

NCB/MTF Research Webinar Series



Part I: Why Research?

with
**Donna Sarvello &
Doug Nelson**



Today's Presenters

Donna Sarvello, LMT, BCTMB, MBA

- VP of Educational Support, NCBTMB
- I've worked in the massage therapy profession for over 20 years
- Through research, I've found the longest earthworm grew to 22 feet (found in South Africa!)



Doug Nelson, LMT, BCTMB, CNMT

- President, MTF
- In the massage profession for 40 years
- New Cello student



Brief Intro to NCBTMB

- Non-profit organization
- Our mission: ***Define and advance the highest standards within the massage therapy and bodywork profession.***
- Programs/opportunities NCBTMB provides:
 - Board Certification in Therapeutic Massage & Bodywork (BCTMB)
 - Specialty Certificates
 - Approved Providers for Continuing Education
 - Assigned School Code Program
- For more information, visit www.ncbtmb.org



Brief Intro to MTF

- Non-profit organization
- Our mission: **Advancing the knowledge and practice of massage therapy by supporting scientific research, education, and community service.**
- Some of the many programs/opportunities MTF provides:
 - Research projects
 - Research conferences
 - Educational programs focused on research literacy
 - Community Service grants
 - Grants and contests for both practitioners and students
- For more information, visit www.massagetherapyfoundation.org



NCB/MTF Collaboration

- Both organizations are deeply committed to advancing standards
- We want to provide therapists like you with additional opportunities to enrich your understanding of research
- Over the course of this **3-Part series**, we hope to help you identify:
 - Why research is important
 - What research means to our profession and others
 - What research is (defining research)
 - How to find quality research resources
 - How to apply research to your everyday practice
 - And more!



How to Earn 1 CE Today

- MTF is an NCBTMB Approved Provider
- MTF is offering the opportunity to earn 1 CE for today's webinar (FREE!)
- Details on how to earn 1 CE for today's webinar will be provided at the end of the broadcast
- **Stay tuned!**





What is research and why does it matter?

Research is...



- A collection of data
 - Testing
 - Gathering evidence
 - Reviewing
 - Discussing
 - Testing results
 - Concluding

re·search

/ˈrē,sərCH,rēˈsərCH/ 

noun

1. the systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions.

Research is also...



- A way of more deeply understanding the work that we do
- Letting things unfold—we do not determine the conclusions!
- A way of learning from the experience of others
- Data to stand on (for the public, healthcare providers, and other professions)

Examples of Research



There are several examples of research out there...

- Case Reports
- Observational Studies
- Interventional Studies
- Systematic Reviews



$\nabla^2 \phi = -\omega$

$= im_c^0 \mathcal{R}_c^0 \left\langle \frac{\bar{\phi}_{b0}^*}{r} [\partial_r \Psi^{(0)} \bar{q}_0 - \partial_r q^{(0)} \bar{\Psi}_0] \right\rangle$

$q = -2\epsilon_0 \partial_z \psi \quad \phi_1^c = i \sum_p E_p C_{2m_c^0; p}$

$F_2 = im_c^0 \mathcal{R}_c^0 \left\langle \frac{\bar{\phi}_{b0}^*}{r} [\partial_r \Psi^{(0)} \bar{q}_0 - \partial_r q^{(0)} \bar{\Psi}_0] \right\rangle$

s c i e n c e

wonder

a r t

$\Psi^{(0)} \bar{q}_0 - \partial_r q^{(0)} \bar{\Psi}_0 \rangle, \quad Nu = \frac{m}{2\pi\sigma v}$

$F_2 = im_c^0 \mathcal{R}_c^0 \left\langle \frac{\bar{\phi}_{b0}^*}{r} [\partial_r \Psi^{(0)} \bar{q}_0 - \partial_r q^{(0)} \bar{\Psi}_0] \right\rangle$

$\mathcal{P} \equiv \frac{\epsilon_0 \eta}{\rho \sigma d} \quad \phi_1^c = i \sum_p E_p C_{2m_c^0; p} \quad \nabla^2 \phi$

$im_c^0 \mathcal{R}_c^0 \left\langle \frac{\bar{\phi}_{b0}^*}{r} [\partial_r \Psi^{(0)} \bar{q}_0 - \partial_r q^{(0)} \bar{\Psi}_0] \right\rangle$

Embracing the Science Does Not Mean Abandoning the Art



Why does MT research matter to other healthcare professionals?

Why Research?



- Other professionals refer patients/clients to massage therapists—**research data engenders trust.**
- Massage therapy works to affect change in the body—**we are a part of integrative healthcare.**
- To fully participate in integrative health care (and we have an important contribution to offer)—**we must speak the language of science.**



Why does *MT* research matter to the public?

Why Research?



- The public is looking for **credible, complementary approaches** to consider. Research helps them make **informed decisions**.
- The opioid crisis is an example of how pain management is a national concern.
- Musculoskeletal issues are in the top three reasons people seek medical care. Massage has a role to play. **Data changes the conversation.**



Why is *MT* research important for the practicing therapist?

