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Assessing the Relative Perspective of the Regulation of Kinesiologists
Among other Health Professionals

By
Kerry Braniff, HBA

Supervising Professor
William Montelpare, Ph D

September 23, 2008

Master of Public Health
Lakehead University



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Assessing the Relative Perspective of the Regulation of Kinesiologists Among other Health Professionals

Abstract

Kinesiology as a profession is in a state of transition in the Province of Ontario, formerly a self governed profession it has recently been designated a regulated profession under the Regulated Health Professions Act (1991). The acceptance and utilization of kinesiology by stakeholder communities is essential to the future viability of the profession. An 18 question computer generated survey was used to collect information to identify perceptions about kinesiology within the existing health care sector. A SWOT (strengths, weaknesses, opportunities and threats) framework was used to analyze the data. The data indicated that as a regulated profession kinesiology provides a unique expertise adding to client and patient care and is a needed partner within the multidisciplinary health environment. The data also indicated that, despite the need for the profession to clearly define, delineate, and promote its scope of practice to professionals and the public, there are increased opportunities that exist within the health care sector, particularly in chronic disease prevention. The profession is not considered a threat by existing key stakeholders.

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CHAPTER ONE

1.0 Introduction

Kinesiology as a profession is in a state of transition in the Province of Ontario. In April 2006 the Health Professions Regulatory Advisory Council (HPRAC) submitted a recommendation to the Minister of Health and Long Term Care to regulate kinesiology under the Regulated Health Professions Act (1991) (RHPA). In June, 2007 Bill 171 achieved royal assent within the Ontario Legislative Assembly, designating kinesiology as a regulated health profession. As a result of this legislation graduates of kinesiology programs may receive provincial certification and may be considered as part of the allied health professions' regulated services. Currently the RHPA provides a framework for regulating the scope of practice for 23 health professions including: physician and surgeons, chiropractors, massage therapists, occupational therapist, physiotherapists, nurses, and dietitians.

This recent legislative move enables highly trained and educated individuals with a distinct knowledge base to work within a health care system that is increasingly focused on healthy lifestyle and exercise (Malek et al., 2002; Miller & Berry, 2000). The opportunity will enable qualified graduates of kinesiology programs to work as regulated and certified kinesiologists providing the safe delivery of services associated with human movement (Shephard & Bonneau, 2003). Creating a regulated and certified kinesiologist will ensure that potential clients are protected by a well understood standard of practice or level of service increasing the quality of care provided and reducing the risk of harm to

the public (Malek et al., 2002; Ontario Kinesiology Association OKA₁, 2005; Springer & Clarkson, 2003).

Kinesiology is a popular university degree program with more than 7000 students enrolled across Canada. Currently the Canadian Council of University Physical Education and Kinesiology Administrators (CCUPEKA) provide accreditation to 17 programs across Canada. In Ontario there are more than 2000 graduates from kinesiology programs each year. The Ontario Kinesiology Association, Ontario's certification and regulatory body, estimates that there are more than 1400 certified members. Certified kinesiologists are trained to assess, prescribe and evaluate human movement and exercise. Bill 171 defines the scope of practice for kinesiology practitioners as, "The practice of kinesiology is the assessment of human movement and performance and its rehabilitation and management to maintain, rehabilitate or enhance movement and performance." (Bill 171, 2006, p.127). Kinesiologists work in a variety of settings that include: hospitals, long term care facilities, rehabilitation clinics, worksites, research centres, health and fitness facilities, private practices, insurance companies, assessment companies, and wellness centres (OKA₁, 2005).

1.1 Background

The lack of establishing kinesiology as a regulated health profession created several obstacles to the implementation and widespread dissemination of kinesiologists' services. The need for regulation and a better understanding of kinesiology was emphasized in the report titled, "*Regulation of Health Professions in Ontario: New Directions*", by HPRAC. The report was released in April 2006, following 14 months of

intense information gathering from public and stakeholder consultations, including OKA and other regulated health professions (HPRAC, 2006).

The Ontario Kinesiology Association has represented the kinesiology profession in the Province of Ontario for over 23 years. The Ontario Kinesiology Authority acts similar to a health professions college. The Authority ensures that those who apply for certification meet the required standards. The recertification process ensures that continuing education standards are met. The Authority maintains a professional code of ethics and it handles any complaints which may be brought against a certified practitioner by a member of the public (OKA₂, 2005).

The Ontario Kinesiology Association is a member of the Canadian Kinesiology Alliance (CKA). The CKA is a not-for-profit corporation that promotes the advancement of and advocates for the profession of kinesiology in Canada. Across Canada there are seven independent provincial kinesiology organizations: Alberta Kinesiology Association (AKA), British Columbia Association of Kinesiologists (BCAK), Fédération des kinésiologues du Québec (FKQ), New Brunswick Kinesiology Association (NBKA), Newfoundland and Labrador Kinesiology Association (NLKA), Ontario Kinesiology Association (OKA), and Saskatchewan Kinesiology Association (SKA) (CKA, 2006).

The Ontario Kinesiology Association currently has 1600 members of which 90% of these are graduates from universities in Ontario, while approximately 7% of the members have been trained in the United States or internationally (OKA₂, 2005). To

become certified by OKA, individuals must have a four year, honours, Bachelor of Science, undergraduate degree in kinesiology or a related discipline. Core competencies in kinesiology programs must include, human anatomy, physiology, biomechanics, motor control, and learning and psychomotor behaviour, be practicing in the field of kinesiology, and have their applications reviewed and approved by the Board of Directors of OKA.

Certified Kinesiologists measure and evaluate human movement using specified assessment and evaluation tools which include: fitness and physical testing, functional abilities testing, capabilities evaluations, and case specific workplace and home assessments. Certified Kinesiologists rehabilitate people following injury, and work to improve muscle function and/or performance through a variety of services. Prescriptive exercise, movement and cognitive rehabilitation techniques, ergonomics, assistive devices, and education are among the services provided by kinesiologists. However, kinesiologists do not diagnose and have an ethical obligation to work within their area of competence, acknowledge their limits of practice by way of self assessment, and act in the best interest of the client (OKA₂, 2005).

Currently graduates of programs in kinesiology/recreation/physical education report salaries on average of \$29,292.00 six months following graduation, and approximately \$38,910.00 two years after graduation (Council of Ontario Universities, 2005). These salary estimates are based on a report by The Council of Ontario University Graduate Survey published in 2005, which described employment

experiences, earnings and skill matching of students. The Ontario Kinesiology Association reported that because there is a lack of understanding of the scope of practice for kinesiologists there is difficulty for kinesiologists to obtain work in certain sectors of health care. This misunderstanding may influence the financial viability of private practice negatively. Kinesiologists make on average \$20,000.00 to \$30,000.00 per year less than their regulated counterparts, such as physio-therapists, occupational therapists, and chiropractors and may be able to provide similar services (OKA₂, 2005).

At present the kinesiologist's scope of practice covers a broad spectrum of services creating confusion within the cohort of potential consumers of kinesiology services. There are individuals within the fitness and health industry that refer to themselves as kinesiologists but these individuals are not necessarily graduates of a recognized university and do not adhere to the guidelines of practice outlined by OKA. When the term kinesiologist becomes exclusive through regulation, then those who wish to practice will have to obtain a university degree increasing enrollment in undergraduate academic programs and thereby increasing the number of individuals who may be eligible to write the appropriate qualifying examinations to become certified as a kinesiologists (OKA₂, 2005).

Currently, in many workplace settings kinesiologists are employed by a regulated health professional such as a physiotherapist or chiropractor. The perception is that the regulated health professional is more qualified than the kinesiologists. A major problem with this approach is that some regulated health professionals supervise the delivery of

kinesiology services even though they may not be trained in the scope of practice of kinesiology (Angyan, 2004; Connaughton et al., 2001). The regulated health professionals may be inadvertently increasing risk to patients since they assume responsibility for kinesiology services that are outside their scope of practice (Miller & Berry, 2000; OKA₂, 2005).

Currently, kinesiology as a practice is not regulated in other Canadian provinces, the United States or internationally. The British Columbia Association of Kinesiology and the Fédération des Kinésologues du Québec have submitted applications to have the profession regulated by their provincial governments (OKA₂, 2005). Currently Ontario is the only province where the practice of kinesiology has been regulated. Evaluating kinesiology as it transitions into regulation presents an opportunity to examine how the regulation will effect the kinesiology profession. Subsequently, the regulation within Ontario will allow for an opportunity to investigate how stakeholders in the health care environment and the public perceive the newly regulated profession and how this may affect kinesiologists' career viability.

CHAPTER TWO

2.0 Statement of Problem

Attitudes and behaviours toward exercise and physical activity in relation to health, wellness, and physical functional ability have become increasingly important over the last decade (A Report of the Surgeon General, 1996). Kinesiology as a practice could safely provide education, assessment, and management of human movement and performance to the population (Malek et al., 2002; Shepard & Bonneau, 2003). The practice of kinesiology, however, is not widely understood or utilized by the public or stakeholder communities (Knudson, 2005). As the field of kinesiology transitions from a self governed profession to a government regulated health profession in Ontario, the acceptance and utilization of kinesiology by key stakeholder communities is essential to the viability of the profession.

The purpose of this research is to use a survey to collect information from the stakeholder communities to identify perceptions about kinesiology within the existing health service delivery environment. The intent of collecting this data is to provide evidence to inform future program development and continuing education of the newly regulated profession of kinesiology. The purpose of this research is hypotheses generating. The survey will collect data on essential areas of interest associated with the viability of kinesiology as a regulated profession; including its strengths, weaknesses, opportunities, and threats.

2.1 Rationale

Changing trends in recognizing the importance of health, the role of obesity, physical activity, and awareness of eating habits as well as increased prevalence of health conditions such as heart disease, diabetes, arthritis, and lung disease emphasize the need for continued efforts to change the health attitudes and behaviours in Canada (OKA₂, 2005). Certified kinesiologists have the educational background to safely provide an important service to Canadians (Malek et al., 2002; Springer & Clarkson, 2003). Kinesiologists could fill a void in the current system of health care providing services that are safe and effective and that will address many of our health challenges (Miller & Berry, 2000; OKA₂, 2005; Shephard & Bonneau, 2003).

Despite the efforts by universities, CCUPEKA, OKA, and other national and provincial certification and regulatory bodies there remains confusion among stakeholders regarding the role, value, scope, and standards of practice of kinesiology. Because of this, stakeholders have not had a well understood standard of practice or level of service. This confusion manifests itself in a reduction of viable career opportunities for highly trained professionals (Higgins, 1989; Knudson, 2005; Mills, 1992; OKA₁, 2005).

A better understanding of stakeholder perceptions and attitudes concerning the newly regulated profession of kinesiology will help identify the attitudes and perceptions that exist among stakeholder communities regarding kinesiology and will provide insight

into the knowledge, competencies, skills, and abilities that stakeholders believe necessary for kinesiologists to have in order to ensure that the practice of kinesiology is well understood and best utilized. Understanding the attitudes and perceptions of stakeholders may also contribute to the development of a strategy to improve career utilization for kinesiology (Oppel et al., 2005). The stakeholder input is paramount as they represent colleagues, competitors, associates, and employers within the health care delivery environment (Dower et al., 2001). Many of the stakeholder communities will be members of established and successful regulated health care professions, their input is essential in understanding what strengths, weaknesses, opportunities, and threats may exist with the emergence of kinesiology as a regulated health profession.

2.2 Review of Literature

2.2.1 The Need for Educated Practitioners to Deliver Exercise Prescription and Interventions

Health sciences education is important in the delivery of safe exercise assessment and prescription, as reported by Malek, Nalbone, Berger and Coburn (2002). Using a questionnaire Malek et al. (2002) studied 115 fitness professionals in the United States and examined commonly used indicators of knowledge (academic training and experience) to actual knowledge in five key areas of fitness and health regarding special populations. The study found that the measure of years of experience was related to knowledge, but having a bachelor's degree in the field of exercise science was a strong

predictor of knowledge. Certification by the American College of Sports Medicine or the National Strength and Conditioning Association, as opposed to other certifications, was also a strong predictor of personal trainer's knowledge. The findings suggest the need for well educated and certified individuals administering health and fitness advice and recommends proper licensing requirements for those that assess, evaluate, and prescribe exercise (Malek et al., 2002). Springer and Clarkson (2003) identified an increased risk to the public if there is a lack of knowledge on behalf of those that deliver exercise advice. Springer and Clarkson (2003) identify two cases in which knowledgeable and fit individuals, one being a physician, were encouraged by personal trainers to perform exercise to overexertion. In both cases the individuals sought medical treatment post exercise for a potentially life threatening response to strenuous exercise. The fitness instructors had not heard of such conditions as it was not included in their certification process. The potential for risk of harm exists especially to those who are unknowledgeable and more vulnerable, such as specialty populations (Springer & Clarkson, 2003).

