

July 15, 2015

Pat Murdo
Legislative Services
Staff for the Economic Affairs Committee

Ms Murdo,

Based on the email we received, we understand that you would like a written explanation of public safety concerns, credentialing of instructors, the definition of dry needling, and its relation to the practice of acupuncture. Christian and Brian have put together answers to your questions as well as additional information that we feel is relevant to the discussion. As noted in earlier emails, you can also find well written answers to some of these questions in Chapter 5 of Jan Dommerholt's text book on dry needling that Brian forwarded on to you. We have also received input from Jeff Moore, DPT, OCS, MTC, Cert. SMT and have included a reference list in Appendix A.

Introduction:

High quality peer-reviewed literature has demonstrated that dry needling is effective for a wide variety of neuromusculoskeletal disorders commonly treated by physical therapists. Research supports the use of dry needling for low back pain¹⁻⁴, neck pain^{5,6}, headaches^{7,8}, shoulder pain⁹⁻¹¹, knee osteoarthritis¹², plantar heel pain¹³, lateral epicondylalgia^{14,15}, Temporomandibular dysfunction^{16,17}, reduction of post-operative pain¹⁸, and other systemic ailments such as fibromyalgia¹⁹ and myofascial pain syndrome²⁰⁻²⁸. Additionally, there have been several systematic reviews performed on dry needling over the past two decades^{26,29-33}.

The safety of dry needling by physical therapists has also been demonstrated. In a recent prospective trial, the risk of serious adverse event was estimated at less than .04% which is contrasted to the risk associated with aspirin (18.7%), Ibuprofen (13.7%), and Paracetamol (14.5%)³⁴. The safety of dry needling and acupuncture have been extensively evaluated with studies by Brady³⁴, Yamishita³⁵, Witt³⁶, Ernst³⁷, and White³⁸. Each of these authors concluded that the risk of serious adverse event resulting from dry needling or acupuncture is very low. More detailed discussion can be found in the section titled Relative Risks.

Definition of dry needling:

As quoted from the support statement on Dry Needling by the American Academy of Orthopedic Manual Therapy, *"Dry needling is a neurophysiological evidence-based treatment technique that requires effective manual assessment of the neuromuscular system. Physical therapists are well trained to utilize dry needling in conjunction with manual physical therapy interventions. Research supports that dry needling improves pain control, reduces muscle tension, normalizes biochemical and electrical dysfunction of motor endplates, and facilitates an accelerated return to active rehabilitation."*

History of this discussion:

Christian and Brian have been involved in every committee meeting and Board of PT Examiners meeting regarding dry needling dating back to Jan 28, 2011. In the fall of 2011, the Board of Medical Examiners (BOME) and the Board of PT Examiners (BOPTe) formed a joint committee to explore the legal precedent for including dry needling in the scope of PT practice and to attempt to form a bridge of collaboration between the acupuncture and PT communities. Committee members included physician and acupuncture representatives from the BOME, PTs from the BOPTe, and members from the community representing both PT and acupuncture interests. Ian Marquand, the board administrator for the BOME, moderated the meetings.

The attorneys for both boards, Anne O’Leary and Gene Allison, presented arguments that there was legal precedent for the expansion of PT scope of practice to include dry needling, citing examples of other scope of practice expansions in the state and AG rulings similar in nature to this issue. The committee disbanded in recognition that it had accomplished its primary goal, though the members on the committee representing acupuncturist remained adamant that dry needling should not be part of PT practice.

Here is a summary that is in the public minutes from the last meeting on December 13, 2011:

“Ms. Connor, Health Care Licensing Bureau Chief, reviewed the Subcommittee’s progress to date, after acknowledging the high level of competence, skill and passion of all of the Subcommittee members. She summarized the over-arching facts obtained to-date by the Subcommittee, including:

- 1) all boards are governed by the laws, statutes and rules in place for their respective professions,*
- 2) the Board attorneys – one representing the Board of Medical Examiners and one representing the Board of Physical Therapists - have agreed that the scope of practice among professions can cross boundaries, and that more than one profession can do a certain type of procedure,*
- 3) both Board attorneys agree that laws that govern both professions allow for the process of dry needling, and that only the board that governs a respective profession can dictate what that profession may or may not do in practice, and*
- 4) the 1999 Opinion of the Attorney General did not say that dry needling could not be performed by physical therapists.*

