

Massage Therapy Research Fund (MTRF)



Project Report - FINAL

Current Date:	January 21, 2016
Project completion deadline:	April 30, 2014
Extension granted:	November 2014
Project Title:	Exploring Utilization and Knowledge of, and Attitudes, Barriers and Supports to Evidence-Informed Massage Therapy
Amount of grant:	\$5000.00
Year grant awarded:	2013
Institution:	McMaster University
Principal Investigator (name only):	Amanda Baskwill
Co-Investigators (names only):	Kelly Dore

THE REPORT CONTENT:

Section 1 - Project overview. Please devote a maximum of one page to background, rationale and objectives, with the balance to focus on methods and outcomes. (maximum 4 pages).

Section 2 - Did the project take place as proposed? If not, briefly indicate difficulties encountered and adaptations made (maximum 1 page).

Section 3 – Information dissemination. Please provide the information dissemination plan related to the project findings. Please list all completed activities and planned activities (manuscripts, reports, conference presentations, seminars, workshops etc).

Section 4 - Project summaries. Please provide two project summaries, as follows:

- a) Lay language summary (maximum 100 words)
- b) Scientific abstract (maximum 250 words)

**Submitted the completed final report to Ania Kania-Richmond at
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Section 1 – Project Overview

Background and Rationale: “Health care [*sic*] delivered in ignorance of available research evidence, misses important opportunities to benefit patients and may cause significant harm” (Dawes et al., 2005, p. 2). There is an increasing expectation that all healthcare professionals will inform and update their professional decision-making with available research. Some of the factors driving the expectation that practice be informed by research are “the need to provide efficient, effective, and cost effective care” (Suter et al., 2007, p.109). While this expectation began in the medical profession, there is pressure for all allied and complementary and alternative healthcare (CAHC) practitioners to adopt the same standards (Suter et al., 2007; McEvoy et al., 2010).

In epistemology, there are many different ways to know information (Portney & Watkins, 2009). Each is a valid way of knowing but requires different levels of scrutiny, so some ways of knowing may be more or less desired depending on the quality of the evidence and its use. In healthcare, some concepts and approaches to treatment are accepted because of their repeated use and successful application (Leboeuf-Yde et al., 2013). These aspects of care may be known through what was thought of as ‘tradition’ or ‘authority’. However, with the evolution of science, which is considered to be a way of knowing that combines theory, or rationalism, and experiment, or empiricism, healthcare practices must strive to apply higher levels of scrutiny so that information about illness, diagnosis, and treatment is known through science or rationalism. Evidence-informed practice (EIP) requires that practitioners shift from the historical emphasis on tradition and authority and consider the science for and logic behind what they do, and gives them the skills to find, assess and apply the current research (Majid et al., 2011).

For the purpose of this study, EIP is defined as *the use of the practitioner’s experience and expertise, the patient’s values and expectations, and the best available evidence to inform clinical decision-making*. The practitioner’s experience and expertise is considered to be the knowledge that he or she has gained in entry-to-practice education, continued education, and cumulative practice experience. The patient’s values and expectations include personal values and expectations for healthcare. The best available evidence is that which best fits the clinical question of interest to the practitioner, and patient. It is expected that practitioners will analyze the evidence to determine which best suits the clinical question (Finch, 2007).

Few studies have sought ways to measure actual knowledge of the current evidence for practice. One study asked respondents whether they agreed, were neutral or disagreed with statements that reflected current evidence related to orthodontic issues (Madhavji et al., 2011). The findings of the study showed that most respondents (75%) agreed with the current best evidence. The authors suggested that this result indicated a good awareness of the current evidence for practice despite not using an evidence-based approach to practice. No other studies were found that investigated practitioners’ actual knowledge of the evidence for practice.

The limited research that exists related to massage therapy and EIP was conducted in provinces in which massage therapy was unregulated. It is possible that differences exist in attitudes toward research and EIP skills due to the more standardized education and regulation standards in a regulated province. The current study was conducted in Ontario, one of the regulated provinces in Canada. Furthermore, the concept of awareness – whether or not practitioners are aware of the evidence that supports current practice – was investigated in the current study. It was proposed that understanding practitioners’ awareness of evidence might better represent actual use of the current evidence for practice. This study was developed to build upon the previous research.