An educated and trained individual is not only able to provide safe exercise advice but is able to act as an independent specialized practitioner regarding physical movement and performance. Shephard and Bonneau (2003) found that individuals certified as Personal Fitness and Lifestyle Consultants (PFLC) can safely and appropriately supervise occupational fitness assessments without medical supervision as long as the participants are without cardiovascular disease. The evidence proved the average medical practitioner was not better able to prevent or treat an emergency than a

well trained PFLC. The insistence on medical supervision for assessments could preclude annual evaluation, increasing, not decreasing the risk to the worker (Shephard & Bonneau, 2003). Personal Fitness and Lifestyle Consultants must possess an undergraduate degree in Health, Fitness and Exercise Science and meet standards set by the Canadian Society of Exercise Physiology (CSEP, 2006). Miller and Berry (2000) have also identified the distinct knowledge base which educated exercise professionals possess that sets them apart from other allied health professionals. One hundred and seventeen participants were selected from three accredited four year bachelors degree health programs: nursing, physical therapy, and athletic training. The 117 participants completed a 40 question multiple choice test that was used to evaluate their health related physical fitness knowledge in five areas of study. Over a two year period from post test versus pre test results athletic training professionals scored significantly higher than nursing and physical therapy. On post test results both athletic training and physical therapy scored significantly higher on health related fitness knowledge than the nursing group (Miller & Berry, 2000).

Specific interventions, services and modalities are provided by specially trained certified kinesiologists and other professionals, the literature supporting the importance of these interventions, services and modalities with regard to patient and client care and the risk of harm to the public is vast, and some examples of the literature are listed below. Maximal aerobic capacity testing , submaximal aerobic capacity testing (Macko et al., 1997; Padmanabhan & Gulotta, 1997; Raven & Smith, 1984), maximum musculoskeletal and endurance testing (Schwimmer, 1979), therapeutic modalities (Rougier et al., 2004;

Harris-Love et al., 2004; Mori, 2004), exercise prescription (Faigenbaum et al., 2001; Meyer & Bucking, 2004), functional abilities/capacities evaluations (FAE/FCE) (Lemstra et al., 2004; Matheson et al., 2002), personal and attendant care assessment, return to work programming (Brox et al., 2005; Mayer et al., 2001), and ergonomics (Bovenzi et al., 2005; Dababneh et al., 2004) are all services that have a potential of risk to harm for the patient or client and need to be administered by individuals trained in the delivery of the specific service being provided.

2.2.2 Regulated Professionals have Specialized Training

Delivery of the specialized exercise assessment, testing, and prescription services require unique training, not all regulated professions are adequately trained to deliver such services. Connaughton, Weiler and Connaughton (2001) examined perceptions of Deans and Directors of medical education at 128 allopathic schools of medicine in the United States about the competence of graduating medical students to perform six skills related to exercise prescription. A seventeen item questionnaire was used and data collected from 72 out of 128 schools. While 58% of the respondents indicated their graduates were able to provide an evaluation for the purpose of approving the patient to begin an exercise program, only 10% felt their students could design an exercise prescription and 6 % reported their schools provided a core course addressing the American College of Sports Medicine Guidelines for Exercise Testing and Prescription (Connaughton et al., 2001). Angyan (2004) noted that although substantial evidence exists regarding the benefits of physical exercise, insufficient information about

the physiological effects and limits of exercise exist within the medical curriculum recommending the need to include the study of human movement by the medical practice (Angyan, 2004). The OKA₂ (2005) and HPRAC (2006) outlined the importance and benefits of kinesiology as a profession and the subsequent need of standardized educational, practical, and regulatory requirements (HPRAC, 2006; OKA₂, 2005).

2.2.3 Kinesiologist: Confusion Surrounding the Name and Service

The literature stating the importance of exercise and functional human movement and performance supports the need for highly trained individuals to administer the assessment, prescription, and evaluation of exercise. This does not preclude the issue that kinesiology is not a well understood practice. Clear identifying names and brands for kinesiology do not exist. As the term certified kinesiologist or kinesiologist are not yet clearly exclusive, many names exist within the professional milieu adding to the lack of identity and clarity. Exercise therapist, kinesiotherapist, biokineticist, human kineticist, exercise physiologist, and kinanthropologist are examples of names that provide kinesiology services (OKA₂, 2005). In articles and opinion papers Higgins (1989) and Mills (1992) identified the confusion in terminology used to describe the professions that include physical education, human movement, kinesiology, and exercise and sport science that have occurred historically and still occur within the public and professional environment (Higgins, 1989; Mills, 1992).

Knudson (2005) stated that researchers in the field of physical education historically conducted applied research on the cause and effect of their exercise and sport programs. As sport and athletics assimilated into the identity of physical education in the early twentieth century an academic legitimacy crisis in higher education began to appear. A trend and emphasis on research and the academic discipline of human movement appeared, as well as, an emergence of specialized sub-disciplines. The use of the term kinesiology was a result of this trend. The over specialization of the profession, budget cuts and lack of applied research contributed to debates about terminology, as well as, structure and body of knowledge in higher education (Knudson, 2005). Knudson (2005) reported that the quest for academic legitimacy, prestige, and tenure encouraged theoretical research focused on mechanisms of adaptation. In the absence of applied outcome oriented research documenting the effectiveness of services of the kinesiology professionals there has been an erosion of support for kinesiology undergraduate and graduate programs. Greater evidence on the effectiveness of kinesiology graduates and services on positive outcomes with clients would provide support at the political table when public health policies and programs are debated (Knudson, 2005). Knudson (2005) noted that although there has been an increase in the research reported in many kinesiology and allied health journals, problems remain in creating and transmitting knowledge that can be applied to professional practice. As evidence based practice becomes a cornerstone for other regulated health professions, kinesiology must evaluate the knowledge it generates and the transfer of that knowledge to professionals and the public. According to Knudson (2005) kinesiology must improve in three areas: First, kinesiology academics must improve in the acceptance and funding of applied research.

Secondly, they should increase the acceptance and funding of interdisciplinary research, as movement performance and injury are influenced by many factors and interdisciplinary research is likely to yield results more applicable to professional practice. Thirdly, the creation of integrated and accessible research summaries for professionals and the public are essential in bridging the theory to knowledge gap (Knudson, 2005).

During the recent process of recommendation by HPRAC, stakeholder submissions were invited and submitted to HPRAC regarding the regulation of kinesiology. In the report, *The Ontario Kinesiology Association's Response to Stakeholder Submissions Regarding Regulation Under the Regulated Health Professions Act* (OKA₁, 2005) and in HPRAC (2006) the lack of clarity and concern over the scope and standards of practice, education and role of kinesiology as an independent profession were clear among those regulated health professions that responded.

2.2.4 Emerging Health Care Professions: Kinesiology is not Alone

Complementary and alternative medicine (CAM) is generally defined as “a group of diverse medial and health care systems, practices, and products that are not presently considered to be part of conventional medicine.” (NCAM, 2008). Opperl et al. (2005) investigated the perceptions of physicians regarding CAM's in British Columbia. Opperl et al. (2005) investigated among other questions; what, if any alternative therapies were incorporated into the doctor's practice, and how often the doctor's felt patients had

received a benefit, beyond that which could have been perceived with conventional therapy. A random sample of 1008 BC specialists and 1043 BC general practitioners was used, with a response rate of 27 %. The alternative therapies which scored the highest frequency of use were: lifestyle change, diets and nutritional supplements, massage therapy, acupuncture, and chiropractic. The summary indicated that the physicians did not feel that information from alternative medicine therapists was accurate or reliable. Some physicians believed that their patients may benefit from some unspecified benefits, but also that patients can come into physical and financial harm if following the advice of the CAM practitioner. The study was completed in 2005, at that time dietitians, massage therapists, chiropractors, Chinese medicine practitioners, and acupuncturists were all regulated health professions in British Columbia. There was no distinction in the study between regulated and non regulated professions. Despite the fact that the highest “frequency of use” professions were regulated by the provincial government, the perceptions of the physicians and specialists were not supportive of the professions.

In a report titled, *Profiling the Professions: A Model for Evaluating Emerging Health Professions* (Dower et al., 2001), complementary and alternative medicine is considered one of the fastest growing parts of the health care sector in Canada and the US. Dower et al. (2001) established a list of criteria for evaluating emerging professions and identified themes and questions which would provide benchmarks for emerging professions. Dower et al. (2001) examined the issues surrounding emerging health care professions and what considerations, by stakeholders, needed to be made before supporting the movement of a new profession into main stream medicine.

2.2.5 Literature Review Summary

The literature suggests that there is a need for professionals who are educated and trained to administer exercise prescriptions and interventions. Although the understanding of whom exactly these individuals are, what they are called, and what qualifications they possess is not clear. Kinesiology is not alone as an emerging player within the health care system and emerging professions will be examined closely by the mainstream professionals. Emerging professions, whether regulated or not face tough challenges in overcoming the unfavourable and non supportive perceptions of mainstream professions. The need to identify the perceptions within designated stakeholder communities will hopefully bring clarity to the needs of program development, education, and subsequent research to ensure success and viability of the profession of kinesiology.

CHAPTER THREE

3.0 Research Design

This study used a non probabilistic design and a convenience sample. The data collection instrument was a computer self administered 18 question survey.

A SWOT analysis provided the conceptual framework for the instrument design.

According to Neutens and Rubinson (2002), non probability sampling is less expensive, less complicated, and is particularly useful in small studies or pilot investigations. As this study was exploratory in nature and was not funded, the non probabilistic design allowed for cost effective, expedient, and accurate communication and data collection. The computer generated nature of the survey ensured anonymity with data collection.

3.1 Instrument Design

The survey instrument was based on theory presented previously by Neutens and Rubinson (2002) and Montelpare (2007). The survey consisted of 18 questions.

Question types included, drop down menus, true /false, linkert type, and open ended questions. The delivery was by email using a computer self administered format.

The instrument design included eight demographic questions, three questions regarding the knowledge of regulation and frequency of use of certified kinesiologists.

The seven remaining questions were designed within the SWOT framework.

SWOT is an acronym that stands for strengths, weaknesses, opportunities, and threats. A SWOT analysis is a commonly used strategic tool that allows a business, entity or profession to examine its own internal strengths and weaknesses and the opportunities and threats that may exist within the external environment in which it must do business or perform. The SWOT framework has been used in health care research and analysis, as seen in these two studies: *Applicability of SWOT analysis for measuring quality of public oral health services as perceived by adult patients in Finland. Strengths, weaknesses, opportunities and threats* (Toivanen et al., 1999), and *A SWOT Analysis of the Field of Virtual Reality Rehabilitation and Therapy* (Rizzo & Joungyun, 2005). The SWOT analysis provided a framework to investigate the newly regulated kinesiology profession as it emerges into the well established environment of the mainstream health care sector.

3.2 Focus Group

A focus group was established to pre test the survey. The focus group included representatives of key stakeholder communities including a: chiropractor, physio therapist, massage therapist, rehabilitation consultant, certified kinesiologist, medical exercise specialist, and a personal trainer. An informal process of engagement occurred, explaining the purpose of the research and the proposed survey. After the researcher received approval from the Lakehead University Research Ethics Board the pretest survey, introduction, background and consent information were sent out to members of the focus group via email, with a request to fill out and return. All members of the focus

group responded. The general consensus was that, although the purpose of the survey was clear, the wording and language were at times cumbersome. The other key recommendation was to ensure that only one question was embedded in the wording of each question; no “double barreled” questions. The survey was a word document at that time and the focus group had difficulty completing it easily.

The survey was edited and a computer generated web format was used to deliver the questionnaire to respondents. The survey was then examined by the researcher’s thesis committee. Technical testing was done on the instrument to ensure that information was being translated correctly and efficiently.

3.3 Threats to Validity

Internal validity is defined as control for all influences between the groups being compared in the experiment, except for the experiment group (Neutons & Rubinson, 2001). Internal validity is very difficult to achieve outside of a controlled laboratory setting. As the study did not investigate causal relationships, only the rigor in which the study was conducted needed to be considered (Montelpare, 2007).