She continued by observing that these facts are not debated among the people who have the duty to the boards and to the profession to provide that guidance. She noted that the Subcommittee has spent considerable time and resources of all of their respective licensees in its effort to come to an agreement between the boards that dry needling is a procedure which is allowed under both professions. She concluded by addressing a key result of the Subcommittee’s meetings, namely the focusing of everyone’s efforts on improved public safety. The Physical Therapy Board intends to write rules for its profession that address this concern, and expressly invited “best practices” input to those rules from acupuncturists.”

After which the physical therapy board dry needling committee was charged with creating rules to protect the public. This committee took into account the input from the joint subcommittee meetings in their rule making process. They also sought input from the Federation of State Boards of Physical Therapy (FSBPT,) the American Physical Therapy Association (APTA) , and experts in the field including Jan Dommerholt and Edo Zylstra (minutes are available for this August 17, 2011 Dry needling committee meeting).

When these rules started through the rules review process, the chief counsel for the Schweitzer administration stopped the progression of the rules, citing concerns echoed by acupuncturists. When the Bullock administration inherited the rules processing responsibilities, the new chief counsel, Judy Bovington, requested a review of the dry needling rules issue by a new board attorney assigned to the BOPTe. Upon additional legal review, the new BOPTe attorney, Mark Jette, concluded there was enough evidence and precedent to allow the BOPTe to write rules defining minimal competencies for PTs practicing dry needling in MT.

Once the drafted rules for dry needling by PTs were submitted for public comment in the spring of 2015, the BOME met on June 4th, 2015. From our understanding based on Brian's conversation with the BOME administrator, Ian Marquand, the BOME directed the acupuncturist on the board to work with the BOME attorney, Graden Hahn (new since the 2011 BOME-BOPTe committee meeting) to comment on the draft rules. Departing from the 2011 committee conclusion, the BOME took opposition to the draft rules, essentially stating that the rules represented an expansion of PT scope of practice not appropriate for the rules writing process. In writing this opposition, the BOME also took exception to the Federation of State Medical Board's 2009 statement *supporting* overlapping scopes of practice.

Data available on safety concerns:

Physical Therapy Education:

Physical therapists are educated at the doctoral level. For the 2012-2013 calendar year, physical therapy graduate programs included an average of 3,190 contact hours which are split between in class studies, lab courses, and clinical education⁴¹. The Commission on Accreditation in Physical Therapy Education (CAPTE) criteria requires the physical therapist professional curriculum to include content and learning experiences in the behavioral, biological and physical, and clinical sciences necessary for initial practice of the profession. The entry-level curriculum must demonstrate inclusion of many topics which provide a strong foundation to the understanding and performance of functional dry needling such as anatomy/cellular biology, physiology, neuroscience, pathology, pharmacology; study of systems including cardiovascular, pulmonary, integumentary, musculoskeletal, and neuromuscular; communication, ethics and values, teaching and learning, clinical reasoning, and evidence-based practice⁴².

At the present time dry needling, while incorporated into a growing number of physical therapy programs, is not required by CAPTE for inclusion in the doctorate curriculum. Therefore, dry needling is an intervention that requires formal post-graduate training and clinicians must

obtain the level of training required by any state in which they practice. Beyond the baseline required by each state, it is demanded of the doctoring level clinician that they obtain any additional training to deem themselves safe and competent with the utilization of dry needling in clinical practice. The APTA and the FSBPT do not require a set amount of hours or curricular content as each state has a unique legislative environment prohibiting standardization at the national level.

Acupuncture Education:

In addressing the public safety issue, we also need to look at the training acupuncturists receive in general and specifically in gross anatomy, then look at the documented cases of injury reported from acupuncturists. When completing a google search for the top acupuncture schools in the US, we were led to the following website,

<http://www.thebestschools.org/blog/2012/09/11/10-acupuncture-schools-u-s/>, which analyzed schools accredited by Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM). The criteria used to rank the top 10 schools in the US were the following:

1. quality of faculty not only as practitioners of acupuncture but also as researchers advancing the field;
2. success in training students who can lead the field;
3. having not merely a masters but also a doctoral program in acupuncture;
4. comprehensiveness of the training program;
5. how long the school has been in existence and its reputation for excellence during that time.

