



Sunrise Review – Adding Dry Needling to Physical Therapist Scope of Practice
Follow-Up Questions to Applicant Report
July 19, 2016

1. Should dry needling (DN) be performed on vulnerable patients, such as infants, toddlers, pregnant women, or medically-compromised seniors? Is there a population of clients who should not receive dry needling?

The decision on whether to perform dry needling on a particular patient is based upon a thorough physical examination that takes into account the patient's age, cognitive level, patient values and beliefs about healthcare, patient's desired treatment plan, etc. Therapists must rely on their clinical training in examination, **as they do with all interventions**, to determine an appropriate plan of care for each patient. Dry needling continuing education does provide additional considerations when deciding whether dry needling is appropriate for patients with certain conditions and comorbidities.

Informed consent: The therapist must assess whether the patient communicates in a way that demonstrates understanding of the procedure, risks, benefits, etc., and can the patient communicate a change in status effectively? Obviously this question would take into consideration a population of patients who are very young (infants), very old (with either memory or dementia complications), and/or those with neurological disturbances that may limit that patient's ability to understand and/or communicate. However, while these factors must be considered, they are not an absolute contraindication.

Populations with special considerations:

- Is the patient under the age of 18? Dry needling, in general, is not suitable for children under 12 (girls) to 15 (boys). Infants, toddlers and other young children are not able to tolerate dry needling other than perhaps superficial dry needling. In general, non-invasive treatment options are preferable for children but there may be exceptions as evidence emerges. Recently, dry needling has been used in the treatment of pain and limitations in range of motion due to spasticity and hypertonicity in people after stroke, which may mean that there are potential benefits for other conditions such as the treatment of children with cerebral palsy. Informed consent would need to be obtained from a parent in this situation and the response carefully assessed to determine whether to proceed. These patients surely require special attention. However, to negate them from receiving this helpful tool would be to deny them the potential benefits.
- Is the patient medically compromised? Medically-compromised seniors need to be evaluated like any other patient and it needs to be determined whether dry needling

should be utilized. In principle, there are no convincing reasons why DN would be contra-indicated, except in individuals with a significantly compromised immune system. This is a definite consideration of how and if to proceed with dry needling, but it is not a blanket contraindication. The main issue with an impaired immune system is the potential of neutropenia and thrombocytopenia, as frequently seen during chemotherapy and radiation therapy. DN is contraindicated in these cases. There are no reported cases of infection secondary to dry needling, but in the presence of neutropenia and thrombocytopenia it is conceivable that DN may not be well tolerated. Clinically, a therapist will often communicate with the physicians who have an active role in the care of these patients before proceeding. Many of them are receiving other medical injections (which is a much larger needle with a cutting edge and essentially has a larger effect on the immune system) and they more easily tolerate a smaller filament needle and appropriate dosing of the treatments. Again, risk/reward ratio needs to be taken into consideration. A trained therapist needs to weigh the risk of using a minimally invasive tool on a patient who is immunocompromised.

- Does the patient have memory or cognitive dysfunction? Other relevant issues include the patient's ability to provide informed consent to dry needling treatment. Patients with dementia may not be able to provide informed consent and therefore, physical therapists must use their best judgment in determining whether DN should be applied.
- Does the patient have active cancer? While most DN continuing education courses teach this as a contraindication, there is not currently clear research to describe the effects dry needling has on an individual with cancer (from the progression of the disease standpoint). The effects are unknown, and therefore it is generally not practiced on these individuals. This is true for many other physical therapy interventions (for example ultrasound).
- Does the patient have a bleeding disorder that will affect their ability to respond appropriately from a hematological sense to the insertion of a filament needle? Patients with bleeding disorders may need special consideration. Both poor clotting and excessive clotting disorders need to be considered in this population. This again is not a contraindication, but practitioners must proceed with caution. Muscles where hemostasis is not possible due to anatomical considerations should not be needled, such as the lateral pterygoid muscle given the close proximity to the maxillary artery, or the iliacus, psoas, and subscapularis muscles, among others.
- Is the patient pregnant? Evidence shows that pregnancy is not a reason not to be treated with dry needling. However, as a precaution, continuing education courses recommend caution with dry needling during the first trimester mostly because of the increased rate of spontaneous miscarriage during the first trimester. The recommendation against DN during the first trimester is to avoid being inadvertently linked to any possible complications of pregnancy. Similar caution is taught in entry level physical therapy education with other interventions such as ultrasound and neuromuscular electrical stimulation. There is absolutely no scientific evidence

linking DN to adverse events of pregnancy. As outlined in the review, the paper by Carr and others provide ample evidence that DN during pregnancy is safe. See for example:

- Carr, DJ, 2015. The safety of obstetric acupuncture: forbidden points revisited. *Acupuncture in Medicine*; 33:413-419.
- Betts, D & Budd, S, 2011. 'Forbidden points' in pregnancy: historical wisdom? *Acupuncture in Medicine*; 29:137-139.
- Cummings, M, 2011. 'Forbidden points' in pregnancy: no plausible mechanism for risk. *Acupuncture in medicine*; 29:140-142.