The internal validity of this study was threatened by the history of events surrounding the kinesiology profession. Knowledge and awareness regarding certain contentious issues may be more apparent to certain sample sub groups than would normally be the case and may have biased the response. This was reduced by having a

sample size large enough to include many varied professions having an effect on kinesiology. Consistency of method, procedure, and collection was maintained. Differential selection, defined as, bias in selecting individuals for group selection was threat to internal validity in this study. The individuals selected in this convenience sample are key stakeholders and thus may be more highly motivated, involved or interested in the topic being investigated.

External validity is defined as the researcher's ability to generalize the findings of the experiment or study (Neutons et al., 2001). The delivery of the survey during a time of transition of professional development may threaten external ecological validity as the survey cannot be generalized to other professions or time frames. The self administered approach increases the lack of control over the respondent and thus increases confounding variables also threatening validity.

3.4 Research Sample

Kinesiologists work in a variety of settings and within a broad professional network. There are currently twenty three regulated health professions in Ontario representing thousands of professionals. The health, fitness, and wellness sector also includes thousands of individuals. Practitioners, professionals, and associations that have been identified as colleagues, competitors, and employers of kinesiologists by OKA made up the sample.

The researcher attempted to sample a wide array of existing stakeholders. The initial task was to identify central responsibility of memberships and similar allied health professionals and then request support from them to distribute the questionnaire to their memberships and colleagues at large. The researcher attempted to saturate the stakeholder communities in order to get a comprehensive overview of the market.

The sample framework included 10 associations that represented members who were identified as key stakeholders by OKA. Each association executive or managing director was contacted. The professional associations include: Ontario Fitness Council, Canadian Society for Exercise Physiology, Ontario Chiropractic Association, Canadian Memorial Chiropractic College, Ontario Physio Therapy Association, Ontario Kinesiology Association, Ontario Society of Occupational Therapy, College of Massage Therapists of Ontario, Canadian Personal Trainers Network, and Can Fit Pro.

In addition to the associations, individuals were selected to be included in the sample. The individuals were either an active member of the 10 associations or other health professionals, they included: public health employees, dietitians, nurses, rehabilitation consultants, and individuals in the sport, fitness, and wellness industry. Participants were recruited via public email account found on the professional web sites and through the researcher's professional network.

Sixty two emails were sent out in total, including 10 association emails and 52 individuals representing the professions listed above. All those included in the sample were encouraged to send the email on to their colleagues or post on their respective

professional web sites. Five participants indicated that they would forward the survey on to their colleagues or post on their respective association web sites.

3.5 Independent and Dependent Variables

The independent variables in the survey consisted of the following: age, gender, and profession of participants. In addition, the survey was designed to collect information about the participant's workplace demographics, funding structure, and services provided.

The dependent variables were based on the survey responses regarding the strengths, weakness, opportunities, and threats surrounding the profession of kinesiology and the new regulation of the profession.

3.6 Survey Distribution and Collection

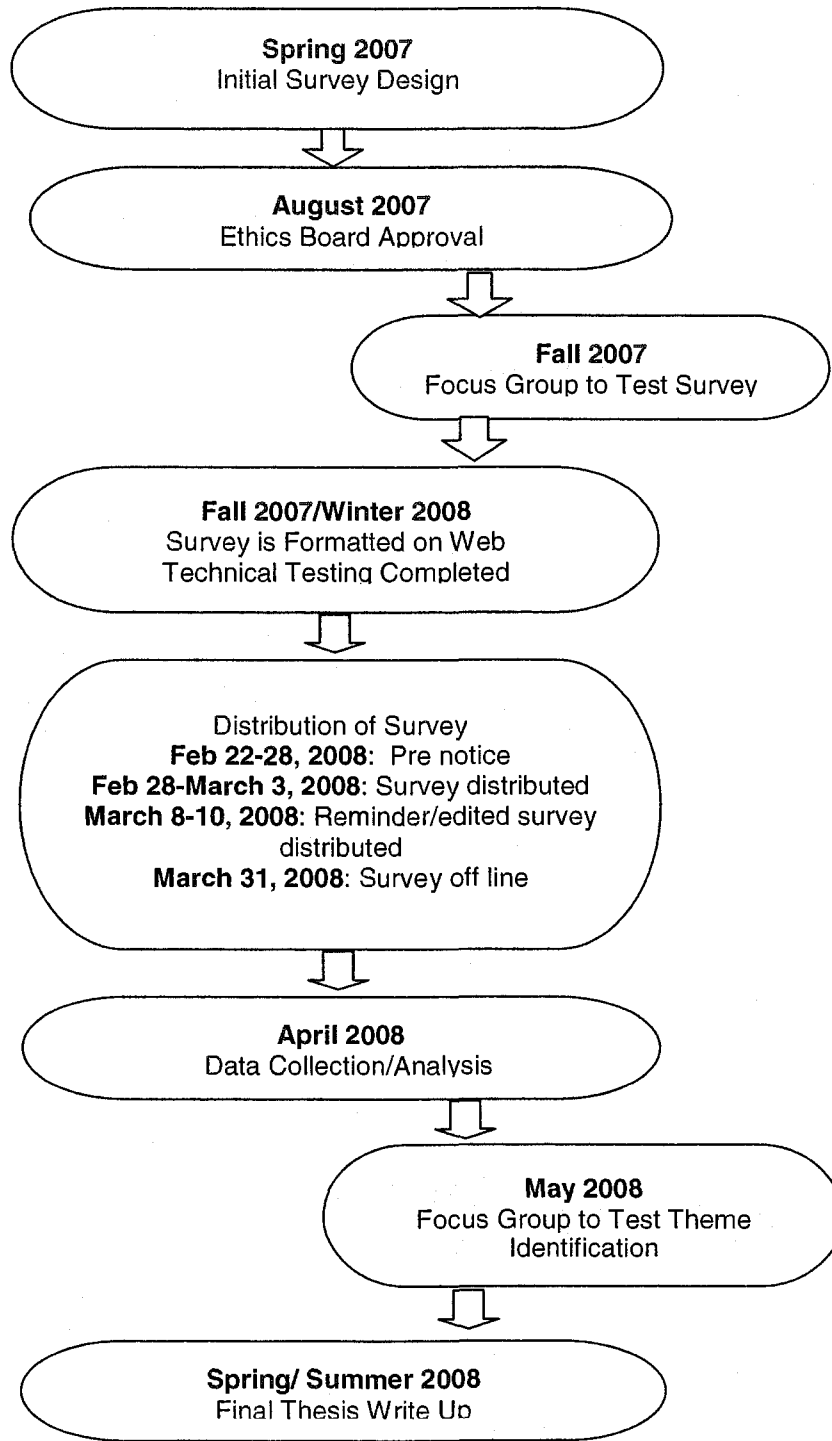
The eighteen question survey was distributed as a computer self administered questionnaire via the link <http://flash.lakeheadu.ca/~health/typeIII/main.html>. When using the link the participants were introduced to a home page with two "buttons" displayed. One button included an introduction and background of the current issues surrounding kinesiology, the purpose statement, and consent information. The second button included the survey to be submitted. Data distribution and collection was based on email to email correspondence. The survey was distributed and collected through Lakehead University. All participants were informed that their participation was

completely voluntary and that they may withdraw from the study at anytime. All answers were accepted and were completely anonymous. No individual would be identified in any report of the results and a summary of the results would be made available to the public upon request at its completion. The participants were also informed that all information from the study will be securely stored at Lakehead University for seven years

The survey distribution methodology was based on a review of internet survey practices from Kaplowitz, Hadlock and Levine (2004), Schaefer and Dillman (1998), and Dillman (2000).

CHAPTER FOUR

4.0 Schedule of Survey Delivery and Data Collection



Questions and comments were encouraged throughout the duration of the survey. Email correspondence, especially in the first two weeks of the survey distribution, was frequent. One respondent was unable to open the link, but this was quickly rectified. One questioned if the data analysis would be aggregated by profession. One respondent was concerned about anonymity. One commented on the need for clarification regarding the terminology of “regulated” and “certificated”. Two respondents directly and two indirectly challenged the wording in the introduction of the survey noting that the words “most” pertinent and “practicum” may represent a bias in favour of kinesiology. Although the content of the introduction was referenced to literature the controversial words were removed. When the survey was sent out in a reminder email the changes had been made and noted in the pre amble email. More than a dozen emails were received offering support.

The method of data distribution and collection used was appropriate and suited the objectives of this “first steps” type of research as it was inexpensive, administratively simple, secure, and anonymous method to reach a broad sample.

4.1 Data Organization and Analysis

Sixty two surveys were distributed, with 56 surveys returned, giving a response rate of 90 %. Each respondent was given an identifying number. One difficulty in the computer software created to collect the response data was that the program may not have

correctly captured responses to Question 11: How often do you work with Certified Kinesiologists.

The data were divided into two groupings, first the demographic information of the participants (questions 1 through 11) and secondly, data concerning the participant's perceptions of the newly regulated profession of kinesiology (questions 12 through 18).

4.1.1 Data Analysis: Demographic Information Questions 1 through 11

The demographic information included:

1. Age
2. Gender
3. Level of education
4. Current professional position
5. Years in current professional position
6. Type/name of workplace
7. Workplace funding
8. Population estimate where workplace is situated
9. Awareness of the regulation of kinesiology
10. Level of agreement of regulation of kinesiology
11. Frequency of use of certified kinesiologists.

A spread sheet was used to separate all answers for each question by respondent.

The respondents made up each of the 56 rows and the potential answers to questions 1 through 11 made up 32 columns on the spread sheet. The identification, separation, and tabulation of answers were done by the lead researcher. An external source was used to test that the answers were properly identified, separated, and assigned to the correct and corresponding respondent. This testing procedure was done on approximately 20% of the respondents' answers. The data check provided evidence that the organization of the

response was accurate. The data from the spread sheet were then summarized by question and transferred to 11 summary tables (see appendix 7).

4.1.2 Data Analysis: Open Ended Responses Questions 12 through 18

The following opened questions were used to determine the perceived SWOT of the respondents to the regulation of kinesiology.

12. What strengths do certified kinesiologists bring to the health care community?
13. What will be gained by introducing certified kinesiologists as a newly regulated health profession?
14. Will the certification of kinesiologists enhance the health care delivery of your organization?
15. Can you identify challenges that the certified kinesiologists may encounter as a newly regulated health profession?
16. What threat does the certification of kinesiologists pose to your health profession?
17. What new opportunities will be realized by the certified kinesiologists that may not have existed previously?
18. If you could provide advice to the collective group of certified kinesiologists what would you say?

All answers were initially identified, separated, and tabulated by respondent and given an identifying number. Six tables were designed to organize the open ended responses. Each table contained 56 individual rows representing the answers for each respondent (see appendix 8 to 13).

Themes were identified for each question using theme identification techniques by Ryan and Bernard (1994). Responses were read and re read a minimum of six times, by the lead researcher. The eyeballing or ocular scan methodology allowed for initial understanding of patterns in word repetition, phrase, and theme. Repeated words and

phrases were then identified and underlined. Repeated words and phrases were used to develop key themes. Each key theme for every question was then given an identifying colour code. The colour codes were collated using a cut and paste method. A summary table was designed for each of the six questions. The summary tables included all key themes identified for each question with all supporting data that had been sourced from the respondents' answers.

A focus group of five stakeholders was used to test the key words, phrases, and themes identified by the lead researcher. Each focus group member was asked to test one question (two focus group members tested question 12 and 13). The focus group was not used to test the answers for question fourteen and sixteen.

Each focus group member was given a table consisting of the question to be examined and all answers collected for that particular question. Each table contained 56 rows numbered to represent each respondent. The instructions were to independently identify key themes and report the themes in writing to the lead researcher. Each focus group member was either a stakeholder or had extensive experience in qualitative research, theme identification and/or technical writing. The themes identified by the focus group proved to be 100% accurate, identifying all themes outlined by the primary researcher.

The analyses of the demographic and qualitative data were not cross referenced. The response data were not associated with any identifying demographic parameter.

The data analysis used was appropriate for the research design. The intent of the study was to gather initial perceptions of stakeholders regarding the newly regulated profession of kinesiology. The tabulation of the nominal, and ordinal (linkert type) measures used to identify the demographic information was cost effective and accurate. The use of the lead researcher and a focus group to review the qualitative data collected ensured a comprehensive understanding of the material, accuracy, and cost effective. A computer software program was not used in the analysis of the data.

