literature; how to appraise an article; how to critique; and particularly how to apply what is in the literature to practice. Continuing education on the implementation and evaluation of outcome measures is also needed. Another large area that physical therapists need to vastly improve is in their knowledge of health care systems, health care delivery and organizational policies. Courses or continuing education activities that offer clinicians a chance to see the ‘bigger picture’ are very needed. Participants repeatedly stated that physical therapists need more ‘out-of-the-box’ thinking and need to see how the profession fits into the larger context of health care. The other area that most participants requested of continuing education is the need for physical therapists to have strong marketing and public relation skills. As clearly outlined in previous sections of the findings, the future will demand that all clinicians be involved in selling and advertising the profession. Physical therapists’ roles and strengths need to be communicated to the health care teams and the public. Networking and intra-professional support/acknowledgement were also cited as related areas critical to the profession.

Some attention was placed on the need for courses relating to clinical specialization. With expanded practice and clinical expert roles entering into the institutions, physical therapists will need to have opportunities to expand their knowledge, skills and behaviours in their chosen area of specialization. Most of the participants recommended that these type of courses be offered in conjunction with the non-clinical areas cited above. Therefore a continuing education event could focus on one particular clinical skill set but also on the policy changes and research needed in that field. Non-clinical and
clinical expert skills/behaviours could be combined to offer a more *multifaceted* approach.

When asked what the Continuing Education Committee should offer for physical therapists, many of the participants recommended that *upgrading courses* or programs should be offered. Clinicians who have been practicing for many years would benefit from refresher courses or programs that update them on new advances in the profession. Expert suggestions include:

For Continuing Education, University of Toronto, you may want to look at developing upgrading, ....the University is the ideal place for a person who voluntarily self-assesses that they need an upgrading program. .... and there was a general program of upgrading to be had. It would be an opportunity for us to direct them. (2-21)

Older therapists, that have maybe been in the system long enough that they need a bit of a shake-up. They have some fairly entrenched beliefs and they need a little challenge, and they really enjoy looking at it from a different perspective. (2-18)

The next recommendation that the majority of interviewees made is that the Continuing Education Committee consider helping the profession to adopt a *mentoring system*. This could be done in a formal matching program or informally encouraged throughout the public sector. It was strongly stated that physical therapists would benefit from having a mentor to discuss challenges and questions related to practice. The mentor could also serve as a model and offer the one-to-one interactions that may be missing in the future.

Other suggestions for Continuing Education involvement were made with somewhat less frequency. Several of the issues are organization-specific, but the participants seemed to feel that the University, and especially the CE Committee, may have some influence in these areas. The comments are summarized in the following list:

- The U of T CE Committee should *partner* with the College of Physiotherapy, professionals associations, hospitals and other health professional education groups to offer combined programs.
• Each organization should conduct a *needs assessment* of their physical therapy staff to identify the available skills, strengths and weaknesses. University CPE programs can then be offered according to needs.

• The University should offer *Web sites* with all upcoming educational opportunities listed. This site should also have a central registry where courses and programs can be registered for on-line. Furthermore, Internet courses should be offered for those who wish to have self-study programs or who can not attend the formal courses.

• The Continuing Education Committee should change its name to *Continuing Professional Development Committee*. Continuing education is just one piece of the professional development of physical therapists, and courses are only one way to facilitate the growth of professionals.

• The University and Professional Associations should work together to develop and support *journal and peer clubs* that would offer clinicians the opportunity to network and be challenged by their colleagues.

• The University and Professional Associations should help to lobby organizations to offer the appropriate *institutional support/ resources* for physical therapists. This includes time, money, staff coverage and course offerings that will effectively prepare clinicians for the academic push and changes to the health care system. Focus group participants in particular expressed their concerns and needs regarding this area:

  A lot of the front-line staff had great ideas and wanted to move forward to it, but the administrative powers weren’t there or the structure wasn’t there to support it. So even though we (clinicians) were all willing and eager to do all these things we were supposed to be doing, we kept getting squashed because the structure wasn’t there and ready for us yet. (8-14)

4.6.2  Novice Practitioners

Participants had some very specific advice to offer novice practitioners to help them to be prepared for the future changes in the profession of physical therapy. Some of these suggestions relate directly to the aforementioned sections of this chapter. Overall,
interviewees wanted new graduates to be very open and flexible to new ideas and to the rapid changes that will be facing the profession. Recommendations included:

- **Adapt to the new skills and behaviours** that are required by ensuring that lifelong learning continues as part of daily practice.
  
  Don't stagnate and fall into the routine, and keep asking questions. (1-15)

- **Work in teams** that will allow for sharing of information and health care discussions that will further the knowledge base and 'big picture' of service delivery.

- Participate in professional associations or community committees as a leader or member.
  
  I feel very strongly about professional involvement – it keeps you enthusiastic about the profession. (1-15)

- **Achieve a strong sense of professional identity** that will help personal confidence and in marketing and advocating for the profession.
  
  I would probably give them the advice to be proud of what they do, proficient in what they do, and share what they do. (5-18)

- **Continue to keep up-to-date with changes in the health care system** and within the organization. Ensure that physical therapy maintains a strong presence in the delivery of health care.
  
  Always be aware of what's going on in the health care system. Always be watching to see what the changes are... And always look for opportunities to position yourself. (7-25)

The research participants clearly offered many valuable suggestions as to what the Continuing Education Committee needs to offer to meet the needs of physical therapists in the future. Interviewees appear to believe that continuing education will play a large role in helping clinicians prepare for upcoming changes.
4.7 Challenges or Barriers to Solutions

The final category of data that I would like to present is the challenges or barriers to the solutions proposed by the participants. This theme emerged from the data during the preliminary analysis and was not the result of a direct question in the interviews. In order to get the practicing clinicians' responses, one question was subsequently added to the focus groups.

*Focus Group Question - If the Continuing Education Committee offered courses such as the ones that you have identified today, would you attend these activities? Why or why not?*

Participants appeared to want to offer information about why the solutions would be challenging or why they would be potentially difficult to implement. I felt that this category should be presented with the findings since the data may be quite useful in future planning of continuing education for physical therapists. I have described below the main challenges to the previously presented solutions, with supporting data from research participants. Please refer to Figure 6 for a summary of the challenges to the solutions proposed.

