



Maryland Board of Acupuncture
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Maryland Board of Chiropractic Examiners
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Maryland Board of Physical Therapy Examiners
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2023 SESSION POSITION PAPER

BILL NO: SB 232
COMMITTEE: Finance
POSITION: OPPOSE

TITLE: Health Occupations - Licensed Athletic Trainers - Dry Needling Approval

BILL ANALYSIS: This Bill expands the practice scope for athletic trainers to perform dry needling and creates registration with the Board of Physicians for athletic trainers performing dry needling who have completed dry needling training requirements of 80 hours.

POSITION AND RATIONALE: The Maryland Board of Acupuncture (the Board), in addition to the Maryland Board of Chiropractic Examiners and the Maryland Board of Physical Therapy Examiners, opposes SB 232.

Dry Needling is an intramuscular manual therapy that involves the insertion of one or more solid (filiform) needles, a mechanical device, into the muscle and related tissues to affect change in muscle and related tissues. In layman's terms, dry needling is an invasive procedure wherein the same needles used in acupuncture are inserted through the skin into muscle and related tissue. The act of penetrating the skin is potentially dangerous, and without the proper education and training, could result in significant patient injury and harm including a pneumothorax, which is the collapsing of a lung, hemorrhage, nerve damage, and infections, to name a few. The Board believes that Athletic Trainers, whose minimum required education is a bachelor's degree, do not have sufficient education to perform dry needling with 80 hours of additional education pertaining to exclusively dry needling.

1) Background

Dry needling, historically referred to in acupuncture as "ashi acupuncture", is a treatment modality that has been used by acupuncturists for thousands of years to treat pain and improve motor function. Although dry needling professes that its treatment philosophy is based in Western medicine, it is modeled after acupuncture hence the use of the same filiform needles. The use of needles in the practice of healthcare is a privilege afforded to practitioners that are well prepared both academically and clinically. This preparation, as with all medical training, is patient-centered, focusing not only on the treatment efficacy but also overall patient safety.

In the 1980s, Maryland became the first jurisdiction in the United States to allow dry needling by licensed physical therapists. Since then, physical therapists and chiropractors, both highly educated medical

professionals, have used acupuncture needles with similar intent and effect, and integrated it into their Western medical framework as Dry Needling. No such history is present for athletic trainers. In 2012, the Board of Physical Therapy Examiners proposed regulations regarding dry needling that were approved in 2016 and went into effect in 2017, requiring 80 hours of additional training in needling technique and 40 hours of hands-on training. In 2020, chiropractors also adopted regulations requiring an additional 80 hours of training.

This bill similarly asks for athletic trainers to be registered after just 80 additional hours of training as physical therapists and chiropractors. However, as the Board explains below, athletic trainers have insufficient education and training to justify the addition of dry needling to their scope of practice even with the addition of 80 hours of training on the subject.

2) Education for Athletic Trainers is Significantly Less than Acupuncturists, Physical Therapists and Chiropractors

The act of piercing the skin and contacting or exposing the internal terrain of the body carries with it a myriad of possible after-effects, many of which can be damaging and even dangerous to the health and well-being of a patient. This is the main reason that licensed acupuncturists in our State, as well as the entire country, are required to have over 1800 hours of educational training in acupuncture, in addition to at least 300 hours of hands-on, clinical training, before they are granted a license to practice. As part of the East Asian medicine training related to acupuncture points, acupuncture education includes point location and associated risk factors, training on adverse events, infection control, patient position, information about the correct length, gauge, filiform or other types of needles, needling technique, insertion techniques (such as angle, depth, stretching skin), needle manipulation, needle retention time, needle removal techniques, and contraindications. Their education also includes extensive biomedical training such as anatomy, physiology, pathology, pathophysiology, differentiation of normal and abnormal structures and functions of body systems from a biomedical perspective, and recognition of signs, symptoms, and morbidities associated with common medical conditions and all relevant to patient safety when needling. The entry level degree for licensure in Maryland is a Master of Acupuncture and many practitioners go on to complete a doctorate in the field. Furthermore, it is noteworthy that even Physicians, Dentists and Veterinarians, after completing medical school, complete hundreds more hours training to be certified to treat patients with needles via a treatment known as medical acupuncture.

This bill creates similar registration requirements for athletic trainers as physical therapists and requires athletic trainers to complete an identical 80 hours of additional training to register to perform dry needling. Physical therapists (PTs) and athletic trainers, however, have significantly different levels of training, education, and a different history of performing dry needling.

Approximately 96% of PTs are trained at the doctoral level, consistent with Chiropractors, who are all required to have doctoral level degrees. Athletic trainers, on the other hand, need only a bachelor's degree to be licensed to practice athletic training. The difference in education between a bachelor's degree and a doctorate is significant, and the Board believes that the depth of anatomical and physiology education, as well as the depth of emergency care learned in a bachelor's degree program cannot match those learned at the doctorate level.