CHAPTER FIVE

5.0 Results

5.1 Age, Gender, Education

Sixty six percent of the sample was female, 44% male. Fifty seven percent of the sample were in their 30 and 40's, with the remaining participants equally divided between their 20's and 50's. Seventy five percent of the sample had attained either, a University 4 year, Professional or Masters Degree, out of those 35% had a Masters degree.

5.2 Profession

The current professional position of the sample is summarized in the chart below.

Table 1

| <i>Professional Makeup of Respondents by Percentage</i> | |
|---|----------------|
| <i>Profession</i> | <i>Percent</i> |
| Sport/fitness Industry | 17% |
| Public Health | 15% |
| Registered Dietitian | 13% |
| Certified Kinesiologist | 10% |
| Professor/Academic | 10% |
| Dr of Chiropractic | 10% |
| Registered Nurse | 7% |
| Physio Therapist | 5% |
| Registered Massage Therapist | 3% |
| Dr of Acupuncture | 2% |
| Dr of Naturopathic Medicine | 2% |
| Other | 2% |

Fifty two percent were regulated professionals, 10% of these were certified kinesiologists. Professors/ academics, fitness/sport industry workers, public health workers, health promoters, and managers made up the majority of the remaining professions. Fifty five percent had been in their current position less than 10 years, 28% had been in the current position between 11 and 20 years.

5.3 Workplace

The type of workplace setting represented by the respondents included professionals in public health (17%), private practice (13%), and the fitness/sport industry (10%). The workplace funding structure and population size supporting workplace are outlined below.

Table 2

Funding Structure of Respondents Workplace by Percentage

| Funding Structure | Percent |
|-------------------|---------|
| Publicly Funded | 38% |
| Privately Funded | 39% |
| Other | 23% |

Table 3

Population of area where Respondents Work Place Resides by Percentage

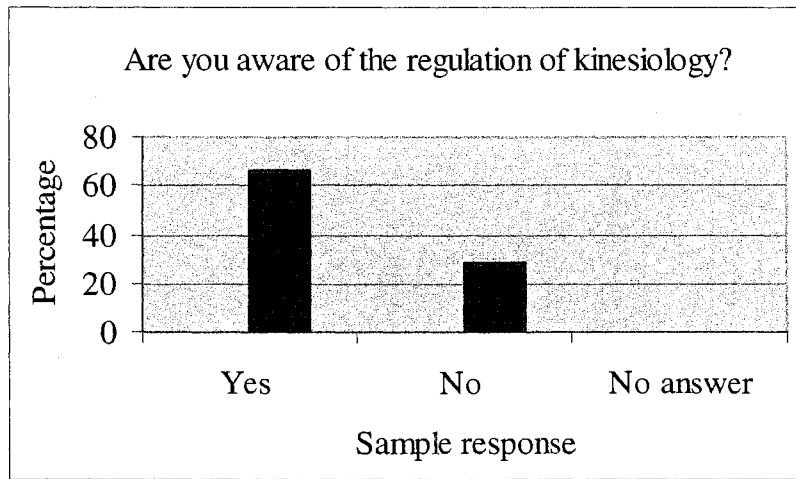
| Population | Percent |
|----------------|---------|
| under 10,000 | 7% |
| 10,001-50,000 | 30% |
| 50,000-100,000 | 34% |
| Over 100,000 | 21% |
| No answer | 7% |

Thirty eight percent of the workplace settings were publicly funded, 39% were privately funded. The twenty three percent that stated, other, consisted of settings from various sectors including multi and single disciplinary, health service provider, manufacturing, service sector, government, and fee for service. The majority of the sample worked in an area with a population between 10,000 and 100, 000.

5.4 Regulation of Kinesiology

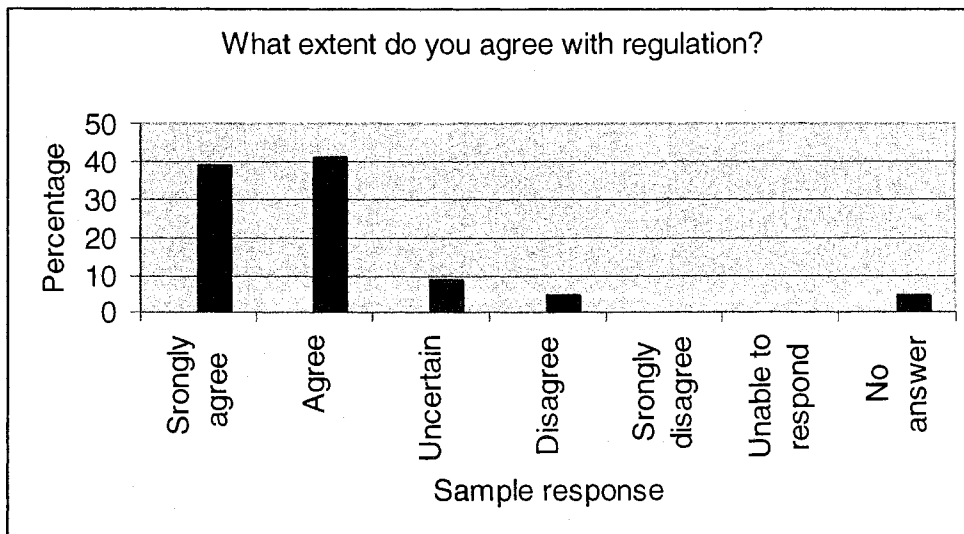
Sixty six percent of the respondents were aware of the regulation of kinesiology, while 28.5% were not aware of the regulation (see Figure 1).

Figure 1



The majority of the sample either strongly agreed (39%) or agreed (41%) to the regulation of kinesiology, 5% disagreed (see Figure 2).

Figure 2



5.5 Key Themes

The answers for Question twelve: What strengths do certified kinesiologists bring to the health care community? and Question thirteen: What will be gained by introducing certified kinesiologists as a newly regulated health profession? (see Table 4) were combined to describe strengths of the regulation of kinesiology.

Table 4

Key themes for Questions 12 and 13 by Number of Responses

| <u>Key Themes</u> | <u># of responses</u> |
|---|-----------------------|
| Accessibility to and inclusion of kinesiologists into multidisciplinary health care teams will be gained with regulation. | 28 |
| A standardization of practice for the profession will be gained by regulation. | 12 |
| Regulation enhances public safety. | 11 |
| Recognition of the profession both publicly and professionally will be gained by regulation. | 7 |
| Regulation of kinesiology may reduce health care costs. | 5 |
| Increased pay opportunities for kinesiologists will be gained by regulation. | 4 |

Weaknesses that may result from introducing the regulation of kinesiology were identified using Question fifteen: Can you identify challenges that kinesiologists may encounter as a regulated profession (see Table 5).

Table 5

Key Themes for Question 15 by Number of Responses

| Key Themes | # of responses |
|---|----------------|
| The profession needs a clearly defined and understood level of knowledge and scope of practice. | 15 |
| Challenge may occur due to lack of public awareness & understanding of profession. | 13 |
| Challenge may occur from other professionals who would see kinesiologists as competitors. | 9 |
| Challenge may occur with acceptance and respect from public and other professionals. | 5 |

Question fourteen: Will the certification (regulation) of kinesiology enhance the health care delivery of your organization? (see Table 6) and Question seventeen: What new opportunities will be realized by the certified kinesiologist that may not have existed previously? (see Table 17) were used to identify the opportunities to be gained from the regulation.

Table 6

Key Themes for Question 14 by Percentage

| Key Themes | Percent |
|--|---------|
| Yes, regulation will enhance health care delivery of your organization | 41% |
| No, regulation will not enhance health care delivery of your organization | 28% |
| Possibly, if kinesiologists are hired, recognized and included into public programming | 9% |

Table 7

Key Themes for Question 17 by Number of Responses

| Key Themes | # of responses |
|---|----------------|
| Increased job opportunities and career viability may occur with regulation. | 18 |
| The opportunity by kinesiologists to be integrated into multidisciplinary health teams is an opportunity of regulation. | 16 |
| Kinesiologists have an opportunity to educate and mentor. | 4 |
| The opportunity for kinesiologists to benefit from the insurance system, increase accessibility and lower cost to public for service. | 4 |

Question sixteen: What threat does the certification (regulation) of kinesiology pose to your health profession? (see Table 8), summarized the respondents perceptions, regarding regulation as a threat to other allied health professions.

Table 8

Key Themes for Question 16 by Percentage

| Key Themes | Percent |
|--|---------|
| No, regulation does not pose a threat to health profession. | 48% |
| Unsure/no answer if regulation poses a threat to health profession. | 28% |
| Yes, regulation does pose a threat to health profession. Key theme: Increased competition | 18% |

The final question (18) in the survey: If you could provide advice to the collective group of certified kinesiologists what would you say? (see Table 9), was used to collect information about suggestions and advice from stakeholders about the potential success of the kinesiology profession and career viability.

Table 9

Key Themes for Question 18 by Number of Responses

| Key Themes | # of Responses |
|--|----------------|
| Increase and emphasize education and awareness of profession | 22 |
| Clearly define scope of practice. | 12 |
| Collaborate with other health professionals, the profession can become part of the multidisciplinary team. | 9 |
| Enhance educational components in areas of health promotion, population health and prevention. | 7 |
| Maintain professional development. | 6 |

CHAPTER SIX

6.0 Discussion

It was the purpose of this study to introduce a survey to a sample of professionals and organizations representing regulated and non regulated health professionals to identify the perceptions concerning the new legislation to regulate kinesiology within the existing health service delivery environment. The findings suggest that as a regulated profession, kinesiology provides a unique expertise adding to client and patient care, and is a needed partner within the multidisciplinary health environment. Despite the need for the profession to clearly define, delineate, and promote its scope of practice to professionals and the public, the data indicates there are increased opportunities that exist within the health care sector, particularly in chronic disease prevention. The data also suggests that the profession is not considered a threat by existing key stakeholders.

The demographic data collected were consistent with the intended sample of key stakeholders within the health care delivery system. All the regulated and non regulated professionals and organizations included in the convenience sample were represented in the response data, except for occupational therapists. Individuals contacted from the cohort of occupational therapists chose not to respond to the survey. Registered dietitians, kinesiologists, and chiropractors each consisted of 10 % or more of the returned responses, followed by registered nurses and physio therapists. The non regulated professions were well represented by those in the fitness and sport industry (17%), public health (15%), and academic professions (10%).

Consistent with the professional make up of the survey respondents, the respondents were well educated, with 75% of them having obtained a 4 year university degree or higher. The majority of the responses, 57%, were between 30 and 49 years of age and 55% had been in their current profession for less than 10 years. Public and private funding structures were equally represented in the response data.

The convenience sample selection process may have had an influence on the number of responses within the fitness and sport industry due to the number of professional contacts made. It cannot explain the higher percentages of responses from registered dietitians, chiropractors, academics, and public health professionals.

Out of the stakeholders surveyed the majority, 66%, were aware that the practice of kinesiology had recently been regulated. It is important that the stakeholder cohort was aware that the profession of kinesiology was in a state of transition from a self regulated profession to a profession regulated under the RHPA. The most compelling information collected in this survey demonstrated not only the need to regulate kinesiology, but also a willingness to support the regulation of kinesiology, this is identified in the finding that 80% of the respondents either strongly agreed or agreed with the regulation. Only five percent disagreed with regulation, and furthermore, no respondents indicated that they strongly disagreed with the regulation.

6.1 Strengths of kinesiology as a regulated profession

In this project a SWOT analysis was used to organize specific responses to identify the four main themes: i) strengths, ii) weaknesses, iii) opportunities, and iv) threats. This approach enabled the researcher to capture the sentiments of the current care giver stakeholders in the Province, and to identify how the regulation and subsequent addition of a competitor in the field would be regarded by members of this specific allied health community.

Availability and accessibility of a unique expertise in the multidisciplinary health care environment are two strengths explicitly stated by the respondents. These two themes are recurring throughout the reported data. Respondents felt kinesiology would provide more diverse expertise within a multidisciplinary team. The respondents expressed that regulation would increase multidisciplinary collaboration and provide another facet of professionalism to the health care environment. With kinesiology's expertise as a regulated profession the respondents indicated that there would be a potential to increase the continuity of care for the client and that kinesiology could fill the gap between wellness and disease increasing all around care for clients and patients.

As demonstrated in the literature by Malek et al. (2002); Miller and Berry (2004); Shephard and Bonneau (2003), and Springer and Clarkson (2003) there is a need for well educated and certified individuals administering health and fitness advice. Furthermore, the literature suggests that there is a risk of harm to the public if there is a lack of knowledge on behalf of those that deliver exercise advice. As found in Connaughton et

al. (2001) and Angyan (2004) not all regulated professionals have the proper education or credentials to assess and prescribe exercise and a recommendation that proper licensing requirements for those that assess, evaluate, and prescribe exercise be implemented. The responses in the present study indicated that kinesiologists have the skill set to provide a unique expertise and deliver this expert advice safely.