The most cited challenge presented was the *perceived value or need of non-clinical/ non-patient care courses*. Many participants observed that although clinicians may see that these types of courses are important, they may perceive the clinical courses as more critical to their practice. Direct patient care continuing education interventions may be
prioritized ahead of the non-clinical activities (i.e. leadership training or communication skills). Limited resources in the public sector further force clinicians to very critically choose the continuing education that they attend. Unless physical therapists recognize the importance of improving their non-clinical skills and behaviours, they are not likely to take courses in it. Typical comments by the experts include:

So that's what I see the difference will be - the leaders will be saying the physical therapists need to be expanding, they need to be looking for the future of where is the profession going and the clinicians, I bet you by and large, continue to be quite linear and quite focussed on anatomy, physiology and treatment. (7-2)

Well, I still think physiotherapists are very interested in any continuing education courses that are based on clinical skills, providing treatment.... They're not so interested in going to a forum on communication skills and how to appropriately give feedback ... non-clinical areas. And I'm not sure how you are going to convince the community at large, that that's an area that we need to develop. That is the reality of clinical practice, is people are saying, 'I'm stretched at all ends and patient care has to come first'. That's their priority.... (4-19)

Practicing clinicians also expressed concerns about the realities of taking non-clinical courses. They emphasized that the clinical role is still the most important to them and to their managers, and they questioned if they would truly be willing to participate in non-patient care activities.

To be honest, I only have so many education dollars that I can fork out in a year, and if something comes up as a clinical course versus a non-clinical course, I'd probably go to the clinical course because somehow you feel your five hundred dollars is worth it there. (8-21)

Several participants felt strongly that another barrier is the restricted resources to attend continuing education interventions. They referred to limited funding, time, staff coverage and organizational support as challenges for physical therapists. If managers do not support and encourage clinicians to participate in non-clinical learning, the result is that physical therapists are less likely to attend these events. Even if the need for change and new learning is immediate, the experts stated that the organizations may be unable to effectively support the clinicians.
I don't think we're going to have a problem convincing the individual in lifelong learning; I really see no evidence of that. I think we're going to have a problem convincing the system to support them so that they can do it quickly. (2-9)

Another area of challenge to continuing professional education is with the *new graduates*. Several interviewees were concerned that the changes between graduation, the licensing exams and then clinical practice are too sudden. New graduates are not given enough time to fully consolidate their skills or to develop their own ethical boundaries. Independent practice and program management have further isolated the novice practitioner and forced a very rapid socialization of physical therapy new graduates.

I do think it's too sudden of a jump off the cliff between graduation and working right now. That's what I'm hearing. And because of the Physiotherapy National Exam and all the rest of the pressures that are on them, it seems to delay (their professional development) for about six months. (2-24)

Other challenges or barriers that were mentioned include:

- Continuing professional education aimed at the *upgrading* of practicing clinicians may be very difficult to implement. Physical therapists who have been practicing for many years may be resistant to change or to admitting that they need to upgrade their skills and behaviours.

- With all the organizational structure changes, physical therapists may not feel that they have much room for professional *growth or change*. Limited career laddering and program management may further influence the clinicians' feelings that they lack new opportunities. Boredom, stagnation or complete withdrawal from the profession may be the impact of these situations. Continuing professional education may face multiple barriers with these clinicians.

  They may also feel that they cannot move forward because the environment is pretty challenging right now. (3-25)

- Physical therapists may have a future with new roles and positions but they may not have the *ultimate power to implement changes*. Many of the leadership roles are professional, not corporate, roles. This may translate to limited authority for changes
in staffing or in the delivery of care. The lack of power may directly influence participation in continuing professional education that attempts to address issues of leadership skills.

Well the bigger picture isn't ready for us. They're asking for it but I'm not sure they're ready for us. They're not really integrating our input that we're trying hard to give. That's frustrating. (8-6)

- Communication and co-ordination of continuing professional education will be very challenging. Physical therapists often are not aware of upcoming events because their organizations or leaders may not have shared the information or publications with them. Furthermore, partnering between Professional Associations, the College and the University may be very difficult to co-ordinate.

- Physical therapy clinicians may not want the new roles facing them in the future. They may be quite resistant to the changes and refuse to participate in new activities or continuing professional education on these topics.

  I agree we have to learn to do (these new roles) but part of me really doesn't want to do that. What I like and what I'm good at is treating my patients and that's what I would like to do. But we do have to learn how to do those other things. I just feel like I'm being drawn there against my will. (8-4)

- Continuing professional education delivery may be very difficult in the future. Participants questioned whether CPE should be offered at an institutional or program level versus the University or Professional Associations. The decision to offer clinically specific CPE versus generalized clinical or partially non-clinical activities were also mentioned as large challenges to the success of CPE in the future.

Participants clearly outlined future challenges or barriers to the solutions proposed for continuing education. Many issues were identified and concerns raised about the success of future CPE interventions.
Research data have been collated and presented in the foregoing chapter that summarizes the participants' responses to the questions posed in both the interviews and the focus groups. The data are rich with ideas, and clear themes and categories have emerged. This presentation was meant to give a detailed background for the discussion to follow. Findings can now be theoretically analyzed and conclusions reached including suggestions for further research topics.
Chapter 5: Analysis of the Findings

I think your questions are hard and I appreciate the problem you're going to have when you try to pull this together, because it's probably easier to stay in the clouds than get down to earth. (2-25)

5.1 Introduction

How do the responses from the interviews and focus groups compare to the continuing professional education and health care literature? The research findings in Chapter 4 will now be compared from the point of view of the literature already discussed in Chapter 2. This chapter therefore contains a theoretical analysis of the findings. The expert interview findings will be discussed first and then the practicing clinician focus groups will be presented. Finally, a gap analysis or presentation of the differences between the expert interviews and the practicing clinician focus groups will be addressed.

5.2 Expert Interviews

Overall, the expert's opinions in this research aligned very closely with the literature. The seven leaders chosen for interviews represented a true cross-section of the public health care sector including: hospitals/ institutions, community care, academic, the regulatory college and professional associations. While the experts' backgrounds and experiences are very diverse, their views about the future changes to the profession of physical therapy were quite similar.

The opinion leaders during the interviews discussed many health care system changes. Collectively, the experts emphasized that these provincial and local changes will have a profound effect on the future of physical therapy. The funding cuts to Ontario hospitals discussed by Theobalds and Bryant (1998) were cited many times as a challenge and cause for future change within the profession. The resultant restructuring and
organizational changes were seen as having an impact on the entire health care system and on the delivery of patient care. The need for knowledge about the ‘business of providing health service’ outlined by Schafer (1991) was clearly stated by the experts. Physical therapists must possess a firm understanding of the big picture of health care and how their profession fits into the larger system. I was somewhat surprised with the force with which the leaders discussed this issue. They expressed their frustrations about the lack of knowledge that many physical therapists possess regarding how health care is delivered.

I think what has happened is that physical therapists are so damned focussed on their clients and their floor, they're not paying attention to what's going on in the hospital.... They need to get their eyes off the quads (muscle) and start focussing on what's going on big picture. (7-26)

The literature outlines, and the experts strongly stated, that system understanding is mandatory if clinicians expect their practice to survive in the future competitive health care industry.