The subject matter of the educational instruction is also relevant to determining whether the licensees are competent to perform invasive dry needling procedures. As noted above, acupuncturists are required to devote hundreds of hours to needling technique, infection control, and safe handling of needles, as well as biomedical factors, and hands-on clinical training. PTs have less experience with needling directly, but have doctorate level training which includes significant instruction specific to the musculoskeletal system and the neuromuscular system. Accredited education programs in physical therapy must include extensive instruction in anatomy, histology, physiology, biomechanics, kinesiology, neuroscience, pharmacology,

pathology, clinical sciences, clinical interventions, clinical application, and screening. The basic anatomical, physiological, and biomechanical knowledge necessary for the safe and competent provision of dry needling is taught as part of the core education for physical therapists; specific dry needling skills are supplemental to that core knowledge. Furthermore, certain content areas relevant to the competent provision of dry needling, such as surface anatomy and skeletal muscle physiology, are part of the national physical therapist licensing examination. Chiropractors have a similar background and extensive training. Physicians, dentists and veterinarians, who by training, are too well prepared to render whole patient care, as their practices routinely address the duality of external and internal treatment.

In contrast, according to the Commission on Accreditation of Athletic Training Education, accredited programs include formal instruction in areas such as injury/illness prevention, first aid and emergency care, assessment of injury/illness, human anatomy and physiology, therapeutic modalities, and nutrition. According to their website, AT certification examination covers the following topics:

- Injury and illness prevention and wellness promotion
- Examination, assessment and diagnosis
- Immediate and emergency care
- Therapeutic intervention
- Health care administration and professional responsibility

While these are perfectly adequate for the typical activities done by athletic trainers, these educational topics in a bachelor's or even master's degree do not appear to have nearly as much in-depth training about the body and about invasive procedures that would be necessary for dry needling. This point is further illuminated when you consider the following comparison. A Master's degree in Acupuncture requires more than 120 credits (source: 128.5 credits from the MD University of Integrative Health). A Master's degree in Physical Therapy requires almost 90 credits (source: 86 credits from the University of Pittsburgh). A Master's degree in Athletic Training requires 60 credits (source: Towson State University).

Even advocates for Athletic Trainers who claim that the most recent educational competencies are sufficient, acknowledge that only a third of Athletic Trainers have been trained under the most recent competencies and two thirds of Athletic Trainers do not have sufficient educational background to perform dry needling. Moreover, a National Athletic Trainers Association fact sheet has admitted, "Currently, there is no profession-wide standard that defines athletic trainer competence in dry needling."

When the physical therapist regulations were introduced, the physical therapists relied heavily on their prior education as a justification for the eighty hours of dry needling training. They demonstrated that much of the information that is required for dry needling was already adequately covered by core physical therapy education. The Board believes that athletic trainers have made no similar showing, and that the thousands of fewer hours and the lack of similar depth of training simply cannot be deemed equivalent to a master's in Acupuncture or the doctorate level training of physical therapists and chiropractors.

3) Miscellaneous Concerns

SB 232 contains an additional provision of concern. The educators teaching dry needling to the athletic trainers need no specialized education themselves, but merely need five years of dry needling experience and to have taken the 80 hours of classwork themselves. As such, the Board has concerns that even those providing the education are ill-equipped to provide the necessary safety and clinical training to those learning this for the first time.

Second, the bill defines dry needling as allowing the insertion of needles or mechanical devices. By allowing insertion of unnamed mechanical devices, the definition of dry needling goes beyond any dry needling practice performed by PTs or other practitioners. The Board has

serious concerns about this potential expansion of dry needling to mechanical devices.

4) Summary of Concerns

In summation, dry needling is a therapeutic intervention that is gaining notoriety amongst Western medicine practitioners for its potential to achieve positive patient outcomes when administered by well academically and clinically prepared practitioners. This same therapeutic intervention is a potentially dangerous medical technique that can result in patient injury and harm if administered by an ill-prepared practitioner. Athletic trainers lack the necessary underlying academic education to safely perform the invasive procedure of dry needling. In contrast to physical therapists and chiropractors who almost universally have doctorate level degrees with substantially more depth and breadth of relevant medical foundations and acupuncturists who have biomedical training and specifically train for hundreds of hours of needling techniques and safety protocols, athletic trainers lack the foundational fundamentals. With a mere 80 hours of training athletic trainers cannot be brought to the level of competency necessary to safely perform dry needling.

For all of these reasons, the Board, along with the State Board of Chiropractic Examiners and the State Board of Physical Therapy Examiners, respectfully urges, for the safety of the public, that the Committee vote unfavorably on SB 232.

Thank you for your consideration. For more information, please contact Tiffany Smith-Williams, Executive Director for the Acupuncture Board, at 410-764-5925 or tiffany.smith-williams@maryland.gov or Lillian Reese, the legislative liaison for the boards at 443-794-4757 or at lillian.reese@maryland.gov.

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