In analyzing the curriculum of the top rated school, [Oregon College of Oriental Medicine](#), the highest level degree offered was a 2 year doctoral level program including 1,221 hours of combined didactic and clinical hours. The prerequisite requirements do not include anatomy and physiology, nor do any of the courses listed in the doctoral level program mention anatomy and physiology (<http://ocom.edu/images/Images/ocomcatalog2014-online.pdf>).

Relative Risks:

As with ANY intervention dry needling has risks. With proper training risks can be minimized. Some are arguing that physical therapists performing dry needling are harming and placing the public at increased risk. However, these claims are unsubstantiated and there is ABSOLUTELY no evidence that PTs who perform dry needling are causing harm or putting patients at any increased risk. Physical therapist have been dry needling in this country for over 25 years and much longer than that in other countries. And there is no evidence that indicate therapists are placing their patients at increased risk. In fact the evidence clearly shows that adverse effects by physical therapists who perform dry needling is similar to acupuncturist. Both are very safe interventions. Though transient adverse events are common (i.e bruising, soreness, headaches, drowsiness, etc), serious events are extremely rare as evidence by the Brady, Wit and White papers. (See Appendix C).

In the Brady³⁴ study, 39 physiotherapists in Ireland participated and 1463 (19.18%) mild adverse events (AE) were reported in 7629 treatments with trigger point dry needling (TrP-DN). No *significant* AEs were reported, giving an estimated upper risk rate for significant AEs of less

than or equal to (\leq) 0.04%. Common *mild* AEs included bruising (7.55%), bleeding (4.65%), pain during treatment (3.01%), and pain after treatment (2.19%). Uncommon *mild* AEs were aggravation of symptoms (0.88%), drowsiness (0.26%), headache (0.14%), and nausea (0.13%). Rare AEs were fatigue (0.04%), altered emotions (0.04%), shaking, itching, claustrophobia, and numbness, all 0.01%. While mild AEs were very commonly reported in this study of TrP-DN, no significant AEs occurred. For the physiotherapists surveyed, TrP-DN appeared to be a safe treatment.

To reiterate based on this study, the risk of serious adverse event was estimated at less than .04% which is contrasted to the risk associated with taking aspirin (18.7%), Ibuprofen (13.7%), and Paracetamol (14.5%)³⁴.

Doctors document informing patients when the risk is about 1:100,000. They typically obtain informed consent for those risks that are likely to occur 1:1000 to 1:2000 (there is a clear need for informed consent in these instances). In PT, the greatest risk is being burned by a hot pack (1:100,00 to 1:1,000,000). The risk of falling and getting injured during gait training even less. Even high velocity thrust techniques to the upper cervical spine are less than 1:1,000,000 (although they are under reported).

Other Uses of Needles by PTs:

Others have argued that needle penetration of skin is outside the physical therapy scope of practice. This is simply not true. Physical therapists have been performing needle Nerve Conduction Studies (NCS) and Electromyography (EMG) since the 1960's. In 1982 the APTA house of delegates approved board certification in clinical electrophysiology, which includes needle NCS/EMG. "On April 19, 2001 Program Memorandum (DHHS,HCFA B-01-28) which sets forth revised levels of physician supervision required for diagnostic codes payable under the Medicare physician fee schedule. The outcome of this is national recognition that physical therapists may perform and be reimbursed for electrophysiologic testing services when board certified as an ECS. It is notable that this includes EMG and nerve conduction codes as well as Somatosensory Evoked Potentials (SEP) and Visual Evoked Potentials (VEP) testing services plus intra-operative monitoring. It also allows for board certified PTs to supervise non-board certified PTs in the performance of EMG and nerve conduction studies, in addition to the supervision criteria by physicians for nerve conduction studies (Downs, J)." Physical therapist can bill for needle NCS/EMG under CPT codes 95907-95913. Jim Downs, P.T., E.C.S., Past Chairman and Current Member of SCE Practice Committee on Electrophysiologic Testing, April 30, 2001

Instructor credentialing:

The primary vendors of dry needling education in the US for PTs are Kinetacore, Myopain Seminars, American Academy of Manipulative Therapy, Intramuscular Stimulation (IMS), and Evidence in Motion (EIM). I have attached emails from each of these vendors, who cover the educational background of their instructors. Please see Appendix B.