In addition, by creating a regulated profession the notion of explicit standardization of practice and public safety were identified as strengths of kinesiology as a regulated profession. With a clearly understood standard of practice the survey respondents noted that there would be uniform credentialing, control, and monitoring of the level of practice and less fraud from practitioners without proper credentials.

According to the respondents, creating a better understanding of the scope of practice would improve the credibility of kinesiologists in the health care industry. This standard of practice would potentially ensure public safety and allow for the surveillance and monitoring of practitioners by the public which would contribute to the overall safety of the public.

As an aside, some respondents chose to describe the strength of regulation in terms of the generalized reduction in the health care costs, as function of creating new practitioners whom they felt could help to reduce health issues related to sedentary lifestyles.

6.2 Weaknesses of kinesiology as a regulated profession

The primary weakness of the regulation of kinesiology as outlined by the survey respondents was the need for the profession to have a clearly defined and understood level of knowledge and scope of practice. Respondents suggested that there is confusion about the role of kinesiology in general terms. It is regarded by the respondents that the profession needs to find a niche. The respondents indicated that the practice of kinesiology needs not only to clearly define their specific role but also identify and clarify how it overlaps and differs from the scope offered by other health care professionals. The respondents felt this lack of clarity is an area that the profession needs to bolster in terms of their public image.

Although the meaning of kinesiologist is well understood by kinesiologists there is clearly a gap in understanding among the general public and within the stakeholder community. According to the respondents a key weakness is the lack of public knowledge and professional awareness in terms of the educational background, level of knowledge, and practical skills kinesiologists have acquired through their academic training.

Furthermore, the respondents suggested that to ensure the profession of kinesiology is fully utilized within the current health care environment and understood by the public the profession needs to educate and promote the expertise kinesiologists have and the role they will play within the health care delivery system. This lack of

understanding of the profession presents itself as a primary weakness according to the respondents because without an accepted and understood scope of practice the profession may not be well accepted by other regulated professionals and therefore may not reach its full potential.

Confusion over the name and service provided by kinesiologists identified in the survey data is consistent with the literature. As found in OKA₂ (2005); Higgins (1989) and Mills (1992), clear identifying names and brands for kinesiology do not exist and many names exist within the professional milieu adding to the lack of identity and clarity. Knudson (2005) also noted that for kinesiology to be a well utilized profession problems remain in creating and transmitting knowledge that can be applied to professional practice. Knudson (2005) reiterates the findings in the current survey that kinesiology must evaluate the knowledge it generates and the transfer of that knowledge to professionals and the public.

6.3 Opportunities kinesiology may encounter as a regulated profession

The opportunities for kinesiology as a regulated profession are clearly identified within the responses to the survey. Regulation will increase career viability that is by creating a regulated profession, kinesiologists will have more opportunity to practice and increase the scope of practice as the profession evolves. For example, respondents suggested that by regulating kinesiology there will be increased opportunities to work in the chronic disease prevention field and in health promotion programming both indirectly

and directly by working in primary roles and supporting health programs. According to the response data there may also be opportunities for kinesiologists in rehabilitation settings providing more therapy work and an opportunity to practice independently as business owners.

Increased opportunities within the larger health care delivery system also increase the integration into multidisciplinary health teams and thereby improve societal awareness to the profession of kinesiology. Regulation of kinesiology according to the respondents provides a multidisciplinary approach to solving client and/or patient issues and an extended network of referrals among health professionals. The respondents indicated that kinesiologists as part of the multidisciplinary health delivery team are essential and will enhance the overall quality of Ontario's community health centres and family health teams.

According to the response data, as regulated professionals, kinesiologists have an opportunity to educate and mentor within health care agencies, institutions and the fitness industry, particularly on subjects pertaining to health promotion, chronic disease prevention, and management. A less noted opportunity identified by the respondents was the opportunity to bill directly through many insurance systems increasing usage and career viability.

Forty one percent of the respondents indicated that regulation would enhance health care delivery within their organization. According to 9 % of the respondents, if

kinesiologists were hired and recognized within their organization, they would hire them and utilize kinesiology services to enhance the health care delivery of their current workplace organization.

6.4 Threats that regulation of kinesiology may pose to other health professions

In general, most respondents did not feel that the regulation of kinesiology would pose a threat to their profession. However, 18% of the respondents suggested that by creating an additional regulated health profession (i.e. certified kinesiology) there would be too much similarity and overlap in scope of practice among health care deliverers. In particular the potential for infringement of kinesiologists on the current health delivery stakeholders was a considered threat. Respondents suggested that through regulation there would be an unnecessary diverting of patients and clients away from existing caregivers and an increased competition in the marketplace

6.5 Advice for the profession

The primary advice given to kinesiologists by respondents was the need to emphasize education and awareness of the profession, with particular emphasis on the need to educate decision makers, and make others aware of current training and knowledge of kinesiologists' scope of practice. Establishing a clearly defined scope of practice was a repeated theme, as was the need to collaborate with other health professionals in a non adversarial team oriented approach, and be able to be respectful

and understanding of skills and knowledge of others within the multidisciplinary health care environment.

From a program development perspective the respondents indicated that education was needed in the areas of health promotion, population health and disease prevention. Furthermore, respondents noted that kinesiologists as a regulated profession needed to maintain professional development, stay current in terms of literature, and continue to maintain a standards and ethics.

6.6 Limitations and Future Recommendations

The study is limited in that it was a convenience study targeted at a small sample of stakeholders mostly located in Southern Ontario. The sample was not a random sample of stakeholders across Ontario. The survey was distributed during a one month time frame in a time of transition for the kinesiology profession. The survey data obtained cannot lead to conclusions regarding the overall state of kinesiology as a profession.

It is recommended that further research is done with regard to the scope of practice of the kinesiology and the misunderstandings that seems to exist within the stakeholder communities; this will help identify the need of the profession to better define and promote its practice. Further research is recommended during the years following regulation in order to assess use and sustained viability.

Conclusion

There are perceived strengths, weaknesses, opportunities, and threats of the regulation of kinesiology by the cohort of respondents, who provide a reasonable sample of health care providers. The key strengths of kinesiology as a regulated profession are: the increased availability and accessibility by the public and professionals to a unique expertise within the current multidisciplinary health team environment, the assurance of a standardized scope of practice, increased accountability and public safety, and the potential to reduce health care costs. According to the data, the identified strengths of regulation will ultimately enhance health care delivery and improve client and patient care.

The primary weaknesses perceived by the respondents of kinesiology as a regulated profession are: the lack of a clearly defined scope of practice or level of knowledge, the need to delineate kinesiology's scope from other health professions, and a lack of promotion of the professions unique and identifiable skills. These perceived weaknesses have decreased public and professional awareness, understanding, and usage of the profession.

Kinesiology as a regulated profession will benefit from many opportunities that may lead to increased career viability, they include employment in: multi disciplinary health teams, health promotion programming, rehabilitation work, primary and support roles, independent practice, insurance companies, and education.

Response data suggested that the majority of respondents indicated that no threat existed with the regulation of kinesiology; only a small percentage of respondents perceived that regulation of kinesiology would introduce a competing profession with overlapping and similar scopes of practice to the current health care delivery environment. Furthermore, the acceptance in to the existing health care sector may be enhanced if kinesiologists maintain a non adversarial and respectful approach as they enter into the existing health sector. Increased training in health promotion and population health, and the need to maintain professional development and a strong professional association would benefit the profession as it transitions into a newly regulated profession.

The findings of the study clearly identify the general acceptance of, and the perceived need for, kinesiology within the allied health care sector. The profession will not, however, be fully utilized until its scope of practice is clearly defined and understood by fellow professional stakeholders and the public. The definition of the scope of practice should include kinesiologists multiple areas of practice, i.e. ergonomics, workplace assessments, exercise testing, exercise prescription, rehabilitation etc. If the lack of understanding of the scope of practice is perceived by respondents as the primary barrier to career viability, further research is needed in two areas. First, investigation is needed to better understand where, in fact, the confusion exists among stakeholders regarding kinesiologists scope of practice, and secondly, to assess increased career viability, including usage and compensation levels, as the profession transitions to a fully regulated profession.

The study respondents were generally positive and supportive of the newly regulated profession; it will be of interest to examine the perceptions of professional stakeholders as kinesiology becomes more established. Currently the profession is in transition, the regulatory body, the College of Kinesiologists of Ontario, is not fully established and may not be for another year. Stakeholders may not perceive kinesiology as a threat because; at present it is not one. If the profession is fully understood, well marketed and highly utilized the stakeholders may view kinesiologists as more of a threat and resist acceptance into current delivery practices.

Kinesiology has a valuable role to play in our society, especially as we focus on physical activity, fitness and healthy behaviours. Within the next two years the profession has a unique opportunity to ensure that stakeholders and the public fully understand and utilize the profession. This utilization is important as kinesiologists can increase health care service options, with the ultimate goal of optimizing the health of the population.

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APPENDIXES

Appendix 1

Pre notice email sent to sample

Dear

As a graduate student in the Master of Public Health Program at Lakehead University, I am conducting a study entitled: **Assessing the relative perspective of the Regulation of Kinesiologists among other Health Professionals**. In a few days I will be sending you an email with a link to an 18 question survey and invite you to participate. If it is appropriate, I also invite you to post the survey on your association website and invite your members to participate.

The purpose of this research is to identify the perceptions concerning the new legislation within designated stakeholder communities of kinesiology; with the intent of program development, education and subsequent research to ensure success of the profession of kinesiology.

Your input is important as you represent colleagues, competitors, associates and employers of Kinesiologists within the health care delivery environment.

Your participation is completely voluntary and you may withdraw from the study at anytime. All answers are accepted and are completely anonymous. No individual will be identified in any report of the results. A summary of the results will be available to the public and will be made available to you at your request upon completion of the study. All information from the study will be securely stored at Lakehead University for seven years. If you have any questions or concerns regarding this study please do not hesitate to contact me at (519) 940 3735 or kbraniff@lakeheadu.ca or Dr. William Montelpare, supervising Professor at (807) 343-8481 or william.montelpare@lakeheadu.ca. You may also contact the Lakehead University Research Ethics Board at (807) 343-8283.

Kindest Regards,

Kerry Braniff, HBA
Graduate Student
Master of Public Health
Lakehead University

Appendix 2

Email containing survey sent to the sample

Dear

As a graduate student in the Master of Public Health Program at Lakehead University, I am conducting a study entitled: **Assessing the relative perspective of the Regulation of Kinesiologists among other Health Professionals.** Below is a link to an 18 question survey and I invite you to participate. If it is appropriate, I also invite you to post the survey on your association website and invite your members to participate.

Your input in this study is important as you represent colleagues, competitors, associates and employers of Kinesiologists within the health care delivery environment.

Please click on the Lakehead University site below to access the background information, instructions and survey web forms.

<http://flash.lakeheadu.ca/~health/typeIII/main.html>

If you have any questions or concerns regarding this study please do not hesitate to contact me at (519) 940 3735 or kbraniff@lakeheadu.ca, or Dr. William Montelpare, supervising Professor, at (807) 343-8481 or william.montelpare@lakeheadu.ca. You may also contact the Lakehead University Research Ethics Board at (807) 343-8283.

Kindest Regards,

Kerry Braniff, HBA

Appendix 3

Reminder email sent to the sample

Dear

As a graduate student in the Master of Public Health Program at Lakehead University, I am conducting a study entitled: **Assessing the relative perspective of the Regulation of Kinesiologists among other Health Professionals.** I have recently sent you an 18 question survey. I encourage you and your colleagues to complete the survey if you have not already done so.

Your input in this study is important as you represent colleagues, competitors, associates and employers of Kinesiologists within the health care delivery environment.

Please click on the Lakehead University site below to access the background information, instructions and survey web forms. Please note the introduction section has been modified.

The survey link below will remain open until March 31, 2008.

<http://flash.lakeheadu.ca/~health/typelll/main.html>

If you have any questions or concerns regarding this study please do not hesitate to contact me at (519) 940 3735 or kbraniff@lakeheadu.ca, or Dr. William Montelpare, supervising Professor, at (807) 343-8481 or william.montelpare@lakeheadu.ca. You may also contact the Lakehead University Research Ethics Board at (807) 343-8283.