As with all therapeutic interventions, therapists must use best available evidence to make decisions about patient populations that would benefit from particular interventions, as well as known and potential contraindications. The decision must be made based on the individual patient's physical examination, history, comorbidities, patient values and goals.

2. Please provide more detail on the appropriate clinical setting for performing dry needling, including maintenance of environment safety and infection control measures.

Any physical therapy clinical setting is in principle appropriate for the practice of dry needling. Clinicians must comply with best practice hygiene practices and any other additional requirements of their employer or other local workplace policies. This may include waste disposal rules, and requirements and guidelines for needles or bodily fluids. All physical therapists have been thoroughly educated in standard blood borne precautions as part of the basic physical therapy education as described by OSHA Blood Borne Pathogens protocol (Standards - 29 CFR). Physical therapists must comply with best practice requirements for the management of needle stick accidents and adverse reactions. Individual clinic policy and procedure documents can incorporate these guidelines.

3. The applicant report states that pneumothorax is a very rare but serious complication associated with dry needling. Is a physical therapist trained to recognize the signs of pneumothorax or other potential serious complications?

Entry level physical therapy students receive considerable education in differential diagnosis, which includes recognition of and response to potential pneumothorax. PTs are trained to assess patients in both the hospital and outpatient clinical setting for spontaneous and iatrogenic pneumothorax. Therapists who attend continuing education courses on dry needling also receive extensive training in the prevention, recognition and management of pneumothorax.

How would a physical therapist respond to such complications?

Dry needling practitioners and continuing education courses take the risk of pneumothorax very seriously and, aside from teaching very safe techniques to avoid the lung field, courses also:

A. Encourage all participants to educate their patients on the risks of pneumothorax and what to do in case they suspect they have suffered a pneumothorax.

B. If one of their patients is exhibiting symptoms of a pneumothorax, they advise that patient to go to be evaluated by their doctor, go to an ER, walk-in clinic, or somewhere that they can be seen quickly for a chest x-ray. The symptoms of pneumothorax may not even show up until a day after a treatment, so it is not likely that they will even be in the office when they experience the symptoms. As with all "red flags" that might happen when treating a patient (dry needling related or not), the urgency of the situation needs to be identified. A phone conversation with that patient will easily help the therapist make a good judgement on the situation (assessing ability to talk, breath, pain, etc.), so, as with anything, the therapist would use their discretion as to how emergent it is.

4. The applicant report lists objectives of available continuing education courses on dry needling, stating that the average length of these courses is 54 hours and satisfies the task force's recommendations, however:

- *The objectives listed for the above do not demonstrate the courses meet the 16 knowledge requirements that require advanced/specialized training for competency in dry needling identified in the HumRRO report (Table 2, page 12);*
- *Please provide more detail to demonstrate that the 16 recommended knowledge requirements are met through the available post-graduate/continuing education training programs.*

Please see the accompanying table of continuing education courses with details to answer this question.

5. How much of the specialized training is didactic and how much experiential?

Course	Total Hours	**Didactic	**Experiential
Myopain Seminars	100 hours	40%	60%
Kinetacore	54 hours	34%	66%
Spinal Manipulation Institute	54 hours	30%	70%
Integrative Dry Needling Institute	54 hours	15%	85%
Institute of Advanced Musculoskeletal Treatments	54 hours	8% lecture in Level I 4% lecture in Level II	92-96%

***These numbers are estimates as the didactic learning is integrated into the lab work.*

Many courses utilize case studies and didactic learning to guide the hands-on lab. Most courses require pre-course study outside of the hours of the course.

6. Please provide more details on the physical therapist disciplinary cases related to dry needling described on page 20 of the applicant report, particularly the nature of the complaints. Were there other complaints involving physical therapist dry needling that resulted in action other than discipline (e.g., agreed orders, probation, etc.); if yes provide details.

Please see the accompanying letter from the Federation of State Boards of Physical Therapy.

The objectives listed in the applicant report were a general representation of of the current courses available in the US with the greatest enrollment. However, to distinctly identify the fulfillment of these knowledge criteria, we must look at each course series individually. Each course highlights a unique list of learning objectives and therefore the knowledge criteria may fall under a slightly different objective or multiple objectives. The table below compares the learning objectives from 4/5 continuing education providers with the knowledge criteria identified by the FSBPT task force. The 5th continuing education provider (Myopian Seminars) gave a direct response to explain how each knowledge requirement is met in their courses. To give the best representation of the current standard, the continuing education companies used in the table are the ones with the highest enrollment in the US for dry needling education. We have also provided the objectives from each course for your reference.