Future changes in the environment proposed in the literature were loudly echoed by the opinion leaders in this research study. Beggs and Sumsion (1997) and Towle (1998) cited changes affecting the system, including advanced technology, increasing consumerism, and an emphasis on effectiveness and efficiency. These environmental issues of the future were also discussed by the experts. Of specific interest, the leaders collectively mentioned that the changes towards evidence-based practice and clinical research will have a major effect on physical therapists. The education movement from a Bachelor to a Master’s degree in Physical Therapy is another example of future forces for change within the profession. These issues also clearly emerged in the literature (Carpenter, 1995, Lopopolo, 1997 and Towle, 1998). Environmental health care changes affecting on the future of physical therapy were addressed by both the literature and the interview experts.

The research findings of the opinion leaders were consistent with multiple future role changes for public sector physical therapists. These changes to the traditional role of the
clinician were described in detail in Chapter 4. Overall, the change to an independent practitioner was the primary role change outlined by the experts. New ways of practicing, including the consultant role, clinical expert role and leadership role were further cited and emphasized by the opinion leaders. The literature also states that physical therapists will have new domains of practice and new roles within the public sector. Carpenter (1996), notes the shift in emphasis from the ‘hands-on’ role to a ‘non-hands-on’ educator, facilitator and resource role. Schleifer-Taylor’s (1995) and Karp’s (1992) studies also concur that the profession’s role is changing towards a more specialized health care delivery that needs leaders. Just as the physical therapy leaders in the literature predict, the research experts agree that role changes are imminent for physical therapists in the immediate future. The changing role towards self-governance was not well addressed in the literature. The Canadian Physiotherapy Association (1999), was the only source to discuss the future needs of physical therapists to be a self-governing profession. In contrast, every opinion leader in this research study strongly expressed concerns about the profession’s need for business administration and self-governance.

Expert discussion during the interviews generally supported the literature with respect to the skills and behaviours that physical therapists will need in the future. Brobst et. al. (1995), suggest that health care professionals will need to acquire new skills to make them effective caregivers in the coming century’s new environment. Continuing professional education literature states that there is a rising need to match staff skills to the new tasks necessary in health care (Towle, 1998). The experts in this research study also emphasized that physical therapists will need to possess different knowledge and skills from those they currently have.
The new roles and subsequent new competencies needed were keenly discussed by the opinion leaders including:

Another challenge is physiotherapists identifying how we're going to meet these roles. Do we have the knowledge, the skills, the energy, the resources... to be able to function in this health care organization? Once we've identified them and where we are (then we need to determine) where do we need to be, and how to fill that gap? It's not just looking at our clinical practice; we're very strong clinical practitioners, but it's more than that because of our role changes. (4-7)

The most significant finding from the opinion leaders is that these new abilities must be non-clinical/ non-patient care skills and behaviours. Experts used these exact words to describe the future, and purposely pointed out that it is this category of new skills that clinicians will require. Examples provided by the leaders are outlined in Chapter 4 and include: communication skills, the ability to work well in teams, computer and business administration skills, and strong professional skills. The literature, however, did not directly state that the future will demand this category of non-clinical skills.

Authors appear to value some facets of physical therapy skills and behaviours more than others. The clinical care technical skills and the conceptual skills of judgement and decision-making are the competencies that have been given top priority, while attention to interpersonal or professional skills has not been well substantiated. At best, the manuals, journals, and related literature address these abilities indirectly or incompletely. Authors such as Carpenter (1995) and Schleifer-Taylor (1995) do suggest that physical therapists need to be more involved in political lobbying, marketing and professional image building. Lopopolo (1997) noted that physical therapy management and staff need to have mechanisms to retain their professional identity while working in an environment where role boundaries are blurring. The only authors who cite more of these non-clinical skills are the Canadian Physiotherapy Association (1999). Experts in this research study strongly recommend that physical therapists need CPE on interpersonal, professional and self-governance skills.

The solutions to decrease educational need gaps, proposed by the opinion leaders in this study, reinforced many of the suggestions that emerged from the literature review.
Experts agreed with The College of Physiotherapists of Ontario (1996) who stated that physical therapists should engage in life-long learning. They also support Belanger (1997) of the Canadian Physiotherapy Association, who encourages clinicians to update and upgrade their knowledge and skills. As presented in Chapter 4, the experts furthermore suggest that focus needs to be placed on marketing and public relations on behalf of the profession. While the literature does not directly address the novice practitioner, the leaders discussed how this group of new clinicians may need particular attention and specific skill training. Both the literature and the research study experts support CPE as critical for all clinicians to stay up-to-date with changes in health care. Opinion leaders offered many challenges or barriers to the proposed solutions for ways to address future needed skills and behaviours. Recall that the experts expressed serious concern about practicing clinicians' perceived valuing or need for non-patient care continuing education. They believe that physical therapists may prioritize clinical care courses ahead of topics that address interpersonal or professional issues. These potential barriers cited by the research experts are in direct agreement with the literature. Tassone and Speechley's 1997 study concluded that the ultimate success of a CPE activity was largely determined by the physical therapists' evaluation of its pertinence to their professional practice. The challenge of determining real needs versus perceived needs is well described by Tracey et. al. (1997) and Towle (1998). CPE literature and the opinion leaders suggest that there is a lack of correlation between perceived and actual learning needs. The major challenge, therefore, is that physical therapists, who perceive non-clinical continuing education as less important than clinical courses, will not ultimately learn the needed skills for the future.

5.3 Practicing Clinician Focus Groups

Practicing clinicians in the public sector are very aware that their profession and professional roles are changing. As the literature states, physical therapists know that they will need to identify and acquire new skills and behaviours to survive and excel in the new health care environment. Practicing public sector and community physical
therapists, who were previous participants in the University of Toronto Department of Physical Therapy's Continuing Education programs, comprised the two focus groups. All participants were encouraged to share their thoughts about the current needs of physical therapists, and to project what changes in their practice they will need to make to meet the challenges of the future. Please see Appendices F and G for the focus group guides. Although the focus group participants cover a wide variety of experiences and locations of practice, their comments and suggestions were quite consistent, both with each other and the literature.

Physical therapists, who were participants in this research study, clearly acknowledge the large impact that changes to the health care system and to the organizational structures are having on their profession. Just as literature from Beggs and Sumsion (1997) and Towle (1998) states, public sector restructuring and the shifting focus to community care are causing changes to the traditional role of physical therapists. Focus group participants in particular discussed the major changes that program management has instigated. They appeared to be slightly overwhelmed at the speed with which these changes are being felt. Many physical therapists suggested that the loss of profession-specific leadership is the largest challenge facing the profession. They noted that they need to provide their own leadership and management now, from within the clinical staff. This has resulted in feelings of isolation and fear that the profession has no collective strength or power. Overall, the focus group participants agreed with Carpenter (1995) and appeared concerned that the profession, and specifically they themselves, may be ill-prepared for the radical changes in health care.