Kindest Regards,



Kerry Braniff, HBA
Graduate Student
Master of Public Health
Lakehead University

Appendix 4

Introduction page to the survey *Assessing the relative perspective of the Regulation of Kinesiologists among other Health Professionals* link found at <http://flash.lakeheadu.ca/~health/typeIII/main.html>



Assessing the relative perspective of the Regulation of Kinesiologists among other Health Professionals

| | |
|--|---|
| INSTRUCTIONS FOR DATA ENTRY AND BACKGROUND NOTES |  |
| ACCESS TO WEB FORMS |  |

Appendix 5

Background and instruction page of survey, *Assessing the relative perspective of the Regulation of Kinesiologists among other Health Professionals* link found at <http://flash.lakeheadu.ca/~health/typeIII/main.html>

Assessing the relative perspective of the Regulation of Kinesiologists among other Health Professionals

Kinesiology is a popular university degree program with 7000 students enrolled in 17 Canadian Council of University Physical Education and Kinesiology Administrators (CCUPEKA) accredited University programs across the country. More than two-thousand of these students graduate in Ontario each year. The Ontario Kinesiology Association (OKA), Ontario's certification and regulatory body estimates that there are more than 1400 certified members. Certified Kinesiologists are trained to assess, prescribe and evaluate human movement and exercise. They work in a variety of settings that include; hospitals, long term care facilities, rehabilitation clinics, worksites, research centres, health and fitness facilities, private practices, insurance companies, assessment companies and wellness centres (Ontario Kinesiology Association (OKA), 2005).

In April 2006 the Health Professions Regulatory Advisory Council (HPRAC) submitted a recommendation to the Minister of Health and Long Term Care to regulate Kinesiology under the Regulated Health Professions Act (1991) (RHPA). In June, 2007 Bill 171 achieved Royal Assent within the Ontario Legislative Assembly, designating kinesiology as a regulated health profession. As a result of this legislation graduates of Kinesiology programs will now receive provincial certification and will be considered as part of the allied health professions' regulated services. This recent legislative move enables highly trained individuals to work within a health care system that is increasingly focused on healthy lifestyles and exercise. Further, this opportunity provides a focus for graduates of Kinesiology programs to work as Certified Kinesiologist, which will ensure that potential clients are protected by a well understood standard of practice or level of service (OKA, 2005).

As a graduate student in the Master of Public Health Program at Lakehead University, I am conducting a study entitled: *Assessing the relative perspective of the Regulation of Kinesiologists among other Health Professionals*, and I invite you to participate. The purpose of this research is to identify the perceptions concerning the new legislation within designated stakeholder communities of kinesiology; with the intent of program development, education and subsequent research to ensure success of the profession of kinesiology.

The following survey intends to collect information about the relative perspective of the Regulation of Kinesiologists among other Health Professionals within the current delivery of services.

Your input is important as you represent colleagues, competitors, associates and employers within the health care delivery environment. Your perceptions will help identify the strengths and weaknesses of the profession providing data that will help in program development, education and further research.

The survey includes 18 questions and does not have a time limit but should take approximately 20 minutes. Please take your time and click submit when you have finished.

Your participation is completely voluntary and you may withdraw from the study at anytime. All answers are accepted and are completely anonymous. No individual will be identified in any report of the results. A summary of the results will be available to the public and will be made available to you at your request upon completion of the study. All information from the study will be securely stored at Lakehead University for seven years. If you have any questions or concerns regarding this study please do not hesitate to contact me at (519) 940 3735 or kbraniff@lakeheadu.ca or Dr. William Montelpare, supervising Professor at (807) 343-8481 or william.montelpare@lakeheadu.ca. You may also contact the Lakehead University Research Ethics Board at (807) 343-8283.

**Submitting the completed copy of this survey denotes your consent to participate.
Thank you.**

Return to Menu



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The current time is

Appendix 6

The survey used in the study *Assessing the relative perspective of the Regulation of Kinesiologists among other Health Professionals* link found at <http://flash.lakeheadu.ca/~health/typeIII/main.html>

MPH Graduate Research Thesis

Assessing the relative perspective of the Regulation of Kinesiologists among other Health Professionals

| | |
|--|--|
| 1. Age | 18 |
| 2. Sex | Male |
| 3. Highest level of education | Secondary School If other please specify |
| 4. Current Professional Position | |
| 5. How many years have you been in your current professional role? | |
| 6. What is your workplace? | other If other please specify |

| | |
|----------------------------------|--|
| 7. How is your workplace funded? | <input type="checkbox"/> Publically Funded <input type="checkbox"/> Privately Funded <input type="checkbox"/> Multi disciplinary <input type="checkbox"/> Single disciplinary <input type="checkbox"/> Health Service Provider <input type="checkbox"/> Manufacturing <input type="checkbox"/> Service <input type="checkbox"/> other-- please note |
|----------------------------------|--|

| | |
|--|---|
| | |
| <p>8. Which value best describes the population estimate for the geographical area in which you work.</p> | <p><input type="checkbox"/> Less than 10,000 people <input type="checkbox"/> 10,001 to 50,000 <input type="checkbox"/> 50,000 to 100,000 people <input type="checkbox"/> more than 1 million people</p> |
| <p>9. Are you aware that Kinesiology is now a Regulated Health Profession under the Regulated Health Professions Act (1991)?</p> | <p><input type="checkbox"/> YES <input type="checkbox"/> NO</p> |
| <p>10. To what extent are you in agreement with the decision to add Kinesiologists as a regulated health profession?</p> | <p><input type="checkbox"/> Strongly agree <input type="checkbox"/> Agree <input type="checkbox"/> Uncertain <input type="checkbox"/> Disagree <input type="checkbox"/> Strongly Disagree <input type="checkbox"/> unable to respond</p> |
| <p>11. How often do you work with Certified Kinesiologists?</p> | <p><input type="checkbox"/> Never <input type="checkbox"/> Sometimes <input type="checkbox"/> Often <input type="checkbox"/> Always</p> |

12. What strengths do certified kinesiologists bring to the health care community?

13. What will be gained by introducing certified kinesiologists as a newly regulated health profession?

[Empty text box]

14. Will the certification of kinesiologists enhance the health care delivery of your organization?

[Empty text box]

15. Can you identify challenges that the certified kinesiologist may encounter as a newly regulated health profession?

[Empty text box]

16. What threat does the certification of kinesiologists pose to your health profession?

[Empty text box]

17. What new opportunities will be realized by the certified kinesiologists that may not have existed previously?

[Empty text box]

18. If you could provide advise to the collective group of certified kinesiologists what would you say?

[Empty text box]

Reset

Appendix 7

Summary of demographic information

Table 1

| | | | | | | | |
|---------------------|------------------------------|-----------|-----------|--------------------|---|------------|---|
| Ques. 1. | Age by Decade | | | Ques. 4 | Current Prof Position | | |
| | under 20 | 1 | | | RMT | | 2 |
| | 20's | 10 | | | DC | | 6 |
| | 30's | 17 | | | RN | 4(3 in PH) | |
| | 40's | 15 | | | Professor/Academic | | 6 |
| | 50's | 12 | | | RD | 8(7 in PH) | |
| | .. | 1 | | | Physio | | 3 |
| | Total | 56 | | | | | |
| Ques. 2. | Gender | | | | | | |
| | Male(1) | 19 | | Fitness/Sport Ind. | | 10 | |
| | Female (2) | 37 | | Kinesiologists | | 6 | |
| | Total | 56 | | Dr. of Acup | | 1 | |
| Ques. 3. | Highest Level of Educ | | | Dr. Nat. Med. | | 1 | |
| | Secondary School (1) | | 3 | Assessment Comp | | 1 | |
| | Community Coll. (2) | | 4 | Athletic Therapist | | 1 | |
| | University 3yr (3) | | 1 | Mental Health Dir | | 1 | |
| | University 4yr (4) | | 12 | Pub Hlth | Child Hlth | 1 | |
| | University Prof (5) | | 10 | | RD | 7 | |
| | University Ma (6) | | 20 | | Dir/Man | 3 | |
| | University Doct (7) | | 2 | | RN | 4 | |
| | Other (8) | | 4 | | Health Pro | 4 | |
| | Total | | 56 | | Other | 1 | |
| Ques 3 Other | Chiro College | | 5 | Ques. 5 | Dual Profession No Total Yrs in Current Profession | | |
| | Naturopathic Coll | | 1 | | 0-5yrs | 21 | |
| | Add Coll educ | | 2 | | 6-10yrs | 10 | |
| | Add Univer ed | | 2 | | 11-15yrs | 7 | |
| | | | | | 16-20yrs | 8 | |
| | | | | | 21-25yrs | 4 | |
| | | | | | 26-30yrs | 2 | |
| | | | | | 30 plus | 2 | |
| | | | | | no ans | 2 | |
| | | | | | Total | 56 | |

Appendix 7 Continued

Summary of demographic information continued

Table 2

| | | | | | | | | |
|---------------------|----------------------------------|-----------------------------|-----------------------|------------------------------------|---|---|----|-------|
| Ques. 6. | What is your Workplace | | | Ques. 8. | Which value best describes pop estimate where you work | | | |
| | Hospital (1) | | 1 | | under 10,000 | | 4 | |
| | LTC fac (2) | | 0 | | 10,001-50,000 | | 17 | |
| | Rehab Cent (3) | | 2 | | 50,000-100,000 | | 19 | |
| | Wrksite (4) | | 0 | | Over million | | 12 | |
| | Research Cen (5) | | 0 | | no ans | | 4 | |
| | Health/Fit Cen (6) | | 9 | | Total | | 56 | |
| | Priv Prac (7) | | 11 | | Ques. 9. | Are You Aware of the Reg. | | |
| | Insurance Com (8) | | 0 | | | Yes (1) | 37 | 66% |
| | Ass. Comp (9) | | 1 | | | No (2) | 16 | 28.5% |
| | Wellness Cent (10) | | 1 | | | No ans. | 3 | .05% |
| | Other (11) | | 31 | | | Total | 56 | |
| | Total | | 56 | | Ques. 10. | To what extent do you agree with the reg | | |
| | Rehab Clinic | | 1 | | | Strongly Agree (1) | | 22 |
| College | | 2 | Agree (2) | | | 23 | | |
| Forensic Hosp. | | 1 | Uncertain (3) | | | 5 | | |
| Public Health | | 15 | Disagree (4) | | | 3 | | |
| Sport Ind. | | 1 | Strongly Disagree (5) | | | 0 | | |
| Univ. | | 4 | Unable to respond (6) | | | 0 | | |
| Wellness on Site | | 1 | No ans | | | 3 | | |
| Community | | 1 | Total | | | 56 | | |
| Chiro. College | | 1 | Ques. 11.. | How often do you use Kin's. | | | | |
| Self emp | | 3 | | Never (1) | | | | |
| Comm. Health Centre | | 1 | | Sometimes (2) | | | | |
| Ques. 7. | How is Your Wrkpl. Funded | | | | Often (3) | | | |
| | Publically Funded | | | 23 | Always (4) | | | |
| | Privately Funded | | | 24 | | | | |
| | Multi Disciplinary | | | 3 | | | | |
| | Single Disciplinary | | | 1 | | | | |
| | Health Service Provider | | | 1 | | | | |
| | Manufacturing | | | 2 | | | | |
| | Service Sector | | | 1 | | | | |
| | Other | | | | | | | |
| | | | Govern't | 2 | | | | |
| | | | Fee for Serv. | 2 | | | | |
| | | Variety | 2 | | | | | |
| | | Multiple Funding Streams No | | | | | | |
| | | Total | | | | | | |

Appendix 8

Summary of answers to open ended questions 12 and 13, separated by respondent's identifying number