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
<p>Surface anatomy as it relates to underlying tissues, organs, and other structures, including variations in form, proportion, and anatomical landmarks</p>	<ul style="list-style-type: none"> • Demonstrate appropriate knowledge and psychomotor skills necessary for safe and effective application of functional dry needling for musculature instructed in FDN Level 1. This includes demonstration of competence in the knowledge of surface anatomy and 3 dimensional anatomy, proper therapist and patient positioning, identification of possible contraindications and precautions, proper needle selection , compliance with clean needle technique as described in the course to follow OSHA standards, proper hand placement for safe application, safe application of functional dry needling 	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. • Master the psychomotor skills necessary to evaluate and treat neuromusculoskeletal dysfunctions related to neck pain, cervical radiculopathy, epicondylitis, cervicogenic headaches, shoulder pain, TMJ, and carpal tunnel syndrome with dry needling 	<ul style="list-style-type: none"> • Participant will develop the psychomotor skills necessary to safely and effectively deliver dry needling treatment during each practical lab sessions. • Participants will demonstrate the knowledge and clinical skills necessary to evaluate and treat myofascial pain and soft tissue dysfunctions by the end of the course • Participants will be able to identify and compare/ contrast homeostatic, paravertebral and symptomatic trigger points with an accuracy rate of 90% by the end of the course. 	<ul style="list-style-type: none"> • Locate specific muscle groups, peripheral nerves and vascular structures through clinical palpation • Locate active myofascial trigger points in the muscles based on the work of Travel and Simons technique 	<p>Surface anatomy and deep anatomy are covered in detail for every needling location. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
Emergency preparedness and/or response procedures related to secondary physiological effects or complications	<ul style="list-style-type: none"> Identify and acknowledge the possible risks associated with dry needling, including precautions, contraindications to dry needling, possible adverse effects, and how to manage adverse effects, in both emergent and non-emergent situations. 	<ul style="list-style-type: none"> Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. 	<ul style="list-style-type: none"> Participants will demonstrate the ability to provide safe and effective needling treatment, including preventing and managing adverse responses to needling, blood borne pathogens and clean needling technique based on OSHA standards with 100% accuracy by the end of the seminar. 	<ul style="list-style-type: none"> Explain indications, adverse effects and safe practice of dry needling within the scope of physical therapy practice. Explain the scientific basis of the effects of dry needling on reducing musculoskeletal pain and movement impairments. 	<p>The most common “emergency responses” include autonomic responses often due to anxiety; pneumothorax and other organ puncture. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
<p>Emergency preparedness and/or response procedures related to secondary emotional effects or complications associated with dry needling (e.g., claustrophobia, anxiety, agitation)</p>	<ul style="list-style-type: none"> • Demonstrate understanding of the underlying physiological, biomechanical and chemical mechanisms that can occur with the application of dry needling to the neuromusculoskeletal system. • Identify and acknowledge the possible risks associated with dry needling, including precautions, contraindications to dry needling, possible adverse effects, and how to manage adverse effects, in both emergent and non-emergent situations. • Demonstrate knowledge of the biomechanical and physiological effects dry needling can have on all of the systems in the body, and understand how to integrate this knowledge into a safe and effective treatment using dry needling. 	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. • Verbalize 3 indications and contraindications associated with dry needling of neuromusculoskeletal structures in the thorax, neck, shoulder, upper extremity, and craniofacial region. 	<ul style="list-style-type: none"> • Participants will demonstrate the ability to provide safe and effective needling treatment, including preventing and managing adverse responses to needling, blood borne pathogens and clean needling technique based on OSHA standards with 100% accuracy by the end of the seminar. 	<ul style="list-style-type: none"> • Explain indications, adverse effects and safe practice of dry needling within the scope of physical therapy practice. • Explain the scientific basis of the effects of dry needling on reducing musculoskeletal pain and movement impairments. 	<p>Claustrophobia is not a common effect or complication of dry needling. Anxiety and other psychological response patterns are covered in details throughout the courses. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
Standards for needle handling (e.g., hand hygiene, application of single-use needles)	<ul style="list-style-type: none"> • Demonstrate appropriate knowledge and psychomotor skills necessary for safe and effective application of functional dry needling for musculature instructed in FDN Level 1. This includes demonstration of competence in the knowledge of surface anatomy and 3 dimensional anatomy, proper therapist and patient positioning, identification of possible contraindications and precautions, proper needle selection , compliance with clean needle technique as described in the course to follow OSHA standards, proper hand placement for safe application, safe application of functional dry needling 	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. • Master the psychomotor skills necessary to evaluate and treat neuromusculoskeletal dysfunctions related to neck pain, cervical radiculopathy, epicondylitis, cervicogenic headaches, shoulder headaches, shoulder pain, TMJ, and carpal tunnel syndrome with dry needling 	<ul style="list-style-type: none"> • Participants will demonstrate the ability to provide safe and effective needling treatment, including preventing and managing adverse responses to needling, blood borne pathogens and clean needling technique based on OSHA standards with 100% accuracy by the end of the seminar. • 	<ul style="list-style-type: none"> • Understand and demonstrate all safety precautions in regard to needle handling utilizing a sterile technique for safety of the patient and the therapist. 	<p>Much attention is paid to needle handling, hygiene and use of single use needles. In the Myopain Seminars courses we use physiotherapy needles, specifically designed for DN. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
Factors influencing safety and injury prevention	<ul style="list-style-type: none"> • Demonstrate appropriate knowledge and psychomotor skills necessary for safe and effective application of functional dry needling for musculature instructed in FDN Level 1. This includes demonstration of competence in the knowledge of surface anatomy and 3 dimensional anatomy, proper therapist and patient positioning, identification of possible contraindications and precautions, proper needle selection , compliance with clean needle technique as described in the course to follow OSHA standards, proper hand placement for safe application, safe application of functional dry needling • Identify and acknowledge the possible risks associated with dry needling, including precautions, contraindications to dry needling, possible adverse effects, and how to manage adverse effects, in both emergent and non-emergent situations. 	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. • Verbalize 3 indications and contraindications associated with dry needling of neuromusculoskeletal structures in the thorax, neck, shoulder, upper extremity, and craniofacial region. 	<ul style="list-style-type: none"> • Participants will demonstrate the ability to provide safe and effective needling treatment, including preventing and managing adverse responses to needling, blood borne pathogens and clean needling technique based on OSHA standards with 100% accuracy by the end of the seminar. • Participant will develop the psychomotor skills necessary to safely and effectively deliver dry needling treatment during each practical lab sessions • Participant will develop the necessary psychomotor skills and knowledge to enable them to apply integrative dry needling techniques into their professional practice 	<ul style="list-style-type: none"> • Understand and demonstrate all safety precautions in regard to needle handling utilizing a sterile technique for safety of the patient and the therapist. • Explain the scientific basis of the effects of dry needling on reducing musculoskeletal pain and movement impairments. • Explain indications, adverse effects and safe practice of dry needling within the scope of physical therapy practice. • Locate specific muscle groups, peripheral nerves and vascular structures through clinical palpation. 	<p>DN is always anatomy-driven. We maintain that there are no “dangerous muscles” as long as a clinician is aware of three-dimensional anatomy. In the Myopain Seminars courses, detailed reviews of anatomy are included for every needling procedure, guaranteeing safe needling and injury prevention. Indications and precautions are covered in detail for every needling procedure. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
<p>Personal protection procedures and techniques as related to dry needling (e.g., positioning self to access treatment area, use of personal protective equipment)</p>	<p>Demonstrate appropriate knowledge and psychomotor skills necessary for safe and effective application of functional dry needling for musculature instructed in FDN Level 1. This includes demonstration of competence in the knowledge of surface anatomy and 3 dimensional anatomy, proper therapist and patient positioning, identification of possible contraindications and precautions, proper needle selection , compliance with clean needle technique as described in the course to follow OSHA standards, proper hand placement for safe application, safe application of functional dry needling</p>	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. 	<ul style="list-style-type: none"> • Participants will demonstrate the ability to provide safe and effective needling treatment, including preventing and managing adverse responses to needling, blood borne pathogens and clean needling technique based on OSHA standards with 100% accuracy by the end of the seminar. 	<ul style="list-style-type: none"> • Understand and demonstrate all safety precautions in regard to needle handling utilizing a sterile technique for safety of the patient and the therapist.. • Explain indications, adverse effects and safe practice of dry needling within the scope of physical therapy practice. • Apply dry needling technique to treat pain, tendinopathy, muscle dysfunctions and other musculoskeletal dysfunctions associated with active myofascial trigger points in the upper and lower quadrant muscles. 	<p>During the Myopain Seminars courses, all participants are required to wear nitrile gloves for personal protection. Much attention is paid to the positioning of subjects and practitioners. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
<p>Theoretical basis for dry needling (e.g., applications for rehabilitation, health promotion, fitness and wellness, performance)</p>	<ul style="list-style-type: none"> • Synthesize foundational and clinical sciences of myofascial pain, trigger points, pain patterns, movement dysfunction and functional dry needling to impact those findings clinical setting • Clearly define and describe dry needling for the treatment of neuromusculoskeletal dysfunction, movement impairments and pain associated with that dysfunction and impairment. • Demonstrate understanding of the underlying physiological, biomechanical and chemical mechanisms that can occur with the application of dry needling to the neuromusculoskeletal system. 	<ul style="list-style-type: none"> • Verbalize 3 indications and contraindications associated with dry needling of neuromusculoskeletal structures in the thorax, neck, shoulder, upper extremity, and craniofacial region • Justify the use of dry needling techniques by describing at least at one study from the literature for each of the following conditions: neck pain, cervical radiculopathy, epicondylitis, cervicogenic headaches, shoulder pain, TMJ, and carpal tunnel syndrome • Explain at least one of the proposed mechanisms [mechanical, hypoalgesic (central, segmental and/or peripheral), neurophysiologic, chemical and/or hormonal] for how dry needling results in a reduction in pain and disability. 	<ul style="list-style-type: none"> • Participants will demonstrate the knowledge and clinical skills necessary to evaluate and treat myofascial pain and soft tissue dysfunctions by the end of the course. • Participants will be able to accurately describe the neuroanatomy and physiology of trigger points, and the unique concepts of the IDN system during the case study portion of the course. • Apply and synthesize the knowledge in the practical applications of the physiological mechanisms of needling during the case study discussions. 	<ul style="list-style-type: none"> • Describe different type of myofascial trigger points and discuss their role in musculoskeletal pain and movement impairments. • Explain the scientific basis of the effects of dry needling on reducing musculoskeletal pain and movement impairments. • Explain indications, adverse effects and safe practice of dry needling within the scope of physical therapy practice 	<p>The Myopain Seminars courses include 5 hours of theoretical lectures establishing the theoretical basis of DN and the applications of DN in many settings. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