(Physical therapists) are drawn into these new roles and it's not always clear whether they have the skill or the desire to do that particular thing; now (with program management) it seems a little bit more arbitrary as to when things get allocated, whether you're called to do something you really don't want to do, by necessity or by actual skill. (Maybe) you'd just rather work with patients and that is where your real skill lies. (8-5)
Focus group clinicians appeared to understand that there is a paradigm shift occurring in the profession of physical therapy. Practicing clinicians are no longer responsible for the sole provision of physical therapy services and also are expected to take on many more non-clinical roles within the public sector. The changing perspective towards evidence-based practice, effective marketing, clinical research and a consultant model of care outlined by the Canadian Physiotherapy Association (1999), Schleifer-Taylor (1995) and Carpenter (1996), were repeatedly emphasized by the physical therapists. Community based clinicians stated that they have already been practicing as independent practitioners and expect that the future will further expand this role. Physical therapists working in hospitals or institutions suggested that health care has become a business and not a service for the public. Just as Schafer (1991) concludes, the profession needs to understand the business of providing care if it is to be competitive with the rest of the health care industry. Practicing clinicians support the literature in that they will have to participate in the bidding for resources. They acknowledge that they will need strong communication and marketing skills in order to ‘sell’ the profession and help it to be more credible.

Many of the skills and behaviours identified in the literature and in the expert interviews were also cited by the focus group physical therapists. New competencies in computer skills, expert clinical skills, the ability to work effectively in teams and the ability to delegate and partner with other health care professionals were all mentioned during the focus group discussions. New graduate mentoring was also suggested as needed for the future due to the loss of physical therapy departments. During both of the focus groups, there appeared to be significant emotions that participants needed to express. The clinicians reported feeling frustrated that the professional associations and the regulatory college are not providing them with the support that they need. Aligned closely with Lopopolo’s 1997 study, physical therapists intensely state that they need better mechanisms to retain their professional identity. They do not have confidence in their role on the health care team or see the value in the unique skills that they offer to their patients/clients. Increased workloads and caseloads were continually reported to be
causing much stress as therapists try to balance all of the new roles and responsibilities. Finally, concerns regarding other health care professionals' limited interest or knowledge about the physical therapy profession was passionately shared in the focus groups.

Practicing clinicians strongly reinforced the views of the opinion leaders and the literature that they would prioritize clinical courses over non-patient care related continuing education. As clearly outlined in Chapter 4, physical therapists' perceived needs about the importance of interpersonal or professional skills may not translate into participation in CPE that addresses these topics. Carpenter (1996) and the focus group respondents agree that physical therapists' attention tends to be focused on direct patient care, and not on the larger health care picture or the non-clinical skills and behaviours. The literature and the focus groups in this research study present some consistent themes regarding the continuing education needs of physical therapists for the future.

5.4 Gap Analysis - Differences between Interviews and Focus Groups

Analysis of the interview and focus group data showed interesting differences or gaps between what the experts and the practicing clinicians think that physical therapists will need for the future. Although similarities were evident, and have been presented above in this chapter, the differences between these two groups provide valuable information with respect to continuing education. Gap analysis data can be used as part of an educational needs assessment or combined with environmental scanning data for a more complete approach to strategic planning (Mann and Chaytor, 1992, and Morcol and McLaughlin, 1990). The evolution of physical therapy for the future can therefore be the result of conscious purposeful development rather than a series of reactions to external forces (Carpenter, 1996). Practicing clinicians in the research focus groups present a different view of what physical therapists will need from what the literature and research experts offered.
Practicing physical therapists do not appear to see the importance or necessity of increasing their knowledge about the health care system or the big picture of care delivery. They do acknowledge that changes within the system, and with funding to the public sector, are having an impact on their practice. It would appear that clinicians are primarily focused on the day-to-day patient care, and not on the larger context of the direction of health care. Repeatedly, when asked to comment on challenges or role changes for the profession of physical therapy, many focus group participants would instead answer from the patient or client’s perspective. They gave examples of early discharges, equipment deficits and family concerns regarding the amount or quality of physical therapy that patients receive. The focus group moderator had to frequently cue them to respond about the ultimate effects that these issues have on themselves as physical therapy professionals. The clinicians seemed to struggle to identify or describe the impact on the profession as a whole. Physical therapists’ focus clearly was on the patient and on the continuity of clinical care. In contrast, both the literature and the opinion leaders emphasized that physical therapists need to have a much broader vision of the entire health care system. Only then will clinicians be able to accurately understand the changes to the delivery of patient care and how their role fits into the organization. Health care system knowledge and its’ importance is the first of the gaps or differences identified in this research study.

Practicing physical therapists believe that they will have increased responsibilities for leadership and self-governance within the public sector. There is however, a strong feeling of lack of authority and a sense of disempowerment that is accompanying these role changes. Clinicians are very concerned that the new positions, while holding more responsibilities, do not actually carry much power to implement changes. Many leadership positions are seen as professional only and not organizationally backed to create change within the field of physical therapy. Staffing, role changes, delivery of care and working with support personnel were cited as areas where physical therapy leaders do not have the power to modify existing structures. Focus group participants expressed their frustrations with this and noted that this has resulted in many staff
resisting adopting the new roles. New skills and behaviours that are needed are therefore viewed as slightly redundant or not being utilized to the full extent. Interview experts and the literature strongly recommend that physical therapists will increasingly require skills in leadership and self-governance. Until practicing physical therapists see the importance or the empowerment of these roles, they may oppose any efforts to expand their skill sets.

Differences or gaps were also identified in the area of interpersonal skills for the future. Opinion leaders and the literature both suggest that physical therapists will need to develop these skills and behaviours to be successful in the public sector. Interpersonal skills of education and the delegation of tasks were cited as needed competencies in the future with the changing health care team. What was interesting to note was the difference in importance that the expert interviewees and the focus groups participants placed on these skills. Physical therapy leaders emphasized that partnering with other members of the expanded team will be critical in the immediate future. Clinicians will need to develop new working relationships with other health care professionals, and this may include complementary or alternative therapies. During the focus groups, the practicing physical therapists seemed to focus more on the future challenges of delegating and supervising the increasing numbers of support personnel. They discussed the skills and behaviours needed to help them to integrate staff including physiotherapy assistants into practice. This issue appeared to be very important to the clinicians and much time during the focus groups was devoted to discussion about these needed interpersonal skills. Although the experts did mention educating and delegating skills, the primary emphasis during the interviews was on partnering and developing new relationships with other health care team members.