Relation to acupuncture:

Acupuncturists and PTs doing dry needling have one thing in common, which is the use of a solid filament needle as *one of several tools* in their treatment strategy for a given problem. The methods by which each profession chose to use a needle differ according to their professional training and the state laws in which they practice. By law, whatever an acupuncturist does under their license is considered acupuncture, and whatever a PT does under their license is PT.

We agree that there may be overlap in *appearance* of the two treatments, but that concern in and of itself does not justify restricting the practice of PT and thus access by the public to these interventions. Comparing acupuncture to dry needling is like comparing a lidocaine shot to a cortisone shot given by either a naturopathic physician or a medical doctor. Both treatments use a needle and may even be used in the same area, but the intent may be different. While the public might generically lump them together by calling them a “shot by a doctor,” the practitioners delivering the injection choose the appropriate intervention based on their knowledge and training. A naturopathic physician and a medical doctor can both provide these interventions under their overlapping scopes of practice, and do so with the *common intent of helping the patient with their given problem.*

The physical therapy profession is focused on restoration of function and optimal movement. Dry needling is an effective adjunct to other interventions such as manual therapy, therapeutic exercise, neuromuscular re-education and therapeutic activities to name just a few in order to help patients regain their prior functional level.

We live in a day and age of evidence informed medicine. This EAIC should give their approval to the BOPTe board of physical therapy examiners to create rules to insure public safety by putting into place educational standards and practice guidelines. This board should also create rules that allow for the evolution of the practice of dry needling as the body of evidence grows.

We have sat through too many scientific meetings that do not allow for unsubstantiated claims to not get called out. This board is prepared to call out unsubstantiated rhetorical claims of those who oppose physical therapist performing dry needling. For if such unsubstantiated claims dictate the practice of physical therapy *it is the public that will be harmed by restricted access to care for which they could benefit.*

Instead of focusing their energy on restricting PT practice, we would suggest that acupuncturists embrace the research coming from the medical community and use the knowledge to enhance their own practices. There is a rapidly growing body of evidence explaining what happens at the physiological level when a needle is inserted beyond the dermis into the underlying connective and muscle tissue. Just as research in high velocity low amplitude mobilization by PTs have provided Chiropractors additional information to refine and justify their practices, acupuncturists can tap into the accumulating data on needling techniques.

At the root of this issue is concern acupuncturists have about the potential expansion of scope of PT practice into what they feel is their “territory.” Essentially, they feel the public will be confused by PTs using a similar device as they use. Given the intensity of their opposition, we can assume they fear losing identity and, most importantly, losing business. In our opinion, they need not fear that we will somehow damage their practices but instead will find their practices enhanced by our profession’s research. We can coexist just as other professions with overlapping scopes of practice do on a daily basis.

Appendix A - Resources and References

Resources: (Chronological order)

- v Guidelines: Physical Therapist Scope of Practice. APTA. 2014
- v FSBPT Dry Needling Resource Paper (Intramuscular Manual Therapy) 5th edition. Federations State Boards of Physical Therapy. 2014
- v APTA. Description of Dry Needling In Clinical Practice: An Educational Resource Paper. APTA. 2013
- v Physical Therapists & The Performance of Dry Needling: An Educational Resource Paper. APTA. 2012
- v The Model Practice Act for Physical Therapy: A Tool for Public Protection and Legislative Change. Federation of State Boards of Physical Therapy. 2011
- v Changes In Healthcare Professions’ Scope of Practice: Legislative Considerations. National Council of State Boards of Nursing. 2009

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Appendix B - Instructor Training (Kinetacore, Myopain, AAMT, IMS, EIM)

Kinetacore

RE: Educational Standards for Instructors for Functional Dry Needling
To Whom It May Concern:

I have recently been asked to provide details regarding the training our instructors receive to safely and effectively teach functional dry needling (FDN). These requirements for our instructors have been established through the constant evaluation of our course delivery and the evaluation of competency of our course participants in both safety and techniques used while administering FDN.

