
Physical Agent Modalities: A Position Paper

The American Occupational Therapy Association (AOTA) asserts that physical agent modalities (PAMs) may be used by occupational therapists and occupational therapy assistants in preparation for or concurrently with purposeful and occupation-based activities or interventions that ultimately enhance engagement in occupation (AOTA, 2002, 2003). AOTA further stipulates that PAMs may be applied only by occupational therapists and occupational therapy assistants who have documented evidence of possessing the theoretical background and technical skills for safe and competent integration of the modality into an occupational therapy intervention plan (AOTA, 2003). The purpose of this paper is to clarify the appropriate context for use of PAMs in occupational therapy.

Physical agent modalities are those procedures and interventions that are systematically applied to modify specific client factors when neurological, musculoskeletal, or skin conditions are present that may be limiting occupational performance. PAMs use various forms of energy to modulate pain, modify tissue healing, increase tissue extensibility, modify skin and scar tissue, and decrease edema/inflammation. PAMs are used in preparation for or concurrently with purposeful and occupation-based activities (Bracciano, 2008).

Specific categories of physical agents include superficial thermal agents, deep thermal agents, and electrotherapeutic agents and mechanical devices.

- *Superficial thermal agents* include but are not limited to hydrotherapy / whirlpool, cryotherapy (cold packs, ice), Fluidotherapy,TM hot packs, paraffin, water, infrared, and other commercially available superficial heating and cooling technologies.
- *Deep thermal agents* include but are not limited to therapeutic ultrasound, phonophoresis, short-wave diathermy, and other commercially available technologies.
- *Electrotherapeutic agents* use electricity and the electromagnetic spectrum to facilitate tissue healing, improve muscle strength and endurance, decrease edema, modulate pain, decrease the inflammatory process, and modify the healing process. Electrotherapeutic agents include but are not limited to biofeedback, neuromuscular electrical stimulation (NMES), functional electrical stimulation (FES), transcutaneous electrical nerve stimulation (TENS), high-voltage galvanic stimulation for tissue and wound repair (ESTR), high-voltage pulsed current (HVPC), direct current (DC), iontophoresis, and other commercially available technologies (Bracciano, 2008).
- *Mechanical devices* include but are not limited to vasopneumatic devices and continuous passive motion (CPM).

PAMs are categorized as preparatory methods (AOTA, 2002) that also can be used concurrently with purposeful activity or during occupational engagement. Preparatory methods support and promote the acquisition of the performance skills necessary to enable an individual to resume or assume habits, routines, and roles for engagement in occupation.

The exclusive use of PAMs as a therapeutic intervention without application to occupational performance is not considered occupational therapy. When used, *PAMs are always integrated into a broader occupational*

therapy program as a preparatory method for the therapeutic use of occupations or purposeful activities (AOTA, 2002).

Occupational therapists and occupational therapy assistants must have demonstrated and verifiable competence in order to use PAMs in occupational therapy practice. The foundational knowledge necessary for proper use of these modalities requires appropriate, documented professional education. Examples of professional education include continuing education courses, institutes at annual conferences, and accredited higher education courses or programs. Integration of PAMs in occupational therapy practice must include foundational education and training in biological and physical sciences. Modality-specific education consists of biophysiological, neurophysiological, and electrophysiological changes that occur as a result of the application of the selected modality. Education in the application of PAMs also must include indications, contraindications, and precautions; safe and efficacious administration of the modalities; and patient preparation including the process and outcomes of treatment (i.e., risks and benefits). Education should include essential elements related to documentation, including parameters of intervention, subjective and objective criteria, efficacy, and the relationship between the physical agent and occupational performance. Supervised use of the PAM should continue until service competency and professional judgment in selection, modification, and integration into an occupational therapy intervention plan is demonstrated and documented (AOTA, 2002).

The occupational therapist makes decisions and assumes responsibility for use of PAMs as part of the intervention plan. The occupational therapy assistant delivers occupational therapy services under the supervision of the occupational therapist. Services delivered by the occupational therapy assistant are selected and delegated by the occupational therapist (AOTA, 2004). When an occupational therapist delegates the use of a PAM to an occupational therapy assistant, both must comply with appropriate supervision and regulatory requirements and ensure that preparation, application, and documentation are based on service competency. That is, *only occupational therapists with service competency in this area may supervise the use of PAMs by occupational therapy assistants.*

The *Occupational Therapy Code of Ethics* (AOTA, 2005) mandates a safe and competent practice in the profession and provides guiding principles that must be applied to PAM use. Principle 4 states that “occupational therapy personnel shall achieve and continually maintain high standards of competence.” Principle 4E states that “occupational therapy practitioners shall critically examine available evidence so they may perform their duties on the basis of accurate information,” which obliges practitioners to maintain competency by involvement in lifelong learning. In addition, Principle 5 states that “occupational therapy personnel shall comply with laws and Association policies guiding the profession of occupational therapy” and requires practitioners to remain abreast of any revisions to rules, regulations, and laws as they relate to PAMs. All state laws and regulations related to PAM use have precedence over AOTA policies and positions. ▲

References

- American Occupational Therapy Association. (2002). Occupational therapy practice framework: Domain and process. *American Journal of Occupational Therapy*, 56, 609–639.
- American Occupational Therapy Association. (2003). Physical agent modalities: A position paper. *American Journal of Occupational Therapy*, 57, 650–651.
- American Occupational Therapy Association. (2004). Roles and responsibilities of the occupational therapist and the occupational therapy assistant during the delivery of occupational therapy services. *American Journal of Occupational Therapy*, 58, 663–667.
- American Occupational Therapy Association. (2005). Occupational therapy code of ethics (2005). *American Journal of Occupational Therapy*, 59, 639–642.
- Bracciano, A. G. (2008). *Physical agent modalities: Theory and application for the occupational therapist* (2nd ed.). Thorofare, NJ: Slack.

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