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|--|
| <p>Question 12: What strengths do certified kinesiologists bring to the health care environment?</p> <p>Question 13: What will be gained by introducing certified kinesiologists as a newly regulated profession?</p> |
| 1. Standardized practice recognition, accountability, |
| 2. better exercise knowledge in community |
| 3. Safety and efficacy with regards to the application of the exercise sciences in the areas of health and fitness, ergonomics and therapeutic exercise. |
| 4. Accountability, Public safety. Differentiation from "personal trainers". Recognition of appropriate professionals to work with for exercise, fitness, ergonomics, exercise physiology. Professionalism! |
| 5. I don't know |
| 6. The ability to seek specialized assessments from subject matter experts in the area of rehabilitation, workplace assessments, functional testing, ergonomics, exercise prescription, |
| 7. A standardized knowledge base for the profession which will improve credibility of C.K.s in the health care industry. Protection of the public through appropriate regulatory bodies will also improve credibility and accountability. |
| 8. an alternate therapy choice for referrals (other than physiotherapist) that perhaps can bridge between therapy and personal fitness trainers, Having certified and registered can only enhance the quality and public trust in kinesiologists, being recognized as regulated and what it means to be regulated as it pertains to the public. Inclusion into insurance providers as a regulated health profession. Educating public on the difference between regulated and non-regulated kinesiologist. |
| 9. Again Unknown, |
| 10. ,, |
| 11. Can hopefully reduce treatment costs |
| 12. More all around care of individuals who have not found solutions to their problems through other avenues. |
| 13. Access to more insurance company work (SABS), access to work with CCAC, clinical work in hospitals, better pay for kinesiologists working in rehab, |
| 14. additional levels of care for clients, |
| 15. increased public access to certified fitness/rehab professionals and subsequent improved public health, reduced health care costs through reduction in health risks due to sedentary lifestyle, protection of the title/credential 'certified kinesiologist' which will ensure only qualified individuals practice as CKs, |
| 16. practicality, |
| 17. allows for monitoring and control of who can use the title of "kinesiologist" which protects the public, e.g., if someone is not practicing to standards, they can be restricted from practice, |
| 18. Physical activity, nutrition - reduce obesity, lifestyle changes staff to work with public, |
| 19. Better funding from some sectors for kin work, increased number of regulated professionals, |
| 20. Their services will be affordable |
| 21. Same as above, (I think question 12 was missed) |
| 22. Less fraud from individuals without the proper credentials, |
| 23. A hands-on expertise, |
| 24. ,, |
| 25. Regulation is in place to protect the public. I believe the college can clarify scope of practice e.g. vs. physio, chiropractic |
| 26. Health of our community - trusted source for our public. maybe put others not qualified out of business, |
| 27. increased pay for certified kinesiologists, ability to move onto certain management positions that require an affiliated health body recognition in public health |
| 28. More diverse expertise; cost-savings to have professionals in addition to doctors, family physicians with whom we work would have further resources to help our mutual clients; |
| 29. Standardization of procedures Adherence to professional standards & guidelines, Uniform credentialing, Protection of the public, |
| 30. ,, |
| 31. More availability to health professionals, |

| |
|--|
| 32. ... |
| 33. Greater recognition as to its importance, Hopefully up the standard of physical activity promotion |
| 34. Establish role within the medical community, establish credibility among other medical professionals. |
| 35. Accountability |
| 36. People will be provided with an education with respect to the certification of Kinesiologists compared to Personal trainers and when they may require one over the other. In addition, the general public will be assured that standards and codes of ethics are followed closely as it is their health. |
| 37/38. Current regulated health professionals Dr.s and Nurses and uncertified professionals (health Promoters) who are trying to promote physical activity at a population level, are not educated enough in movement to provide advice to individuals related to Movement. |
| 39. Increased knowledge of the field of kinesiology, increased recognition of the value of kinesiologist |
| 40. Control/oversight of practice - this could be important, since there is little standardization in training curricula or competition for seats in programs |
| 41. Add another facet of professionalism |
| 42. Depending upon their experience and specialization, will provide another option for direct access to a rehabilitation professional, particularly in under serviced communities. |
| 43. It's another source of information from an accredited professional for our clients. It already has proven very valuable., |
| 44. Fill the gap between wellness and disease states as well as manage chronic conditions for maximum client function and controlling medical costs. |
| 45. More regulated health professionals |
| 46. control of level of expertise offered to clients seeking kinesiologists |
| 47. Nothing... they should not be regulated. their apparent goal was legitimization to enhance access to insurance benefits (as per their leadership), |
| 48. ... |
| 49. Increased multidisciplinary collaboration, respect and value of kinesiologists. |
| 50. More expertise in a very costly segment of health care environment, |
| 51. Greater recognition of the profession by other health professionals and the public; greater development of the profession; |
| 52. continuum of care for the patient , |
| 53. Standards will be introduced when prescribing exercise. These are required because there are many unqualified individuals attempting to prescribe exercise at present. |
| 54. Recognition for the public. |
| 55. Client protection by ensuring that practitioners are well qualified and monitored over the course of their profession, will make it easier to identify a qualified practitioner, |
| 56. More regulation around suggested 'workouts' and information provided at gyms and diet clinics, |
| 57. ... |

Appendix 9

Summary of answers to open ended question 14 separated by respondent's identifying number

| |
|---|
| Question 14: Will the certification of kinesiology enhance the health care delivery of your organization? |
| 1Yes, |
| 2No |
| 3Yes |
| 4Absolutely yes |
| 5No |
| 6Absolutely, We will actively utilize Kinesiologists to provide training in the workplace as a preventative measure for MSD's and also in the return to work process., |
| 7It very well could, A Kinesiologist is currently utilized for a Functional Abilities Clinic and Cardiac Wellness Program, but the roles could expand with increasing focus of prevention of disease and health promotion. I see great value in having additional C.K.s contracted/on staff for educational purposes and chronic disease management programs. |
| 8It should not as health care should be a team approach when possible |
| 9Unknown |
| 10,,, |
| 11Not specifically |
| 12Most definitely will help competitive and non competitive athletes achieve optimal physical and mental health and balance in their lives |
| 13Yes |
| 14 public health is currently not an area for kinesiologists,but certainly see the value in this role in primary care and other community and acute care sectors, |
| 15yes |
| 16probably not |
| 17 not at this time |
| 18It could if they are hired, I just had two people with this education apply for a public health program assistant position |
| 19They are already certified by professional organization |
| 20 No, we have wellness people on sight but not a kinesiologist |
| 21Yes |
| 22n/a |
| 23Yes |
| 24,, |
| 25Yes |
| 26Yes we currently have one kinesiologist I can see in the future there will be more |
| 27Yes |
| 28Probably most relevant in our work with clients who have chronic pain and other physical challenges concurrent with mental health challenges |
| 29No |
| 30,, |
| 31Yes |
| 32,, |
| 33Yes |
| 34Yes |
| 35Not sure, Likely not applicable |
| 36Yes |
| 37/38 If those who control public health recognize them. Nurses have the upper hand and I would advise that those seeking employment in public health also take a nursing degree, or a health promotion degree. They will need to learn about population health and health promotion strategies., |
| 39 I'm not sure., |
| 40,, |
| 41 Absolutely |
| 42Not currently, . The current model for health care delivery within our clinic is all care is provided one to one with a |

| |
|---|
| physiotherapist. |
| 43 it already has proven very valuable |
| 44, it will provide opportunities to bill and therefore expand services, |
| 45No |
| 46Yes |
| 47 no |
| 48Likely |
| 49Possibly, hired as a specialist for all programs? |
| 50Help ensure my continuing education remains current and hopefully will allow for more interprofessional cooperation |
| 51n/a |
| 52We also work with certified personal trainers to provide our fitness and lifestyle services |
| 53Not presently |
| 54Alternate help for my patients |
| 55No |
| 56Possibly - if brought into public programming. . |
| 57,, |

Appendix 10

Summary of answers to open ended question 15 separated by respondent's identifying number

| Question 15: Can you identify challenges that the certified kinesiologists may encounter as a newly regulated profession? |
|--|
| 1. Lack of acceptance from other allied health professionals who believe their services are similar and see CK's as competition., |
| 2. not well know to private practitioners |
| 3. Referral system with other health care providers. Acceptance by insurance companies as legitimate professionals to help clients with health and fitness, ergonomics and therapeutic exercise etc for fees. |
| 4. Public awareness of expertise and scope of practice. Collaboration with other health care professionals (PT, OT, Chiro, MD etc). |
| 5. Lack of public knowledge as to what they can do and in what organizations and settings they work |
| 6. I see challenges in educating both the general population and current health practitioners about the merits of seeking the services of a Kin. There are services that a Kin may provide that are currently associated with an OT or PT., |
| 7. Confusion over the role of Kinesiologists has historically been a problem and I foresee this continuing until more C.K.s are utilized and their benefits are realized in the eyes of health care administrators and evidence is in the data |
| 8. However, they would be caring for 'sports' - related injuries as do some chiropractors. |
| 9. Lack of understanding by other healthcare practitioners of their education background and scope of practice |
| 10. ,,, |
| 11. resistance to change by other health professionals, |
| 12. Gaining the respect of anyone who hasn't experience the benefits of kinesiology. |
| 13. Opposition from PT and OT. Lack of specific job training skills to work in rehab |
| 14. Will need to be able to clearly define their specific role, where there is overlap etc |
| 15. Overlapping scopes of practice with physiotherapists, physio assistants, and personal trainers. |
| 16. higher expectations for certifications from those who have long time experience |
| 17. determining how they "fit" with other health care providers it will take time to make the transition to being considered regulated in the health care community, sorting out who can do what |
| 18. More education of the public and employers of their skill set. |
| 19. I think there are significant differences in the training of kins currently depending on their program, so one challenge will be employers' knowledge and perception of the depth of their learning. There seems to be a lack of standardization across the education for kins which needs to be addressed. |
| 20. Giving proper care with in time constraints |
| 21. , , |
| 22. n/a |
| 23. The ability to distinguish the differences between the practice of kinesiology and chiropractic |
| 24. ,,,,, |
| 25. the education of the public regarding the role of a regulatory college is ongoing |
| 26. Promotion and understanding of their role/expertise's by the public. The comparison of price for a kinesiologist support versus someone with less formal education. |
| 27. Lack of understanding as to their benefits in certain professions lack of joint knowledge/speciality by all kinesiologists (their background/courses taken are so varied) |
| 28. credibility in the beginning |
| 29. Competition from allied health professions with training and expertise in exercise and movement sciences, Available funding for their service Limited knowledge of skill application to complex chronic conditions, |
| 30. ,,, |
| 31. , |
| 32. ,,,,, |
| 33. Need a background in health promotion and knowledge of population based approaches |
| 34. Clarifying the overlap in Scope of practice to physiotherapists, who believe that they are trained to deliver fitness assessment and exercise prescription. Establishing the exit criteria (theory and practical exam requirements) for such a broad profession (i.e. if someone trains in a Kinesiology undergrad in sport psychology, and another in ergonomics, and another as an exercise physiologist working in chronic disease - how can these three individuals be adequately assessed (exit criteria) and regulated under one body? |
| 35. promotion of the profession as a regulated health profession |

| |
|--|
| How being a regulated health profession is beneficial to the general public, |
| 36. Challenges include having other Health professions accepting that there is a place for Kinesiologists and that they are capable of providing valuable information that will enhance the health care system. |
| 37, 38. And there are not many people who understand the profession or know what they can do. The profession needs to spend some time and money promoting the field. |
| 39. Perhaps resistance from OT/PT sectors due to possible overlap in services. |
| 40. Lack of professional credibility; lack of knowledge concerning pathology and disability |
| 41. not sure |
| 42. Initially in defining what they do and educating the public and other health care professionals. From their carving out their niche within the rehab landscape without alienating other professions. |
| 43. They may feel same dis-content from other health professional in the industry because they may see it as a hit in their pocket book and more competition. |
| 44. Entry into the workplace and competition. |
| 45. scope of practice will be challenged within a private clinical setting, |
| 46. we will be assured of a level of knowledge when we refer our clients to a kinesiologist for their expertise, they will have to stay updated on the latest research in their profession |
| 47. Generally do not understand their limitations, |
| 48. ,, |
| 49. Being respected and valued to colleagues, being understood in terms of job responsibilities |
| 50. ignorance/lack of knowledge or appreciation of the benefits of a newly regulated health profession |
| 51. Challenges include: building awareness and understanding within the public and amongst other health professionals; Education of the profession regarding the requirements of operating within a regulated environment |
| 52. roles and responsibilities since there may be some overlap with physiotherapists and other recognized health care professionals, a range of services will provide a continuum of care for those who need it and desire it, |
| 53. possible resistance from other health professionals that want control over their patients possible safety and liability issues when overseeing/supervising exercise programs |
| 54. Public awareness |
| 55. None |
| 56. Having to defend the profession and fighting to limit the unregulated professionals in the community |
| 57. ,, |