I have also been asked to comment on whether Doctoral Level trained Physical Therapists are qualified to perform Functional Dry Needling after appropriate postgraduate training. All lead instructors for our company have a minimum of 2 years of functional dry needling assistant teaching and a minimum standard of 2 years of practicing dry needling before becoming an assistant instructor.

Assistant Instructor (AI)

- Required application to begin training to become AI
- Candidate AI in training participates in a minimum of three introductory FDN courses:
 - AI in training receives training manual including all small group instruction information
 - 1st course the Candidate AI in training will participate in observation of all small group instruction and will assist in supervision of the participants practicing techniques taught during the course.
 - 2nd course the Candidate AI in training is required to teach a minimum of three small groups with supervision from a supervising senior faculty member (Lead Instructor)
 - 3rd course the Candidate AI in training is required to teach all the small groups for the three days of instruction with supervision and feedback/evaluation given by the supervising instructor. The AI in training is also required to perform practical testing under supervision.
 - If the supervising instructor signs off on the competency of the Candidate AI in training, the AI will then begin a probationary period of teaching FDN level one with a minimum of 4 courses taught per year.
- Once the AI for FDN 1 has assisted on four or more introductory FDN courses they can then begin training to become an AI for the Advanced FDN Course of instruction. The same requirements are required for the AI to become and AI for Advanced FDN. Occasionally a very skilled AI will be tested out for the advanced course after completing a minimum of two Candidate AI in training sessions. This is for the exceptionally talented instructor determined by the supervising Lead Instructor.

Format of Functional Dry Needling Courses

Introduction to Functional Dry Needling (level 1)

- 27 hours of instruction (average supervision of 1 instructor to 7 students)
 - History, background, safety, universal precautions
 - Indications, contraindications, precautions, outcome assessment, management of adverse events
 - Practical instruction of over 50 muscles with practice with instructor signing off on each muscle

- Practical and theory testing. (must pass both to receive certificate of certification)

Advanced Functional Dry Needling (level 2)

- Participant must electronically submit a log of 200 treatment sessions with a minimum of 4 muscles treated for a session to be counted. This is recommended to be completed within one year of introductory training.
- 27 hours of instruction (average supervision of 1 instructor to 7 students)
 - Review of safety
 - Literature review
 - Practical instruction of over 50 muscles with review of any introductory muscles to assure competency of all muscles taught in our courses. Instructor will sign off on each muscle
 - Practical and theory testing. (must pass both to receive certificate of certification)

Kinetacore also offers two other courses and two training modules for advancement of the clinicians use of dry needling clinically.

If you have further questions regarding our training please feel free to contact me at edo@kinetacore.com

Edo Zylstra PT, DPT, MS, OCS, IMSp

Myopain Seminars

Credentialing Requirements for Myopain Seminars Dry Needling Instructors Established January 2012 Updated January 2015

1. Successful completion of the Myopain Seminars Dry Needling Certification
2. A minimum of 10 years of clinical experience
3. At least two of the following criteria:
 - A minimum of 5 years of clinical dry needling experience
 - A PhD degree
 - A transitional DPT degree
 - Fellowship status in the American Academy of Orthopedic Manual Physical Therapists
 - OCS certified
 - A minimum of 5 years of teaching experience in a master of doctoral physical therapy program
4. Successful completion of the Myopain Seminars Instructors Training program (usually a 1-2 year training program consisting of assisting in DN courses, teaching parts of DN courses, didactic training, etc).

The founders of Myopain Seminars (Dr. Jan Dommerholt and Dr. Robert Gerwin) are exempt from these criteria. They developed the program, the certification examinations, and the credentialing requirements. Both Dr. Dommerholt and Dr. Gerwin have more experience with

dry needling in clinical practice, teaching dry needling courses, and publishing about dry needling and related fields than all other instructors of all dry needling course providers and instructors in the United States.

American Academy of Manipulative Therapy

Including myself, we only have 3 instructors for our dry needling courses. We have never had more and never replaced any.