Varying priorities and understandings were apparent about the role that the individual physical therapist could play with respect to marketing or advocating for the profession. Marketing skills were cited by the experts and the literature as one of the most significantly needed areas for development in practicing clinicians. Focus group
participants appear to be very unclear about how, and indeed if, they should be selling or advocating on behalf of the physical therapy profession. They expressed concerns about how the average physical therapist could market the entire profession, and questioned whether only the leaders should engage in these activities. One of the practicing clinicians stated:

I feel that my strengths are with people and doing what I do. What I can never reconcile is the big gaps between what I do now and marketing or helping people to understand the role of the physiotherapist. (9-24)

Physical therapists acknowledge that the profession needs to market itself to the public and the health care system. Gaps are obvious between the practicing clinicians and the experts about the prioritization of some of the skills and behaviours that are cited in the literature.

Overwhelmingly, the most evident gap noted was regarding physical therapists’ needs from the Continuing Education Committee. Collectively, the focus group participants offer that they will need many new non-clinical skills and behaviours for the future. They agree with the opinion leaders and the literature that they will need skills in: communication, teamwork, professional identity, strategic planning and workload management. The clinicians offer examples of situations where they will require increased knowledge in these areas that will allow them to change their role into that of an independent practitioner. The large gap occurs when asked what they will need from the Continuing Education Committee. Immediately the emphasis returns to a purely clinical focus. Basically disregarding the discussions they were having about future challenges and role changes in the profession, they start to suggest many clinical courses that they would like to have offered by the University. It was extremely apparent that when it comes to CPE, physical therapists still perceive that they need more clinical skills and knowledge. Focus group participants clearly prioritize clinical courses over non-clinical continuing education activities. When asked directly if they would attend sessions that address the non-patient care skills that they had identified as needed for the
future, negative responses included:

Even though we're sitting here round the table saying non-clinical courses are important, I'm not gonna go spend five hundred dollars to go to a course like that; it's just not gonna happen. (8-21)

It would seem that practicing physical therapists do not view CPE as fulfilling any role other than clinical training. Gaps exist between what the literature and the experts recommend, and what the practicing clinicians perceive as needed for their continuing professional education.

5.5 Summary

Throughout the past two chapters the findings from this research study have been presented and analyzed. The collective input from both physical therapy opinion leaders and practicing clinicians have provided valuable insight into the future of the profession of physical therapy. In the final chapter a summary of the major outcomes of the study within the context of answering the research questions will be presented. Finally, the implications of the findings and recommendations for further research will be addressed.
Chapter 6: Conclusion

To achieve its greatest potential, continuing education must fulfill the promise of its name and be truly continuing – not casual, sporadic, or opportunistic. This fact means essentially that it must be self-directed. Each professional must be the ultimate monitor of his or her own learning, controlling the stable or shifting design of its’ continuity. (Houle, 1980, p. 13)

6.1 Introduction

This final chapter provides conclusions and implications from the research. I review both the purpose of the study and the study design and methodology. I then present summaries of the data that were presented in detail in Chapter 4. These summaries are provided as answers to the research questions. Implications and conclusions of the research are then presented. In closing, I offer recommendations for future research and my final comments.

6.2 The Purpose of the Study

The purpose of this study was to conduct an environmental scan/needs assessment of postgraduate physical therapists to identify the future needed skills and behaviours that can be met through educational interventions.

6.3 Summary of the Study

This research investigated data obtained from three sources: 1) environmental scan using artifacts, including a literature review and review of documents, 2) environmental scan using interviews with experts in the field of physical therapy, and 3) needs assessment using focus groups of practicing public sector and community physical therapists.
Interviews with seven physical therapy opinion leaders were strictly confidential, open-ended, semi-structured and represented all aspects of the public sector. The two focus groups were moderated by a trained external interviewer and also consisted of open-ended semi-structured questions. The researcher’s intention was to collect participants’ perspectives into the future directions of the profession of physical therapy. The data and direct quotations from the interviews make it clear that the researcher and focus group moderator succeeded in developing candor and open rapport. Data from all three sources were then analyzed according to the methods outlined by Miles and Huberman (1984) and a qualitative gap analysis was conducted.

6.4 The Research Questions and Answers

1) What are the biggest challenges facing physical therapists in the next 5 years?

Experts and practicing clinicians acknowledge that the profession of physical therapy is facing numerous challenges in the immediate future. The traditional domains of practice are rapidly changing and there is an increasing emphasis on research, evaluation and other non-patient care related activities. This role redesign includes a shift towards a consultant model of care, with a focus on providing evidence to support physical therapy practices. Public sector clinicians will need defined goals, strategic plans and clear visions of the profession’s future directions to help them to develop a strong professional identity. Intra-professional support and a positive self-image will be critical to the future strength of the profession. Loss of profession-specific leadership has led to an intense need for physical therapy leaders. Without a direct voice to the organization, new roles may be formed that have no ultimate power to create change within the profession, and leadership gaps are complicated by the fact that many clinicians do not have the skills or the desire to be leaders for the profession.
Changes in health care delivery, economics, resources and the organizational structure of the public sector, are challenges that all physical therapists will face in the future. Cutbacks and decreased funding have resulted in a reduction of physical therapy positions and an increase in the number of support personnel. New partnerships are therefore needed to develop effective working relationships with the quickly changing health care teams. Organizations are focused on eliminating the duplication of services and are intensely restructuring their care delivery. Organizational charts and program management changes have a strong impact on the provision of physical therapy, and clinicians are challenged to continue to practice with a large loss of direct resources. Individually and collectively, physical therapists must self-govern and represent the profession. Involvement in organizational decision-making and increased health care system knowledge are vital for the future success of physical therapists. The many challenges facing the profession are also potential opportunities for change and growth.

2) *What will be the changes to the role of physical therapists in the public sector in the year 2005?*

Physical therapists' traditional roles will be changed to meet the new needs of the health care system and the new demands of health care professionals. Clinicians will be working as independent practitioners in the public sector. This new way of practicing includes many role changes that all physical therapists will need to meet the future challenges in the profession. Clinicians will be required to function as consultants with their patients and the rest of the health care team. Due to program management and other structural changes, physical therapists will need to be leaders within their organization and also within their own profession. Self-governance and business administration activities is a critical role change, necessary with the reduction of departmental directors. The shift to evidence-based practice and clinical research has increased the need for practicing clinicians to work as researchers in the public sector. Physical therapists must be strong advocates of the benefits and roles of the profession. Increased competition
between the health care professions has resulted in the need to market or sell the profession of physical therapy to the organization and to the public. All clinicians must be excellent educators and effective partners or delegators of care. Finally, physical therapists will need to be clinical experts to work in the new specialized programs and services in the public sector.