Appendix 11

Summary of answers to open ended question 16 separated by respondent's identifying number

| Question 16: What threat does the certification (regulation) of kinesiology pose to your health profession |
|---|
| 1. None |
| 2. don't know |
| 3. None |
| 4. Kins have been certified for many years - I think you mean "regulation." |
| 5. None |
| 6. None - currently operating as a Kin. |
| 7. None - I see a great potential for working together on chronic disease management (i.e. osteoporosis programs, asthma programming, COPD programming, smoking cessation, depression, prevention of childhood obesity etc) |
| 8. No idea. |
| 9. Unknown |
| 10. ,, |
| 11. None |
| 12. None |
| 13. None I am one |
| 14. None |
| 15. None, |
| 16. uncertain, |
| 17. None that I can think of |
| 18. They could augment the health promotion messages we provide to public, with support programs. |
| 19. Increased competition in some sectors, where scope of practice will be seen to be similar to OTs. |
| 20. Our athletes might get trained by them and it be covered by OHIP, which means free training. (very difficult to compete with |
| 21. Not applicable |
| 22. n/a |
| 23. No threats |
| 24. ,,, |
| 25. None |
| 26. None |
| 27. None |
| 28. None |
| 29. Infringement of scope of practice, Diverting of patients/clients |
| 30. ,,, |
| 31. I don't think it poses in threat if anything it helps personal trainers or health professionals in their profession. |
| 32. ,,, |
| 33. ,nursing union will be up in arms |
| 34. That is my profession. |
| 35. none |
| 36. None |
| 37/38. There is an army of nurses trying to promote physical activity. They are very powerful and do not like any other professions because they think they can do everything |
| 39. None |
| 40. Perception that the same services can be gained through employing a kinesiologist at a lower price. |
| 41. not sure |
| 42. Somewhat of a threat, depends on how well they are accepted for funding be extended health and MVA insurance companies, and if so whether their rates happen to undercut those established by our regulatory college. |
| 43. None |
| 44. n/a |
| 45. Not sure |
| 46. None |
| 47. none |
| 48. Chiropractors have long been the primary gatekeepers regarding hands-on neuro-musculoskeletal health services. |

| |
|--|
| With the increase of RMT's practicing and now Kinesiologists and of course PT's already being established for some time, there is likely a competitive strain. Was all this really necessary. There may be public confusion over roles |
| 49. Some jobs for Nurses transferred to kinesiologists. |
| 50. similar and overlapping scope of practice |
| 51. n/a |
| 52. so I do not see it as a threat to the fitness industry that I work in |
| 53. None |
| 54. None |
| 55. unsure |
| 56. None |
| 57. ... |

Appendix 12

Summary of answers to open ended question 17 separated by respondent's identifying number

| Question 17: What new opportunities will be realized by the Certified Kinesiology that may not have existed previously |
|---|
| 1. Better opportunity to be included in health care teams - family health networks. |
| 2. We may use them if they are registered |
| 3. Multidisciplinary approach to solving client/patient issues and challenges |
| 4. Increased prevalence within multidisciplinary health care teams: Family Health Teams, Diabetes, Obesity, Cardiac Rehab. Ergonomics, professional personal training services. |
| 5. I don't know |
| 6. I look forward to an extended network of referrals among other health professionals, and also to the ability to work actively in the prevention/training regarding MSD prevention and related changes in provincial legislation. |
| 7. Educational roles within health care agencies and institutions especially in health promotion, prevention of disease and chronic disease management |
| 8. perhaps greater insurance coverage therefore, greater public uses of these professionals. being able to work independently, perhaps in their own clinic? |
| 9. ,,, |
| 10. , , |
| 11. Having it as part of peoples\ individual health benefit services |
| 12. Not sure... |
| 13. More therapy work; |
| 14. ,, |
| 15. more job opportunities as large health institutions will likely be more willing to hire CKs because they are a regulated body with a more strongly defined scope of practice. exposure/awareness by the public/lay person will hopefully increase private CK hiring. |
| 16. ,, |
| 17. really don't know |
| 18. There hopefully would be more active opportunities to entice them to come work for public health etc, if we knew the benefits. That is more employers would see the benefit of hiring them. |
| 19. ,,, |
| 20. More people to work with. |
| 21. ,, |
| 22. n/a |
| 23. They are more needed and useful in today\'s society than ever--due to people\'s lack of self-health awareness--how so many people today are living in such an unhealthy life-style and not understanding why they are prone to more injuries and not knowing the proper method to get back on track again. |
| 24. ,,,, |
| 25. insurance coverage |
| 26. Need to work together - can not be the expert in everything! With overweight and obesity on the rise - more opportunities for kinesiologists in health promotion positions |
| 27. increased programming in public health and family health teams |
| 28. increased options for treatment with more diverse team of health professionals |
| 29. Interprofessional collaboration, Expand availability of service, Cross referral of patients/clients, |
| 30. ,,, |
| 31. in this profession Kinesiologist could conduct workshops on lots of different subject pertaining to exercise and health. |
| 32. ,,,, |
| 33. ,,, |
| 34. Collaboration of Kinesiologists as members of multi-disciplinary health care teams. |
| 35. may experience greater acknowledgement by other health professionals that certified kinesiologists have added value to the interprofessional mix |
| 36. Kinesiologistst will be able to work indepedently in the Motor vehicle accident sector as the Regulated Health Care Provider title holds alot of weight. Although more than capable of completing weork site assessments, ergonomic assessments, in home assessments and exercise programs however since they were not regulated these file would go to Chiropractors or Occupational Therapists. |

| |
|--|
| 37/38. I think that anyone who teaches fitness classes or recommends physical activity should have a degree. Certified Kinesiologists could and should be managing/supervising fitness leaders in clubs, and training others to do things right. The fitness industry in our country is a mess. |
| 39. I think that certified kinesiologists have valuable skills that can be used in the chronic disease prevention field and should not only pursue regulated health professional status but also funding from government sources so that physical activity counselling can be provided to the public just as nutrition counselling is by dieticians. Kinesiologists are a perfect fit with the interdisciplinary teams that exist within Ontario's Community Health Centres and Family Health Teams. |
| 40. Opportunity to bill directly through many insurance systems. |
| 41. not sure |
| 42. More ability to practice independently rather than working under a physio or chiro. |
| 43. It should open up more doors within other health organizations to work in conjunctions with kins for a win/win relationship. |
| 44. freeing up of health care dollars by the services of kinesiologists preventing or delaying more costly treatments. |
| 45. ,, |
| 46. we will have more confidence on their skill set |
| 47. don't know |
| 48. ,, |
| 49. New job opportunities to provide overall support to health programs |
| 50. Acceptance into more primary roles |
| 51. Greater access to the profession by individuals seeking to enhance/maintain their health status |
| 52. For those who are enrolled in physical education programs, kinesiology provides another career opportunity for graduates. This will also provide greater credibility amongst their future work colleagues in the clinical/hospital settings. |
| 53. with certification there will likely be more acceptance from other health care workers and therefore greater opportunity to work in collaborative settings |
| 54. New avenues that had been closed to them by the public harecare system. |
| 55. Unsure |
| 56. ? |
| 57. ,, |

Appendix 13

Summary of answers to open ended question 18 separated by respondent's identifying number.

| Question 18: If you could provide advise to the collective group of Certified Kinesiologists what would it be? |
|--|
| 1. In theory the other reg. professions do but the driving force of the service needs to come from the public. Make sure the general public understands the service. Market, Market, Market...did I say Market the service..... |
| 2. good luck |
| 3. Never underestimate the power of a determined Kinesiologist |
| 4. Be confident in your skills, knowledge and abilities. Be proud of your profession. Treat all clients and patients to the best of your ability. Emphasize quality of service. Maintain your continuing education, maintain a member of the OKA. |
| 5. Public awareness is key |
| 6. Realize that we are about to begin an era where the demand for Kinesiologists is going to skyrocket. The value of a Kinesiologist in the modern workplace will be high, even if just measured against the reduction in lost time or increase in productivity. Pick an area of specialization and a target demographic who is in need of those services, and actively educate. I have found that if you bring the message to employers, and show the long term value of the service you can provide, the opportunities are abundant. |
| 7. Prove yourselves with well-researched evidence! Become excellent adult educators (familiarize yourself with stages of change and adult education techniques) and motivators of changing behaviours! |
| 8. keep your mind open to a team approach. then incorporate business practices in your education should certified kinesiologists have opportunities to open their own private practices. |
| 9. Please educate other professionals of your education background and your scope of practice so that other healthcare professionals could better understand your profession. |
| 10. |
| 11. To help market and advertise their new achievement and status |
| 12. - word of mouth is very powerful & with more exposure, helping individuals... the good word with spread. |
| 13. Congrats, know what skills you possess and don't think that you don't have knowledge and skills you do! |
| 14. learn from some of the lessons nurses have learned over the years trying to move from a profession which was subservient to others mainly doctors and has moved towards carving out a unique and collaborative professional relationship with all disciplines |
| 15. create a specific niche that doesn't overlap with similar professions. |
| 16. go into it with the idea that it will take time to find your niche; try not to leave the profession before you really get started |
| 17. clearly define the parameters of practice, work within those parameters, show evidence of ongoing professional development to address accountability, |
| 18. Community promotion of the role and description of their abilities. How they can assist the public. More education of the other allied health professionals and physicians |
| 19. Make employers very clear what their training and knowledge base is, given the differences in education scope that I have encountered with kins. |
| 20. Make sure the lines of what you do and don't do are clear so that you don't receive hostility from many other groups |
| 21. Not sure |
| 22. n/a |
| 23. Promote more awareness to the public--any thing is possible to get your life-style back to be as normal as possible--a step at a time. |
| 24. |
| 25. ; clarify your role and scope of practice |
| 26. Hone your health promotion - population based skills. |
| 27. |
| 28. be collaborative and non-adversarial in your negotiations and work with doctors and other health-professionals and be patient as new ways to serve patients develop (because change will probably come more slowly than you wish) |
| 29. Work collaboratively with other allied health organizations/associations Be respectful and understanding of skills and knowledge of others |
| 30. ... |
| 31. ; , |

| |
|---|
| 32. ,, |
| 33. Gain skills in health promotion |
| 34. You need to clearly establish the practical skill set (i.e. scope of practice) that you offer to the public, otherwise you will face the same fate as occupational therapy - where everything seems to relate, and in essence then, nothing is characteristic to the profession to the general public |
| 35. ,, |
| 36. Continue to maintain the standards and ethics they have always done |
| 37/38. Promote your profession, educate decision makers. At the University level, offer more courses in population health, an intro to public health, and a nursing course - so they can meet the future managers in public health before they are looking for a job. There is a huge need for people who know how to manage chronic disease - many are movement related or develop because of lack of movement. Good luck and I wish the profession was respected and that movement was valued as a mode of prevention of many diseases. Your group has a lot of work to do! |
| 39. Broaden focus from rehab, MVA work and ergonomics towards the area of physical activity promotion. |
| 40. Stick to well adults, where your expertise is a great fit. |
| 41. not sure |
| 42. Provide a comprehensive post-graduate education system that is regulated either by the college and/or professional association. Reason for this is due to the discrepancy in exposure to practical clinical situations amongst the different university Kin programs. It's incredible how much you don't learn while in school. |
| 43. Try to team up with other proven health businesses so that you can share costs, knowledge and bus practices. |
| 44. make friends with 5 docs, 2 chiro, 2 physios, a dietician, a massage therapist and set up shop. the ball is rolling down hill now. |
| 45. ,, |
| 46. Stay current on the literature and offer a unique service to clients |
| 47. don't know |
| 48. Everyone must work together respecting each others specialty and contributions and not cross respected boundaries. |
| 49. Keep foundational governing bodies for kinesiologists strong and well supported by your professionals. Provide continued awareness for what kinesiologists do (in terms of job responsibilities), educate the public. |
| 50. ,, |
| 51. Learn from the experience of other health professions re: the new regulated environment. Use this opportunity to further educate and inform other health professionals and the general public about your profession, skills and abilities and how best to utilize them in maintaining the optimal health of individuals. |
| 52. To ensure the success and recognition of this group, there needs to be an understanding of the scope of practice and roles for each health care professional within a particular setting. Certified kinesiologists will also need to learn to work collaboratively within multi-disciplinary teams and build their communication skills to be able to speak and write confidently within the medical/clinical settings. |
| 53. be prepared to work as part of a team (ie w/ a gp, cardiologist, np, dietician, chiro, physio, psych etc) |
| 54. Communicate with each other and other healthcare professionals more than is presently done. |
| 55. marketing to the general public to increase awareness and understanding of the work that you do. |
| 56. Do mass media campaigns to defend your profession and to expose unregulated professionals to the public. It's the only way to gain credibility and increase the chances that the public will request a regulated professional (especially when unregulated professionals may be cheaper). |
| 57. ,, |