Raymond Butts, PhD, DPT, MSc (NeuroScience), Cert. SMT, Cert. DN and Thomas Perreault, DPT, OCS, Cert. SMT, Cert. DN are both extremely qualified. They are both Senior Faculty members for the AAMT Fellowship in Orthopaedic Manual Physical Therapy. They both have attained post-graduate degrees and/or certifications and have taught along side me for 3 years. We don't have a document that lists requirements to teach DN for AAMT (American Academy of Manipulative Therapy) as we are not intending on hiring or firing anyone in the foreseeable future for these particular courses.

Kind regards,

James

Dr. James Dunning, DPT, MSc Manip Ther, FAAOMPT, MAACP, MMAPC (UK)

Director, AAMT Fellowship in Orthopaedic Manual Physical Therapy

Fellow, American Academy of Orthopaedic Manual Physical Therapists

Acupuncture Association of Chartered Physiotherapists (UK)

Manipulation Association of Chartered Physiotherapists (UK)

IMS

Thank you for contacting me regarding this issue.

I have been working with the Washington State PT Association and have testified in support of expanding Washington PT's scope of practice to include dry needling. I mention this because I have been considering the question you ask me for some time now as it understandably concerns legislators, and other interested 'stakeholders', and is admittedly a reasonable question that should be addressed.

I should preface my specific recommendations by telling you that the entire area of 'how much to regulate' the expansion of dry needling into PT practice can get quite detailed. My personal inclination is to use the 'protection of public safety' as the main criteria, but not necessarily any more restriction, and so avoid over-regulation and facilitate rather than hinder the access of patients to this treatment.

Prior to addressing your question of appropriate training for someone to **teach** DN would be the issue of appropriate training necessary to **practice** DN. Although I recognize that you didn't ask me specifically about this I think it is worth reviewing as it adds a larger context to the question you ask, and, if the teacher never learned it they obviously can't teach it.

You probably are aware that the requirements for training are quite variable state by state, with some states requiring a minimum of CE hours of training, documentation of a certain number of cases, and even followup 'certification.' I do not necessarily support all of that, but

rather making sure that all courses at least teach specifically where NOT to stick a needle in a patient so as to possibly cause not just a pneumothorax, but also vascular or nerve damage. That way, regardless of whether the treatment helps, it at least can do no harm. The surest way for PTs to lose the right to practice DN is even just 1 publicized case of an injured patient. Game Over. So every course should have very clear and specific education in proper surface anatomy that teaches these vulnerabilities.

In addition to this, another possible criteria for courses that are teaching DN which I think is important in addition to CE hours is the ratio of students: teacher. It is hard to imagine that students are getting the necessary personal observation and 1:1 coaching essential to learning to practice the technique safely with 1 teacher for every 15-20 students.

As you may know Montana is actually quite 'un-restricted' in that to my knowledge, no specific number of hours is required, although I imagine your regulations must provide some requirement for the PT to document proficiency in any practice.

Now, to your question about qualifications to **teach** DN.

I believe someone should be practicing DN for 3 years BEFORE they can become a Teaching Assistant. At that point they should be required to be a Teaching Assistant at 4 DN Courses while continuing to practice DN for an additional 2 years (total DN practice 5 years) before they should be allowed to Teach DN. I think these would be minimal criteria, perhaps even too lenient. Montana does not want rapid expansion of self-appointed teachers in this generally very safe but potentially dangerous technique.

I think that the above requirements for initial training and teaching courses in DN are the nominal ones that I would hope would endure scrutiny.

Hopefully that helps.

Please let me know if I may be of any additional assistance in this matter.

Steven R. Goodman, M.D.

LearnIMS

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T: 509.315.1895

EIM

EIM TDN Faculty Qualifications- Faculty members teaching in EIM TDN programs have a either a DPT and/or a PT degree with a terminal doctorate degree (PhD or DSc). All faculty are board certified in Orthopaedic Physical Therapy and many are Fellowship trained in Orthopaedic Manual Physical Therapy. In addition the faculty have a minimum of 5 years clinical experience which includes medical screening in direct access environments. Faculty have all completed the necessary competency based TDN training per their state licensing board. In addition, they undergo supervised TDN laboratory training with senior faculty. The faculty also publish on TDN in the peer-reviewed scientific literature and present their research at national and international conferences.

Appendix C

Brady, Wit, and White papers (attached in separate emails to Pat Murdo)