3) *What are causes or reasons for these changes to the role and direction of physical therapy?*

Multiple forces for change are having an impact on the role and direction of the profession of physical therapy. Clinicians are working in a new health care environment that continues to be restructured. Organizations have drastically changed their health care delivery structures and funding has been reduced throughout the public system. Human resource shortages and competition from the private sector further force change on the health care professions. The general public are now better educated about health care, and patients are more actively participating in decisions regarding their own care. Physical therapists' roles within the public sector are rapidly shifting, and the emergence of Master's trained clinicians will continue to effect change. The external pressures have led physical therapists to develop internal forces for change and new attitudes about the profession. Family structural changes, such as dual income couples, have resulted in different professional demographics. Practicing clinicians are expected to form new working relationships and partnerships with the different members of the health care team. Institutions are exerting new demands and pressures on all of the professions towards excellence in patient care, research and academic involvement. Physical therapists will need to remain strong as a united profession to balance all of these forces for change.
4) Given the new directions of the profession of physical therapy, what skills and behaviours will physical therapists need to meet these challenges in the future?

Physical therapists working in the public sector will need well-developed skills and new behaviours to remain a primary member of the modern health care team. There is a high positive correlation between the role changes presented in answer to research question 2 and the skills and behaviours identified as needed for the future. Overall, physical therapists will need to maintain their technical skills, including their excellent clinical skills. Furthermore, they will need to maintain their conceptual skills and analytical skills of problem solving. Due to the large numbers of challenges, changes to their role, and forces for change within the profession, physical therapists will need to develop many new skills and behaviours in the immediate future. Since the future clinical role will be as an independent practitioner, physical therapists will need to further develop technical skills, including expert clinical skills and computer or technology skills. Critical thinking, strategic planning and self-reflection are among the conceptual skills that will need to be further developed, to ensure that physical therapists can function as leaders and self-governors.

Non-clinical skills and behaviours are the most critical area that physical therapists need to develop for the future. Due to the vast number of role changes facing physical therapy, all clinicians will need to learn to excel in new areas of professional practice. Interpersonal skills such as communication, team work, leadership and assertiveness skills will all be needed by clinicians working in the new health care environment. The new physical therapist will need to effectively advocate, educate and delegate with other members of the health care team. Professional skills will need to be developed and all clinicians will need to have a strong professional identity. Skills associated with the new consulting role will be required throughout the public sector. Intra-professional support will be increasingly necessary as physical therapists further develop their professional deportment. With institutional emphasis on academic endeavors, research knowledge and skills will need to be further developed for all physical therapists. Self-governance
and business administration skills (such as marketing, finance and evaluation) are much needed in the profession, as practicing clinicians will be taking on new roles within the organization. Knowledge of the health care system and how physical therapy fits into the big picture of the organization, are among the many new non-clinical areas that physical therapists will need to develop, in order to meet the challenges in the future.

5) What should the Continuing Education Committee offer to meet the needs of physical therapists in the future?

Continuing professional education for physical therapists should focus its efforts on addressing the educational need gaps identified. The solutions need to link back to the challenges, role change, causes and future needed skills and behaviours of physical therapists in the public sector. Continuing education will play an important role in the development of the changing professional. CPE will need to encourage lifelong learning, including utilizing self-reflective practice and self-directed on-line learning. The primary focus of future CPE for physical therapists should be on the non-clinical or non-patient care areas of practice, as clinicians will need to develop their skills and behaviours in a large range of non-clinical areas in order to successfully work in the new roles demanded from the changing health care system. CPE should particularly place attention on skills of leadership, communication, teamwork, professionalism, computers and business administration. Opportunities need to be provided for physical therapists to develop their marketing skills and to learn how to practice using an evidence-based approach. CPE activities should offer clinicians the chance to increase their knowledge of the health care system, the big picture of health care delivery and organizational politics. All of the non-clinical areas identified need to be applied specifically for practicing physical therapists so they can use these skills directly in their professional practice.
In terms of methodology, the Continuing Education Committee should offer courses that provide a multifaceted approach to learning. Non-clinical skills and behaviours should be combined with courses relating to clinical specialization. Upgrading programs should be available for clinicians who need or want to refresh their skills or update their knowledge on new advances in the profession. Mentoring programs should be developed and encouraged throughout the professional community. The CE Committee should partner with other professional bodies, offer Web sites with CPE information and assist in the development of journal and peer clubs. CPE will need to address the very specific and unique educational needs of novice practitioners to help them adapt to the new skills and behaviours required of them as practicing professionals. New graduates would benefit from further development of their ability to work in teams, participate in community events, achieve a strong professional identity and continue to be aware of changes in the health care system. The Continuing Education Committee and CPE have an opportunity to play a large role in helping physical therapists prepare for the changes in their profession.

6.5 Implications and Conclusions

Physical therapists across the public sector are facing immense changes, and practicing clinicians must adapt by learning new skills and behaviours to be proactive, and not reactive, to these changes. This research has revealed some valuable insights into the future needs of physical therapists in the public sector. Challenges, role changes and future directions of the profession have been discussed and put into context for continuing profession education provision. Solutions to decrease the educational need gaps have been suggested, and potential challenges or barriers to these ideas have been presented. The research findings offer many theoretical and practical implications.

As Houle has stated, “the primary responsibility for learning should rest on the individual” (1980, p. 305). It is therefore the individual physical therapists’
responsibility to identify and acquire the skills and behaviours that they need for their future practice. Therein lies the challenge. Until practicing clinicians perceive that they need to learn something new, they will not have the motivation or drive to acquire these skills and behaviours. Physical therapists in this study generally are aware of the changes and new roles implied in the future of their profession. They can recognize many of the skills and behaviours that will be necessary for practicing clinicians in the public sector. The very concerning gap is that they do not appear to translate this into a direct and immediate needs for their own learning. Although physical therapists acknowledge that they definitely need non-clinical skills, they continue to prioritize clinical continuing education as more important. They do not appear to perceive the relevance of learning these non-clinical skills for their new roles in the public sector, or to appreciate how the health care and organizational changes will affect them personally. They do not seem to understand why or how they will need to change from their traditional hands-on patient care role. Even more concerning is that some physical therapists appear to not want to change, and may directly oppose these future changes to their profession. These research findings are in agreement with the Canadian Physiotherapy Association (1999), whose study showed that clinical staff do not value the non-clinical skills. We are told by Tassone and Heck (1997), that the ultimate success of a CPE activity is the professional’s evaluation of its pertinence to practice. We can therefore assume that physical therapists, as a collective, will not attend or prioritize non-clinical continuing education activities.

The challenge for the entire health CPE field is to help to convert the unperceived needs of non-clinical skills and behaviours into immediately relevant perceived needs for learning. The experts in this research study appear to agree with the literature that physical therapists must develop new areas of expertise to survive and grow in the changing health care environment. Individual physical therapists need to take responsibility for their learning; however, CPE providers, opinion leaders and all the professional associations need to help clinicians to recognize the importance of these changes. Physical therapy leaders can play a critical role in helping to share their visions of the future and in providing clinicians with practical examples of why and how the
profession is forced to change. CPE can assist in educating the physical therapy community about the new directions and future needed skills and behaviours. When these educational needs are perceived by the individual physical therapist as important, only then will learning and change occur.