<p>Theoretical basis for combining dry needling with other interventions</p>	<ul style="list-style-type: none"> • Synthesize foundational and clinical sciences of myofascial pain, trigger points, pain patterns, movement dysfunction and functional dry needling to impact those findings clinical setting • Demonstrate knowledge of the biomechanical and physiological effects dry needling can have on all of the systems in the body, and understand how to integrate this knowledge into a safe and effective treatment using dry needling. 	<ul style="list-style-type: none"> • Verbalize how best to incorporate dry needling into conventional physical therapy practice 	<ul style="list-style-type: none"> • Apply and synthesize the knowledge in the practical applications of the physiological mechanisms of needling during the case study discussions • Participants will demonstrate the knowledge and clinical skills necessary to evaluate and treat myofascial pain and soft tissue dysfunctions by the end of the course • Participants will be able to accurately describe the neuroanatomy and physiology of trigger points, and the unique concepts of the IDN system during the case study portion of the course. 	<ul style="list-style-type: none"> • Describe different type of myofascial trigger points and discuss their role in musculoskeletal pain and movement impairments. • Explain the scientific basis of the effects of dry needling on reducing musculoskeletal pain and movement impairments. • Explain indications, adverse effects and safe practice of dry needling within the scope of physical therapy practice 	<p>DN is always part of a more comprehensive treatment approach, and this is covered in detail throughout the courses.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
<p>Secondary effects or complications associated with dry needling on other systems (e.g., gastrointestinal, cardiovascular/pulmonary, musculoskeletal)</p>	<ul style="list-style-type: none"> • Demonstrate knowledge of the biomechanical and physiological effects dry needling can have on all of the systems in the body, and understand how to integrate this knowledge into a safe and effective treatment using dry needling. 	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. • Explain at least one of the proposed mechanisms [mechanical, hypoalgesic (central, segmental and/or peripheral), neurophysiologic, chemical and/or hormonal] for how dry needling results in a reduction in pain and disability. 	<ul style="list-style-type: none"> • Participants will demonstrate the ability to provide safe and effective needling treatment, including preventing and managing adverse responses to needling, blood borne pathogens and clean needling technique based on OSHA standards with 100% accuracy by the end of the seminar. 	<ul style="list-style-type: none"> • Explain the scientific basis of the effects of dry needling on reducing musculoskeletal pain and movement impairments. • Explain indications, adverse effects and safe practice of dry needling within the scope of physical therapy practice. • Describe different type of myofascial trigger points and discuss their role in musculoskeletal pain and movement impairments. 	<p>There are few secondary effects or complications associated with DN, but these are covered in detail in the Myopain Seminars DN courses. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
<p>Theoretical basis of pain sciences, including anatomy, physiology, pathophysiology, and relation to body structures and function</p>	<ul style="list-style-type: none"> • Synthesize foundational and clinical sciences of myofascial pain, trigger points, pain patterns, movement dysfunction and functional dry needling to impact those findings clinical setting 	<ul style="list-style-type: none"> • Explain at least one of the proposed mechanisms [mechanical, hypoalgesic (central, segmental and/or peripheral), neurophysiologic, chemical and/or hormonal] for how dry needling results in a reduction in pain and disability. • Justify the use of dry needling techniques by describing at least at one study from the literature for each of the following conditions: neck pain, cervical radiculopathy, epicondylitis, cervicogenic headaches, shoulder pain, TMJ, and carpal tunnel syndrome • Explain at least one of the proposed mechanisms [mechanical, hypoalgesic (central, segmental and/or peripheral), neurophysiologic, chemical and/or hormonal] for how dry needling results in a reduction in pain and disability 	<ul style="list-style-type: none"> • Participants will be able to accurately describe the neuroanatomy and physiology of trigger points, and the unique concepts of the IDN system during the case study portion of the course. • Apply and synthesize the knowledge in the practical applications of the physiological mechanisms of needling during the case study discussions 	<ul style="list-style-type: none"> • Explain the scientific basis of the effects of dry needling on reducing musculoskeletal pain and movement impairments. • Describe different type of myofascial trigger points and discuss their role in musculoskeletal pain and movement impairments. 	<p>Covered in detail. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
Contraindications and precautions related to dry needling (e.g., age, allergies, diseases/ conditions)	<ul style="list-style-type: none"> • Demonstrate appropriate knowledge and psychomotor skills necessary for safe and effective application of functional dry needling for musculature instructed in FDN Level 1. This includes demonstration of competence in the knowledge of surface anatomy and 3 dimensional anatomy, proper therapist and patient positioning, identification of possible contraindications and precautions, proper needle selection , compliance with clean needle technique as described in the course to follow OSHA standards, proper hand placement for safe application, safe application of functional dry needling • Identify and acknowledge the possible risks associated with dry needling, including precautions, contraindications to dry needling, possible adverse effects, and how to manage adverse effects, in both emergent and non-emergent situations. 	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. • Verbalize 3 indications and contraindications associated with dry needling of neuromusculoskeletal structures in the thorax, neck, shoulder, upper extremity, and craniofacial region 	<ul style="list-style-type: none"> • Participants will demonstrate the ability to provide safe and effective needling treatment, including preventing and managing adverse responses to needling, blood borne pathogens and clean needling technique based on OSHA standards with 100% accuracy by the end of the seminar. • Apply and synthesize the knowledge in the practical applications of the physiological mechanisms of needling during the case study discussions • Participants will demonstrate the knowledge and clinical skills necessary to evaluate and treat myofascial pain and soft tissue dysfunctions by the end of the course 	<ul style="list-style-type: none"> • Explain indications, adverse effects and safe practice of dry needling within the scope of physical therapy practice 	<p>Covered in detail. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kineticore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
<p>Palpation techniques as related to dry needling</p>	<ul style="list-style-type: none"> • Demonstrate appropriate knowledge and psychomotor skills necessary for safe and effective application of functional dry needling for musculature instructed in FDN Level 1. This includes demonstration of competence in the knowledge of surface anatomy and 3 dimensional anatomy, proper therapist and patient positioning, identification of possible contraindications and precautions, proper needle selection , compliance with clean needle technique as described in the course to follow OSHA standards, proper hand placement for safe application, safe application of functional dry needling 	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. • Master the psychomotor skills necessary to evaluate and treat neuromusculoskeletal dysfunctions related to neck pain, cervical radiculopathy, epicondylitis, cervicogenic headaches, shoulder pain, TMJ, and carpal tunnel syndrome with dry needling 	<ul style="list-style-type: none"> • Participant will develop the psychomotor skills necessary to safely and effectively deliver dry needling treatment during each practical lab sessions • Participants will demonstrate the knowledge and clinical skills necessary to evaluate and treat myofascial pain and soft tissue dysfunctions by the end of the course. • Participant will develop the necessary psychomotor skills and knowledge to enable them to apply integrative dry needling techniques into their professional practice 	<ul style="list-style-type: none"> • Describe different type of myofascial trigger points and discuss their role in musculoskeletal pain and movement impairments. • Locate specific muscle groups, peripheral nerves and vascular structures through clinical palpation • Locate active myofascial trigger points in the muscles based on the work of Travel and Simons technique 	<p>Covered in detail for every muscle, scar tissue, fascia. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
Needle insertion techniques	<ul style="list-style-type: none"> • Demonstrate appropriate knowledge and psychomotor skills necessary for safe and effective application of functional dry needling for musculature instructed in FDN Level 1. This includes demonstration of competence in the knowledge of surface anatomy and 3 dimensional anatomy, proper therapist and patient positioning, identification of possible contraindications and precautions, proper needle selection , compliance with clean needle technique as described in the course to follow OSHA standards, proper hand placement for safe application, safe application of functional dry needling 	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. • Master the psychomotor skills necessary to evaluate and treat neuromusculoskeletal dysfunctions related to neck pain, cervical radiculopathy, epicondylitis, cervicogenic headaches, shoulder pain, TMJ, and carpal tunnel syndrome with dry needling. 	<ul style="list-style-type: none"> • Participant will develop the psychomotor skills necessary to safely and effectively deliver dry needling treatment during each practical lab sessions • Participant will develop the necessary psychomotor skills and knowledge to enable them to apply integrative dry needling techniques into their professional practice 	<ul style="list-style-type: none"> • Understand and demonstrate all safety precautions in regard to needle handling utilizing a sterile technique for safety of the patient and the therapist. 	<p>Covered in detail for every muscle, scar tissue, fascia. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
Needle manipulation techniques	<ul style="list-style-type: none"> • Demonstrate appropriate knowledge and psychomotor skills necessary for safe and effective application of functional dry needling for musculature instructed in FDN Level 1. This includes demonstration of competence in the knowledge of surface anatomy and 3 dimensional anatomy, proper therapist and patient positioning, identification of possible contraindications and precautions, proper needle selection , compliance with clean needle technique as described in the course to follow OSHA standards, proper hand placement for safe application, safe application of functional dry needling 	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region • Master the psychomotor skills necessary to evaluate and treat neuromusculoskeletal dysfunctions related to neck pain, cervical radiculopathy, epicondylitis, cervicogenic headaches, shoulder pain, TMJ, and carpal tunnel syndrome. 	<ul style="list-style-type: none"> • Participant will develop the psychomotor skills necessary to safely and effectively deliver dry needling treatment during each practical lab sessions • Participant will develop the necessary psychomotor skills and knowledge to enable them to apply integrative dry needling techniques into their professional practice 	<ul style="list-style-type: none"> • Understand and demonstrate all safety precautions in regard to needle handling utilizing a sterile technique for safety of the patient and the therapist. 	<p>Covered in detail for every muscle, scar tissue, fascia. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.</p>