Research and You



- Clients are often most helped not by the execution of a technique, but by the **depth of understanding** of the therapist.
- In that way, research is seldom prescriptive. It gives you **deeper insights**, but you still have to make **clinical choices**.
- From case reports to randomized studies, research is a way to learn from the experiences of others. In essence, **it is shared knowledge**.
- The more therapists read and understand the literature, the more they apply critical thinking to their practice. **What am I doing and why?**



**What would you say to those
still not convinced why
research is important?**

#1: Shared Knowledge

I have been practicing for over forty years, but each week I am faced with something I have never encountered...



#1: Shared Knowledge Cont'd



When you think about your effectiveness with any specific issue, how many clients have you successfully treated using that particular approach?



#2: Higher Level of Accuracy



While we can share insights with each other, research is held to a higher standard of accuracy.



Reliable
Not Valid



Low Validity
Low Reliability



Not Reliable
Not Valid



Both Reliable
and Valid

#3: Things Change!



- Rest and LBP
- Fascial Sensitivity and LBP
- Orofacial Pain and Neck Discomfort
- Central and peripheral sensitization



#4: The Researcher Mentality



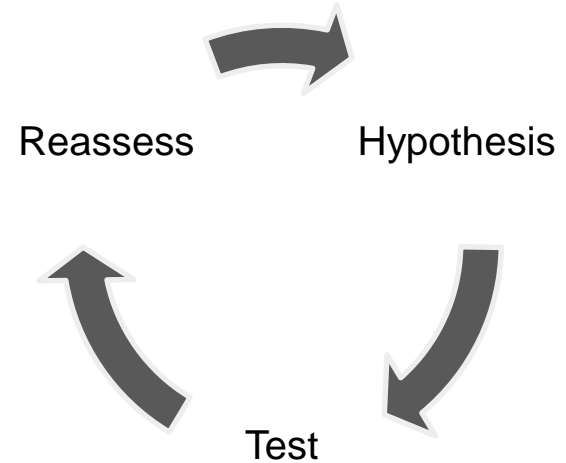
- Thinking like a researcher can help strengthen knowledge and skills
- Think about an aspect of clinical practice that would be affected by thinking like a researcher...



#5: Gain Deeper Understanding



- Research begins with a clear question
- What follows is an intervention based on the question
- The response is then measured
- **Ask yourself:** Isn't this what we do in the clinic?



#6: Shared Language w/ Others



- Shares a language with other health care professions
- If we want them to understand us and what we do, we must speak their language
- Perhaps we should first seek to understand, rather than hope to be understood.





**What would motivate someone
to get involved with research?**

Research Motivation



In the psych realm, researchers following 11,000 therapists in a 20-year longitudinal study found that what motivated therapists was:

- **Healing Involvement**
 - Personally engaged, high level empathy, feeling effective, and dealing with difficulties
- **Currently Experienced Growth**
 - Sense of learning and deepening our understanding in every session

Research Motivation



It seems it boils down to...

Techniques vs. Understanding

Perhaps this is the disconnect?



**Where can I go to look at things
others have completed?**

**What does the end result look
like?**

IJTMB.org

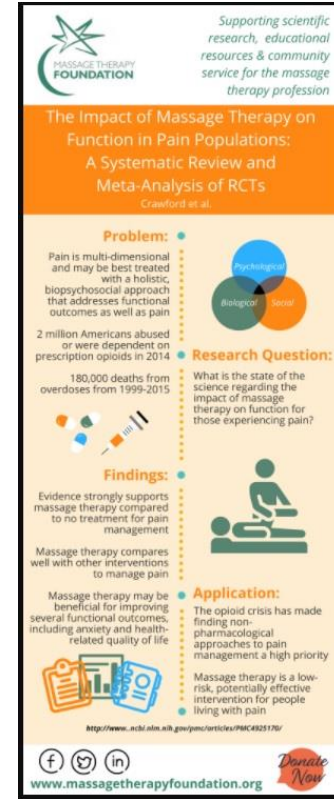


INTERNATIONAL JOURNAL OF
Therapeutic Massage & Bodywork
RESEARCH EDUCATION PRACTICE

- Free, open-access journal
- The official journal of the MTF and RMTBC (*Registered Massage Therapists' Association of British Columbia*)
- Peer Reviewed
- PubMed indexed

Infographics/Visual Abstracts

- Share them with everyone!
 - Clients
 - Colleagues
 - Other health care providers
 - Family and friends on social media



Research Posters



Available for free!

<http://massagetherapyfoundation.org/massage-research/research-posters/>

The "4th Hamstring": Effects of Adductor Magnus Treatment on Hamstring Length During Knee Extension

Nelson, Douglas M.D., and Ivaska, James M.D.

Introduction

The adductor magnus is often called the "4th hamstring." This study was designed to observe the effects of treating the adductor magnus on hamstring length measured by knee extension.

Background:

The adductor magnus is a muscle of the medial thigh originating at the ischial tuberosity and ischiofemoral vein and inserting at the linea aspera and adductor tubercle of the femur. The obturator and ischiofemoral veins are the adductor magnus. The actions of the adductor magnus are hip flexion, adduction and extension of the hip. The adductor magnus is specifically recruited when the hip must move from flexion to extension quickly (ie. exploding from the blocks in a sprint race).