Objectives: The purpose of this study was to investigate Ontario Registered Massage Therapists’ awareness of the current evidence for practice and to identify the sources of information that inform that awareness. As such, the specific objectives of this study were to:

- 1) Describe the level of awareness of the current evidence for practice among registered massage therapists (RMTs) in Ontario.
- 2) Identify the sources of information used by RMTs in Ontario to inform their awareness of the current evidence for practice and the reported importance and frequency of use for each source.
- 3) Identify factors that influence the likelihood that a RMT is aware of the current evidence for practice.

Methods: 3.1 Overview of the Study Design

An online questionnaire-based mixed-methods cross-sectional study was conducted. Registered massage therapists in Ontario, who held an active certificate at the time of notification of the questionnaire, were invited to participate. The questionnaire consisted of quantitative and qualitative response questions. Reminder emails were sent to those RMTs for whom emails had been collected. Incentives to encourage completion were offered periodically during period of the study. Data collection for the study began on September 11th, 2013 and closed on November 1, 2013.

The population of interest was registered massage therapists who, at the time of notification, had an active general certificate with the College of Massage Therapists of Ontario. To obtain a list of the population, publically available information was collected from the CMTO's Public Register (College of Massage Therapists of Ontario, 2013b) and entered into a spreadsheet. For most registrants, name, email address and business mailing address were available for their primary practices.

At the completion of the collection of contact information and subsequent online search, 7,422 email addresses had been obtained. In addition, 289 contact forms and 99 Facebook profiles were identified. This left 2,775 RMTs with no means of electronic contact. Two thousand, seven hundred and twelve of those with no email had a mailing address (98%). Eighty-seven registrants had no contact information publicly available.

On September 6, 2013, a notification was sent to all of the registered massage therapists for whom an email address had been retrieved letting them know that the questionnaire would be released in the next week. On September 11th, 2013, an email announcing the launch of the questionnaire, providing the website URL, and inviting participation was sent to the same group of potential participants. At the same time, postcards were mailed to the RMTs whose only contact information was a mailing address. Finally, invitations to participate and the website URL for the questionnaire were sent to potential participants with a Facebook profile or clinic contact form.

The original questionnaire consisted of 65 questions with some questions containing multiple parts. The questionnaire was mainly adapted from questions in a previous study on evidence-informed practice (Melnik et al., 2008). A review of the available literature containing examples or copies of evidence-informed practice questionnaires provided additional items for consideration related to attitudes toward EIP and EIP skills. The questionnaire was distributed to 13 individuals in the massage therapy profession and eight questionnaires were returned. The participants in the pilot group were chosen for their diverse exposure and interest in EIP, role in the profession, and number of years involved in the profession. Of the respondents for the pilot testing, 63% of them were female, the average age was 38.5 years (SD ± 11.2), average years in practice were 10.3 years (SD ± 9.7), and 75% were members of the Registered Massage Therapists' Association of Ontario (RMTAO). Participants in the pilot-testing group had roles in education, research and practice, with some participants holding roles in two or three of these areas.

During the pilot study, participants were asked to answer each of the questions and then comment on the clarity and relevance of the question. Space was also available for any additional comments. The feedback provided by the participants resulted in significant changes to the questionnaire. The revised final questionnaire contained 62 questions grouped within six sections.

The first section of the questionnaire contained 11 demographic questions including gender, age, type of practice focus, practice setting, presence of other healthcare practitioners, and membership in the professional association. The second section on awareness of evidence and sources of information consisted of 32 questions. Fifteen of those questions were statements regarding the current state of evidence for massage therapy practice. For example, participants were given the statement "Post-event massage improves blood flow in athletes". Ten statements related to the current state of the evidence for massage therapy practice were created using *Massage Therapy: Integrating Research and Practice* (Dryden & Moyer, 2012). Five additional questions were created based upon myths or trends in the profession. Participants were then asked to indicate the extent to which they agreed with that statement from strongly agree to strongly disagree. Choices also included "Do not know" or that they

“Believe there is insufficient evidence” for the statement. Each statement also had a corresponding question asking participants to indicate which sources of information informed their awareness of the topic in question. They chose between recent research studies, cumulative professional experience, other massage therapists, other healthcare professionals, professional magazines, massage therapy entry-to-practice education, or continued education. They could also choose “Other” and write in a source of information. The final two questions of this section asked participants to rate the aforementioned sources of information regarding their overall importance and frequency of use.