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
Physiological responses to dry needling	<ul style="list-style-type: none"> • Demonstrate knowledge of the biomechanical and physiological effects dry needling can have on all of the systems in the body, and understand how to integrate this knowledge into a safe and effective treatment using dry needling. • Demonstrate understanding of the underlying physiological, biomechanical and chemical mechanisms that can occur with the application of dry needling to the neuromusculoskeletal system. 	<ul style="list-style-type: none"> • Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region. • Explain at least one of the proposed mechanisms [mechanical, hypoalgesic (central, segmental and/or peripheral), neurophysiologic, chemical and/or hormonal] for how dry needling results in a reduction in pain and disability. 	<ul style="list-style-type: none"> • Participants will demonstrate the ability to provide safe and effective needling treatment, including preventing and managing adverse responses to needling, blood borne pathogens and clean needling technique based on OSHA standards with 100% accuracy by the end of the seminar. • Apply and synthesize the knowledge in the practical applications of the physiological mechanisms of needling during the case study discussions 	<ul style="list-style-type: none"> • Explain the scientific basis of the effects of dry needling on reducing musculoskeletal pain and movement impairments. • Explain indications, adverse effects and safe practice of dry needling within the scope of physical therapy practice. • Apply dry needling technique to treat pain, tendinopathy, muscle dysfunctions and other musculoskeletal dysfunctions associated with active myofascial trigger points in the upper and lower quadrant muscles. 	Covered in detail. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.