Trigger points in the adductor magnus can refer pain to the groin or ischial tuberosity. Often times when the adductor magnus will feel like a high hamstring strain. The adductor magnus is a very important muscle for track athletes and power lifters.

Objective

The purpose of this study was to determine what effects, if any, treatment to the adductor magnus had on hamstring length. Multiple clinical observations demonstrated that treatment to the adductor magnus could increase knee extension range of motion. This was puzzling due to the adductor magnus's lack of action at the knee joint. This study hoped to determine if these observations were a coincidence, or if treatment to the adductor magnus may be a viable option for increasing hamstring length.

Taking a translational philosophy in our study we were mostly concerned with the possible clinical differences we could make from our results. Our goal is to create studies that deepen our understanding and, most importantly, have direct impact on the health of the clients we serve.

Method

Study Design

An interventional study design was implemented to determine the effects of the adductor magnus on hamstring length. A total of 80 subjects (male=48) were recruited at 6 different locations. Of those, 64 were placed in a treatment group (n=27, n=17) and 16 were placed in a control group (n=5, n=11). Five therapists were instructed how to measure hamstring length and treat the adductor magnus with neuromuscular techniques. A 12 inch goniometer was used to measure knee extension. A supervising therapist oversaw the instruction to ensure consistency.

Procedure

- Measure hamstring length during knee extension bilaterally with hip and knee at 90 degrees flexion (see figure).
- If hamstring length was restricted (<150 degrees) treat adductor magnus with cross fiber friction and digital compressions focusing on tender points for 10 minutes.
- Subjects in the control group were asked to lay down and relax for 10 minutes.
- Re-measure hamstring length.

Treatment

The athletes worked with the subjects for 10 minutes treating only the adductor magnus in a side lying position with neuromuscular techniques.



Results

Treatment Group

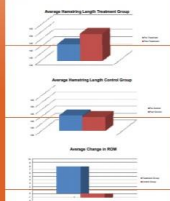
Post-treatment measures were on average 7.71 +/- 0.81 degrees increase after adductor magnus treatment for the treatment group. Increase was seen in 92% of post-treatment measurements: 44% returned to "normal range" (>= 150 degrees), 31% of treatment subjects increased hamstring length by 10 degrees.

The treatment group had a maximum increase of 34 degrees, a median increase of 7 degrees, a mode of 6 degrees, and a minimum of a decrease of 3 degrees.

Control Group

Measures for the control group were on average -1.09 +/- 1.83 degrees. Only 13% of the control group returned to normal range and only 10% increased by 10 degrees.

The control group had a maximum increase of 14 degrees, a median decrease of 2 degrees, a mode of decreasing 6 degrees, and a minimum of a decrease of 17 degrees.



The above graphs illustrate changes in hamstring length to both treatment and control groups. Figure 3 illustrates the average change in hamstring length measured by the goniometer. Figure 2 illustrates the average length of the hamstring length measured by the goniometer. Figure 1 illustrates the average length of the hamstring length measured by the goniometer. Figure 4 illustrates the average length of the hamstring length measured by the goniometer.

Conclusions

As the above data shows, treatment to the adductor magnus seems to be able to increase hamstring length during knee extension. The treatment group received significant benefits in range of motion increases which could be important in any clinical treatment session. An inability to fully extend the knee could affect gait patterns, athletic ability and/or provide for trigger point development and muscular discomfort.

Coming from a translational perspective this study provides insight for the clinician when treating range of motion problems at the knee. If a client presents with limited knee extension this study shows they may be able to address issues in the adductor magnus to deal with those issues. Similarly, if hamstring treatment is not producing desired results, perhaps it is important to look into the 4th hamstring.

Looking Ahead

This project had shortcomings that should be addressed in future research. The number of practitioners performing the treatments may have added inconsistency to the procedures. Furthermore, a larger control group should be used in future studies. The authors believe that it would be prudent to add comparison groups, such as a stretching group, to a study to help determine best practice for clinicians.

Acknowledgments

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How to Earn 1 CE



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To earn 1 CE for today's webinar, please visit:

<http://massagefoundation.org/2019webinar/>

*Complete the brief form and quiz to earn 1 CE.
MTF will provide Certificates of Completion via email.*



Q&A Time!

Q&A



How does Massage Therapy Foundation affect the massage industry?

- Sherry

Q&A



Why should I become Board Certified? How does being Board Certified contribute to research?

- Charlene

Q&A



I own a MT business and still practice part-time, but I want to learn how I can further contribute to research. How and where can I start?

- Deanna

Q&A



How do you feel research will support massage therapy to be recognized by insurance companies?

- Anita

Q&A



Where can I find opportunities to participate in research studies?

- David

Q&A



Can the 1 CE from today's webinar be applied toward my Board Certification Renewal CEs?

- Michelle



When is the next NCB/MTF Webinar?

Future Webinars

We hope you will join us again for Parts II and III!

- **Part II: What is Research?**
 - *Summer 2019*
- **Part III: How to Find Quality Resources**
 - *Fall 2019*

Official dates TBA



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