The third section of the questionnaire consisted of one open ended question in which participants were invited to describe what evidence-informed practice meant to them. Section four asked nine questions related to practitioners’ attitudes toward EIP. Section five asked five questions related to practitioners’ confidence in their EIP skills. The final section asked three open-ended questions to elicit their thoughts on factors that support and prevent the awareness of evidence for practice. An opportunity for final comments was also provided.

All data were entered into an Excel spreadsheet and then converted to the Statistical Package for the Social Science (SPSS) for analysis purposes. Descriptive statistics were used to analyse the overall characteristics of the sample. Means and standard deviations were calculated for age and number of years in practice. Frequencies were calculated for the remaining categorical demographic characteristics.

A multiple regression analysis was conducted to determine which factors (demographic items, attitude score or capacity score) predicted higher awareness of the current evidence for practice, as evidenced by the awareness score. With the sample size collected (n=1615 for the awareness questions), 10 factors can be included in the analysis while still respecting commonly accepted practises of including one factor for every ten participants (Norman & Streiner, 2008).

Finally, the average rank of seven sources of information was calculated for frequency of use and perceived importance.

The Hamilton Health Sciences/ McMaster Health Sciences Research Ethics Board granted ethical approval for this study.

Results: A total of 10,385 registered massage therapists with general certificates were contacted to participate in the study. Of the total population contacted, 3,656 potential participants were contacted a single time through either Facebook message, contact form on the clinic website or postcard. There were 131 responses collected through this data collection strategy. The remaining 6,729 were contacted by email and tracked through SurveyMonkey. In this subset of the population, 99 email messages bounced back and 194 people opted out of the questionnaire. There were 1,699 responses collected through this data collection strategy.

In total, 1,830 participants began the questionnaire. Fourteen people began the questionnaire but at the onset did not consent to the study. Further, forty-two participants consented to the study in the first question but provided no additional answers. There were twelve participants who asked for their responses to be withdrawn from the study. This resulted in 1,762 individuals who provided responses to the questionnaire; a 16.9% response rate from the total population of active registered massage therapists in Ontario who were able to be notified of the study at least once.

The average age of respondents was 39 years (SD =10.15; n=1734). The majority of respondents were female (80%, n=1750). Frequency analysis shows that the most common highest level of education in this sample was a Bachelor’s Degree (30.3%; n=1755). Of the respondents, 3.7% chose ‘other’ which included various continuing education courses. The year of graduation of participants ranged from 1969 to 2013, with a mode year of graduation of 2011 (n=1754). The majority (82.1%) graduated from a private career college. On average, respondents were in practice for 8.83 years (SD=6.79; n=1756).

Respondents were asked to describe their primary practice, where primary practice is considered to be where a practitioner focuses the majority of his or her time or sees the majority of his or her patients. Most (58.8%, n=1749) reported a multi-practitioner practice rather than a sole practitioner practice. Figure 3 shows the percent distribution of the primary practice settings with multi-disciplinary practice as the most common setting reported (42.2%; n=1757).

Within the category of multi-disciplinary practice, the most frequently reported practitioners within this setting were chiropractors (n=481), physiotherapists (n=324), and acupuncturists (n=324). Figure 4 shows the frequency distribution of the practitioners within multi-disciplinary practices. The majority of respondents to the survey (57%, n=1737) were members of the Registered Massage Therapists' Association of Ontario (RMTAO).

Participants were asked to rate seven sources of information from most important (7) to least important (1). Figure 6 shows the rating average of each source of information by perceived importance. Based on the responses to this question, respondents rated cumulative professional experience as the most important ($x=5.97$), followed by recent research studies ($x=4.74$) and then education (continued education [$x=4.31$], and entry-to-practice education [$x=3.9$]; n=1617).

When participants were asked to rank the sources of information by the frequency of use, the order of sources changed slightly. Again, cumulative professional experience was, on average, ranked most frequently used ($x=6.2$), but this time it was followed by other RMTs ($x=4.28$) and then education (continuing education [$x=4.05$] and entry-to-practice education [$x=3.83$]; n=1483). Figure 7 shows the rating average of each source of information by frequency of use.

Discussion and Conclusions: The sample included in this study is believed to be a representative sample from the registered massage therapists of Ontario who maintained an active general certificate in 2013. According to the College of Massage Therapists of Ontario (personal communication, May 2014), the average age of registrants in 2013 was 39, 79% were female, the most frequently reported highest level of education was Bachelor degree (24%), the majority had graduated from a private massage therapy program (84%), and on average they had been in practice for eight years. Forty-seven percent of registrants were members of the Registered Massage Therapists' Association of Ontario (Registered Massage Therapists' Association of Ontario, 2014). These are similar to the sample that participated in this study, despite only a 16.9% response rate.