A simple review of the research data might suggest that the Continuing Education Committee offer two streams of courses: one for the clinical content and another for the professional issues. However, as the data also show, the perception of many practicing clinicians is that they would not attend courses that only address non-clinical issues. The optimal compromise may be to offer clinical CPE activities that include interpersonal, self-governance and professional skill training. Addressing these non-clinical skills within the clinical context would make them more relevant and practical for the clinicians. This hybrid of suggested CPE activities would actively endorse the true professional development of physical therapists. The CE Committee would then be accurately justified in changing its name to the Continuing Professional Development (CPD) Committee.

The co-ordination of all CPE activities is another challenge that must be addressed in the physical therapy community. A multitude of organizations currently offer CPE, including: the University, the College of Physiotherapists, many of the professional associations, the private sector and individual organizations or agencies. The obvious result is a lack of co-ordination, poor or competitive communication and a duplication of services. Brockett and Bauer (1998) and Karp (1992) both agree with the findings from this study that all CPE bodies need to link together with strategic goals and plans to collectively and effectively educate physical therapists for the future. To further this CPE co-ordination, practicing clinicians should be intimately involved in the process of setting CPE goals and directions. Involving the physical therapy community in addressing the educational needs for the future, would lead to an increased awareness of and motivation for participation in CPE activities. Ultimately, this may also lead to the further development of the physical therapy leaders of the future.
It is critical to address the issues of self-governance versus leadership in the profession of physical therapy, as both of these non-clinical areas were clearly cited as highly important future needed skills and behaviours. The profession must have strong leaders, with clearly communicated and shared visions of the future changes to the public sector roles. These leaders will be needed to help prepare and educate physical therapists in their new responsibilities. Each individual physical therapist does not need to be a leader - only those clinicians with the interest, skills and opportunities to act in a leadership role need to represent and actively lead their profession. In contrast, it is vital that every physical therapist develop self-governance skills and behaviours, to support the movement towards independent practice, consultant role change and program management structure. Each physical therapist will need to be able to advocate, market, and have the business administration skills to self-govern and follow the vision of the profession. Despite limited resources, physical therapists must make the time and effort to develop a pattern of lifelong-learning. The day-to-day behaviour and actual performance of practicing clinicians must be as an independent, competent professional.

Finally, it is interesting to note that although physical therapists will be independent practitioners in the public sector, they will continue to work within a structured system. This dichotomy is relevant to observe, since physical therapists will need to develop increased knowledge about the health care system and the organization as a whole in order to know how the system is run and where physical therapy fits into the organization and the health care team. Every physical therapist must be able to articulate clearly how the profession adds value to the system. With increasing competition from other health care disciplines and the private sector, the timing of the development of this health care knowledge and interest is most urgent.
6.6 Recommendations for Future Research

No one research study can hope to uncover all the future needs of practicing physical therapists. Multiple and varied studies are needed to develop a common understanding of the future directions and needs of the profession. To reveal other dimensions/ issues that physical therapists may face in the future, there are several areas of recommended further research.

- Future studies should be directed at comparing the educational learning needs of physical therapists to other health care professionals. This contrast may help to recognize and meaningfully evaluate the unique needs of the profession. As a result, continuing professional education may be planned and directed towards these specialized needs.

- Further research is needed to identify the skills sets necessary for physical therapists to act as consultants. If clinicians are to be successful in functioning as a consultant and an independent practitioner, they will need to have clearly defined this role.

- Future inquiry should be conducted to determine whether the CPE implications from this research are related to the educational needs in the undergraduate program. Should the skills and behaviours recommended in this study also be emphasized in the entry program? Would competencies such as lifelong-learning and professional deportment be more effectively learned during the initial stages of training?

- Studies need to explore whether self-directed learning may be an effective methodology to help physical therapists identify and develop new skills and behaviours to adapt to professional role changes. Further research may be needed into faculty development so that continuing educators have the skills to assist the practicing clinicians with self-directed learning.
• Future investigation should be directed at studying the physical therapy profession in other provinces and countries. Information and critical learning about other’s successes and challenges in the areas of leadership, self-governance, partnering or mentoring in the profession, may be useful for continuing education planning.

• Further research on the interpersonal and professional skills is needed to define further the behaviours associated with these skills. This may help the leaders in the discipline of physical therapy to substantiate to the clinicians the value associated with learning these new behaviours.

• Inquiry is needed to learn about physical therapists’ perspectives of partnering between the undergraduate and continuing education programs. Would practicing clinicians value or attend specific lectures or workshops in their interest areas that are currently offered for the undergraduates? Could joint sessions on teamwork, professionalism, leadership etc. be offered to both undergraduate and post-graduate physical therapists?

• Further investigation into potential solutions to decrease educational need gaps would be helpful to continuing professional education planners. Details on the implementation of these solutions may ensure that needs are being met in a timely fashion.

• As Houle has stated, “other opportunities or constraints exist at the core of every other profession, making each one unique” (1980, p. 304). Future inquiry is needed to further identify the barriers to continuing professional education for physical therapists. Specifically, it would be useful to study the barriers to participation in non-clinical continuing professional education. Problem solving with practicing clinicians may help to eliminate these barriers.
6.7 Final comments

People take turns being leaders in the profession, I've had my turn, I've done my thing and it's somebody else's turn now. And they can be gaining the information and the passion around the profession. (7-28)

Because you are always going to be a physiotherapist, you know, you're always going to be a physiotherapist. (3-26)

This research project provided me with a profound learning experience. My research interests, and indeed both my personal and professional goals have been forever changed. I have every intention of continuing to attempt to assist the profession of physical therapy with its development and I am hopeful that this study will add to the field of CPE in helping to identify the future needed skills and behaviours of the profession. This research has reinforced my strong belief that physical therapists will be challenged to learn and adapt to the new health care environment. Physical therapy is a valuable and highly educated profession that must be encouraged to succeed in a challenging and demanding health care future. I look forward to further research opportunities that will incorporate or further enhance the professional development of physical therapists.
References


Belanger, A. (1997). There are ‘continuing education alternatives’ to ‘alternative continuing education’ in physiotherapy: President’s report. *Physiotherapy Canada* 49(4); 249-252.


Queen’s University School of Rehabilitation Therapy. (1998). Professional development questionnaire.


University of Toronto Department of Physical Therapy. (March 1999). Target 2004 - Discussion Paper: Strategic directions to guide the Department of Physical Therapy through the U of T five year planning period.