Knowledge Criteria as outlined by FSBPT task force	Kinetacore	Spinal Manipulation Institute	Integrative Dry Needling	Institute of Advanced Musculoskeletal Treatments	Myopain Seminars
Solid filament needles (e.g., physical characteristics)	<ul style="list-style-type: none"> Demonstrate appropriate knowledge and psychomotor skills necessary for safe and effective application of functional dry needling for musculature instructed in FDN Level 1. This includes demonstration of competence in the knowledge of surface anatomy and 3 dimensional anatomy, proper therapist and patient positioning, identification of possible contraindications and precautions, proper needle selection , compliance with clean needle technique as described in the course to follow OSHA standards, proper hand placement for safe application, safe application of functional dry needling 	<ul style="list-style-type: none"> Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region 	<ul style="list-style-type: none"> Participant will develop the psychomotor skills necessary to safely and effectively deliver dry needling treatment during each practical lab sessions Participant will develop the necessary psychomotor skills and knowledge to enable them to apply integrative dry needling techniques into their professional practice 	<ul style="list-style-type: none"> Understand and demonstrate all safety precautions in regard to needle handling utilizing a sterile technique for safety of the patient and the therapist. 	Covered in detail for every muscle,scar tissue, fascia. All courses include practical and theoretical competency testing. The 3-course series is concluded with challenging theoretical and practical examinations.