Overall, there was a tendency for respondents to agree or strongly agree with positive statements about massage therapy, or disagree or strongly disagree with negative statements, regardless of the actual correctness of the statement based on current best available research or the combination of clinical practice and trends in the literature. This may have inflated the score of those respondents who were not aware of the current evidence but believe strongly in the benefit of massage therapy. For example, 94.5% of respondents (n=1708) indicated they either agreed or strongly agreed with the statement that "Massage therapy treatment of low back pain is more effective when clients/patients are educated about self-care and exercise", which is a true statement about massage therapy practice based on the current research (Dryden & Moyer, 2012). Similarly, 81.3% of respondents (n=1649) indicated they either agreed or strongly agreed with the statement "Massage therapy applied directly to a mature scar for five minutes can significantly improve the quality of scars (for example, reduce adhesion and improve pliability of the scar)." This statement, however, is false based upon the current literature and biological theory (Dryden & Moyer, 2012). In contrast, only 5.5% of respondents indicated they either disagreed or strongly disagreed with this statement, indicating that there is a gap in the current knowledge of registered massage therapists on this topic.

The importance of cumulative professional practice and frequency of its use to inform clinical decision-making is not surprising. And, in practices where cumulative professional practice includes consultation with the recent research, professional colleagues and previous education, the practitioner may even be employing the principles of evidence informed practice. However, practices where cumulative professional practice included solely empirical evidence and out-dated previous education, there is the potential for the patient to be put at risk.

Section 2 - Did the project take place as proposed?

The study took place as proposed. The research questions were further clarified from the original five in the application to the two presented above in Section 1. The questionnaire was modified based upon feedback gathered from a group of 13 individuals from the profession.

Section 3 – Information Dissemination

The information from this project has been disseminated through publication and presentation.

Presentation:

Research Awareness of Registered Massage Therapists in Ontario
November 2014
INCAM Symposium

Publication:

Baskwill, A. J., & Dore, K. (2015). Exploring the awareness of research among registered massage therapists in Ontario. *J Complement Integr Med*. doi:10.1515/jcim-2015-0006

Baskwill, A. (In Press). A guiding framework to understand relationships within the profession of massage therapy. *Journal of Bodywork and Movement Therapies*. doi:10.1016/j.jbmt.2015.12.003

Section 4 – Extension request

Lay Language Summary (100 words)

This study sought to understand registered massage therapists' (RMTs) awareness of the current evidence for practice and to identify sources of information that inform that awareness. Ontario RMTs were invited to complete an online questionnaire. The results of the awareness score showed opportunity for improvement and require further investigation. Future research should explore other factors, which may show a better model of predictability of the awareness score. It is proposed that awareness of the evidence for practice might be a better predictor of use of evidence in practice than self-reported attitude or capacity but further research is needed.

Scientific abstract (250 words):

Background: Evidence-informed practice (EIP) is part of a healthcare ethos, in which practitioners apply evidence together with their expertise contextualized by the unique values of the patient. Studies about EIP focus on attitudes or confidence related to EIP. Individuals' abilities to assess their own knowledge or performance are low. Therefore, a positive rating of attitude or confidence does not likely portray accurately the EIP knowledge or ability of the practitioner.

Objective: This study sought to understand registered massage therapists' (RMTs) awareness of the current evidence for practice and to identify sources of information that inform that awareness.

Methods: An online questionnaire-based mixed-methods cross-sectional study was conducted. Ontario RMTs were invited to participate. This report focuses on the results of the quantitative analysis.

Results: In total, 1,762 questionnaires were included; a 16.9% response rate. A multiple regression showed four factors that explained 4% of the variation seen in the awareness score: membership in the professional association (RMTAO), EIP attitude score, post-graduate education, and home-based practice.

Of seven sources of information provided, respondents rated cumulative professional experience as most important, followed by recent research studies and education. Cumulative professional experience also rated as most frequently used, followed by other RMTs and education.

Conclusions: This study investigated the level of awareness of evidence of RMTs. The results of the awareness score showed opportunity for improvement and require further investigation. Future research should explore other factors, which may show a better model of predictability of the awareness score. It is proposed that awareness of the evidence for practice might be a better predictor of use of evidence in practice than self-reported attitude or capacity but further research is needed.