Appendices
Driving Forces for Change

- Economic
- Educational
- Environmental

- Ethical
  - Current Skills and Behaviours
  - Educational Need/Gap
  - Future Skills and Behaviours

- Societal
- Political
- Technological

"What is"
"What should be"
Physical Therapy Continuing Professional Education

Dear

As health care delivery in Ontario is rapidly changing, physical therapists are challenged to identify the needed skills and behaviours for the future. My name is Lynne Sinclair and I am a graduate student at the Ontario Institute for Studies in Education at the University of Toronto in the Department of Adult Education. I am particularly interested in the needs of postgraduate physical therapists that can be met through educational interventions. Currently, I am completing the final requirement for obtaining my masters degree by completing a research project.

The purpose of my research is to conduct an environmental scan/ needs assessment of postgraduate physical therapists to identify the future needed skills and behaviours that can be met through educational interventions. This information will assist The University of Toronto Department of Physical Therapy’s Continuing Education Committee to provide educational activities that address the changing needs of the professional community. I would like you to participate in my research project. I will be conducting interviews/ focus groups to discuss your perceptions about future needs of physical therapists. It will require about one hour of your time. We will mutually agree upon the time and place for the dialogue. The content of the meetings will be strictly confidential. Your real name will not appear in the written paper which will be read and marked by two professors from the university, or in any published reports or oral presentations. A bound copy of the completed report will become part of the thesis collection at the Ontario Institute for Studies in Education at the University of Toronto.

If you agree to speak with me, you may withdraw from the study at any time for whatever reasons. Completion of the enclosed informed consent form is required. Although my conversation with you will be taped, within a year of completion of the project the tapes will be erased and the transcription will be destroyed. Possible benefits to your participation in this study include: the opportunity to share your perceptions on the profession of physical therapy, potential learning resulting from reflection, and the completed paper will be made available to you upon your request. I do not anticipate that your participation in this study will result in any associated risks.

Thank you for your time and commitment to the profession of physical therapy. I will call you to finalize the time and place for our interview or focus group in a few days.

Sincerely,

Lynne Sinclair
Tel. XXX-XXX-XXXX
l.sinclair@utoronto.ca
Appendix C

Interview Informed Consent

Physical Therapy Continuing Professional Education

CONSENT TO PARTICIPATE IN A STUDY TO IDENTIFY THE FUTURE NEEDED
SKILLS AND BEHAVIOURS OF POSTGRADUATE PHYSICAL THERAPISTS THAT CAN
BE MET THROUGH EDUCATIONAL INTERVENTIONS.

I ____________________________ agree to participate in a study to identify the
future needed skills and behaviours of postgraduate physical therapists that can be met through
educational interventions.

I understand that I will be asked to participate in an interview to discuss and share my perceptions
of the needs of physical therapists for the future.

I understand that my responses and participation in this study will be anonymous, and that I will
be identified by number or code only.

I understand that the interview will be taped by the researcher to assist with the analysis of the
information and that the tapes will be erased within a year of completion of the study.

I am aware that possible benefits to my participation in this study include: the opportunity to
share my perceptions on the profession of physical therapy, potential learning resulting from
reflection, and the completed paper will be made available upon my request. I am aware that my
participation in this study will not result in any anticipated risks.

I understand that I may withdraw from the study at any time.

I understand that my standing or status in the Department of Physical Therapy will not be affected
in any way by my participation in this study.

Name: ____________________________ (please print)

Signature: ________________________

Date: ____________________________
Appendix D
Focus Group Informed Consent

Physical Therapy Continuing Professional Education

CONSENT TO PARTICIPATE IN A STUDY TO IDENTIFY THE FUTURE NEEDED SKILLS AND BEHAVIOURS OF POSTGRADUATE PHYSICAL THERAPISTS THAT CAN BE MET THROUGH EDUCATIONAL INTERVENTIONS.

I __________________________ agree to participate in a study to identify the future needed skills and behaviours of postgraduate physical therapists that can be met through educational interventions.

I understand that I will be asked to participate in a focus group to discuss and share my perceptions of the needs of physical therapists for the future.

I understand that my responses and participation in this study will be anonymous, and that I will be identified by number or code only.

I understand that the focus group will be taped to assist with the analysis of the information and that the tapes will be erased within a year of completion of the study.

I am aware that possible benefits to my participation in this study include: the opportunity to share my perceptions on the profession of physical therapy, potential learning resulting from reflection, and the completed paper will be made available upon my request. I am aware that my participation in this study will not result in any anticipated risks.

I understand that I may withdraw from the study at any time.

I understand that my standing or status in the Department of Physical Therapy will not be affected in any way by my participation in this study.

Name: _______________________________(please print)
Signature: ___________________________ Date: ___________________________

Please answer/check the following demographic questions:

Female ______ Male ______ Age ______
Education (please list degrees and/or diplomas) ______________________________________

Years of physiotherapy practice ________ yrs
Currently working: Full-time ______ Part-time ______ Other ______
Primary job (Please check one only):
  Direct patient care ______ Administration ______
  Research ______ Teaching ______
  Other (please state) ____________________________________________________________
1) In your opinion, what do you see as physical therapists’ biggest challenge(s) in the next 5 years?

2) What changes (if any) do you see in the role of physical therapists in the public sector in the year 2005?

3) What are causes or reasons for these changes to the role and direction of physical therapy?

4) Given the new directions of the profession of physical therapy, what changes in their practice will physical therapists need make to meet these challenges in the future? (Probe: What skills and behaviours will be most important?)

5) Given all that we have discussed, what would our Continuing Education Committee need to offer to meet the needs of physical therapists in the future?

6) What advice would you give to new physical therapy graduates to best prepare them for the future changes to the profession?
| Appendix F  
| Focus Group Guide – Initial Version |

1. What do you see as physical therapists' biggest challenge(s) currently in the public sector?

2. What changes (if any) do you see in the role of physical therapists currently in the public sector?

3. What are causes or reasons for these changes to the role and direction of physical therapy?

4. Given the current changes to the profession of physical therapy, what changes in their practice will physical therapists need to make to meet these challenges in the future? (Probe: What skills and behaviours will be most important?)

5. Given all that we have discussed, what would our Continuing Education Committee need to offer to meet the needs of physical therapists in the future?
1. What do you see as physical therapists' biggest challenge(s) currently in the public sector?

2. What changes (if any) do you see in the role of physical therapists currently in the public sector?

3. What are causes or reasons for these changes to the role and direction of physical therapy?

4. Given the current changes to the profession of physical therapy, what changes in their practice will physical therapists need make to meet these challenges in the future? (Probe: What skills and behaviours will be most important?)

5. Given all that we have discussed, what would our Continuing Education Committee need to offer to meet the needs of physical therapists in the future?

6. If the Continuing Education Committee offered courses such as the ones that you have identified today, would you attend these activities? Why or why not?