Kinetacore

After completing Functional Dry Needling, participants will be able to:

- Clearly define and describe dry needling for the treatment of neuromusculoskeletal dysfunction, movement impairments and pain associated with that dysfunction and impairment.
- Demonstrate understanding of the underlying physiological, biomechanical and chemical mechanisms that can occur with the application of dry needling to the neuromusculoskeletal system.
- Identify and acknowledge the possible risks associated with dry needling, including precautions, contraindications to dry needling, possible adverse effects, and how to manage adverse effects, in both emergent and non-emergent situations.
- Synthesize foundational and clinical sciences of myofascial pain, trigger points, pain patterns, movement dysfunction and functional dry needling to impact those findings clinical setting.
- Demonstrate knowledge of the biomechanical and physiological effects dry needling can have on all of the systems in the body, and understand how to integrate this knowledge into a safe and effective treatment using dry needling.
- Demonstrate appropriate knowledge and psychomotor skills necessary for safe and effective application of functional dry needling for musculature instructed in FDN Level 1.
 - This includes demonstration of competence in the knowledge of surface anatomy and 3 dimensional anatomy
 - proper therapist and patient positioning
 - identification of possible contraindications and precautions
 - proper needle selection
 - compliance with clean needle technique as described in the course to follow OSHA standards
 - proper hand placement for safe application
 - safe application of functional dry needling

Spinal Manipulation Institute

After completion of DN-1, participants will:

1. Verbalize 3 indications and contraindications associated with dry needling of neuromusculoskeletal structures in the thorax, neck, shoulder, upper extremity, and craniofacial region.
2. Justify the use of dry needling techniques by describing at least at one study from the literature for each of the following conditions: neck pain, cervical radiculopathy, epicondylitis, cervicogenic headaches, shoulder pain, TMJ, and carpal tunnel syndrome.
3. Explain at least one of the proposed mechanisms [mechanical, hypoalgesic (central, segmental and/or peripheral), neurophysiologic, chemical and/or hormonal] for how dry needling results in a reduction in pain and disability.
4. Verbalize precautions and demonstrate safe, competent and proficient performance of dry needling techniques for neuromusculoskeletal structures associated with the thorax, neck, shoulder, upper extremity, and craniofacial region.
5. Integrate clinical reasoning skills and best available evidence to select appropriate dosage (i.e. frequency, intensity, and duration) for neuromusculoskeletal dysfunctions related to neck pain, cervical radiculopathy, epicondylitis, cervicogenic headaches, shoulder pain, TMJ, and carpal tunnel syndrome.
6. Master the psychomotor skills necessary to evaluate and treat neuromusculoskeletal dysfunctions related to neck pain, cervical radiculopathy, epicondylitis, cervicogenic headaches, shoulder pain, TMJ, and carpal tunnel syndrome with dry needling.
7. Describe and incorporate 3, evidence-based distal points into a semi-standardized dry needling approach.
8. Verbalize how best to incorporate dry needling into conventional physical therapy practice.
9. Master an ability to perform semi-standardized dry needling protocols associated with the peri-neural needling of the medial, ulnar, and superficial radial nerve.

***as evidenced by successful completion of oral/practical check-off sheets

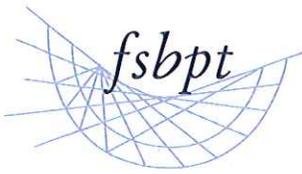
Integrative Dry Needling:

1. Participants will be able to identify and compare/contrast homeostatic, paravertebral and symptomatic trigger points with an accuracy rate of 90% by the end of the course.
2. Apply and synthesize the knowledge in the practical applications of the physiological mechanisms of needling during the case study discussions.
3. Participants will demonstrate the ability to provide safe and effective needling treatment, including preventing and managing adverse responses to needling, blood borne pathogens and clean needling technique based on OSHA standards with 100% accuracy by the end of the seminar.
4. Participant will develop the psychomotor skills necessary to safely and effectively deliver dry needling treatment during each practical lab sessions.
5. Participants will demonstrate the knowledge and clinical skills necessary to evaluate and treat myofascial pain and soft tissue dysfunctions by the end of the course.
6. Participants will be able to accurately describe the neuroanatomy and physiology of trigger points, and the unique concepts of the IDN system during the case study portion of the course.
7. Participant will develop the necessary psychomotor skills and knowledge to enable them to apply integrative dry needling techniques into their professional practice

Institute of Advanced Musculoskeletal Treatments

Objectives:

1. Describe different type of myofascial trigger points and discuss their role in musculoskeletal pain and movement impairments.
2. Explain the scientific basis of the effects of dry needling on reducing musculoskeletal pain and movement impairments.
3. Explain indications, adverse effects and safe practice of dry needling within the scope of physical therapy practice.
4. Locate specific muscle groups, peripheral nerves and vascular structures through clinical palpation.
5. Locate active myofascial trigger points in the muscles based on the work of Travel and Simons technique
6. Apply dry needling technique to treat pain, tendonopathy, muscle dysfunctions and other musculoskeletal dysfunctions associated with active myofascial trigger points in the upper and lower quadrant muscles.
8. Discuss legal issues regarding use of dry needling by physical therapist
8. Understand and demonstrate all safety precautions in regard to needle handling utilizing a sterile technique for safety of the patient and the therapist.



July 13, 2016

Jackie Barry, CAE
Executive Director
Physical Therapy Association of Washington
208 Rogers St NW
Olympia, WA 98502

Dear Ms. Barry:

RE: Physical Therapists performing dry needling; Sunrise Review Washington

The Federation of State Boards of Physical Therapy (FSBPT or Federation) is an organization made up of the 53 physical therapy licensing jurisdictions within the United States. The mission of the FSBPT is to protect the public by providing service and leadership that promote safe and competent physical therapy practice. To support its mission of public protection, the Federation administers and maintains the Examination, Licensure, and Disciplinary Database (ELDD).

Thank you for contacting us with your request to answer the sunrise review query from the Washington State Department of Health for more detail regarding the incidents of discipline in the ELDD and physical therapists and dry needling. Below you will find additional details on the reports.

In October 2014, two PTs in Arizona were disciplined for substandard practice for performing dry needling through clothing. One of these therapists was additionally licensed in Ohio and an action to restrict the Ohio license was taken in January 2015 based on the disciplinary action from Arizona. (This is the 2015 action noted in the original letter).

In March 2013, a PT in Maryland was disciplined because he did not document the dry needling treatment he performed on a patient although other procedures during that treatment session were documented. The PT in question had not received training in dry needling and was found to be working outside of the individual's competency.

There are a total of three discreet incidents- 2 in Arizona and 1 in Maryland. The FSBPT ELDD has no additional records of any additional complaints that were found to have merit and require some action. Probation, consent orders, reprimands, etc. are considered forms of action (discipline) in the ELDD and thus would be noted. If other complaints were lodged but found to have no merit, no report would be made to the FSBPT ELDD or the National Practitioner Data Bank.

Should you have any further question related to the ELDD or other regulatory issues regarding physical therapists, please do not hesitate to contact me.

Sincerely,

Leslie Adrian, PT, DPT, MPA
Director of Professional Standards
Federation of State Boards of Physical Therapy

Federation of State Boards of Physical Therapy

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