

Massage Therapy Body of Knowledge (MTBOK)

Version 1.0

May 15, 2010

Sponsored under the joint stewardship of the following organizations:

American Massage Therapy Association (AMTA) Associated Bodywork and Massage Professionals (ABMP) Federation of State Massage Therapy Boards (FSMTB) Massage Therapy Foundation (MTF) National Certification Board for Therapeutic Massage and Bodywork (NCBTMB)

Authored by the MTBOK Task Force

Representing a Consensus of the Massage Therapy Profession

Bryan Fong, MBA, LMT, NCTMB Megan E. Lavery, LMT, CZB, NCTMB Kevin Pierce, MBA, LMT Susan G. Salvo, BEd, LMT, NTS, CI, NCTMB Steven Schenkman, BS, LMT Dawn M. Schmidt, BS, LMP JoEllen Sefton, PhD, ATC, CMT, NCTMB Michael J. Shea, PhD, LMT

Chip Hines, MS, PMP, LMT, NCTMB - Project Manager

.....

Table of Contents

Section 0 Preamble and Overview

Section 10 Preamble

Section 20 MTBOK Vision

Section 100 Description of Massage Therapy and Scope of Practice

- Section 110 Description of the Massage Therapy Field
- Section 120 Massage Therapy Definition and Scope of Practice Statement
- Section 130 What Is Included in the Scope
- Section 140 What Is Not Included in the Scope

Section 200 <u>Competency Requirements for a Massage Therapist in Terms of</u> <u>Knowledge, Skills and Abilities (KSAs)</u>

Section 210 Entry-Level Massage Therapist KSAs

Section 210.1	Overview of Massage and Bodywork History / Culture
Section 210.2	Anatomy and Physiology
Section 210.3	Kinesiology
Section 210.4	Pathology
Section 210.5	Assessment, Treatment Planning and Documentation
Section 210.6	Research and Information Literacy
Section 210.7	Business Practices, Laws and Regulations
Section 210.8	Boundaries, Ethics and the Therapeutic Relationship
Section 210.9	Body Mechanics and Self Care
Section 210.10	Massage Techniques and Physiological and Psychological
	Effects
Section 210.11	Therapeutic Modalities

Section 300 Terminology

- Section 400 <u>Acknowledgement</u>
- Section 500 Appendix
 - Section 510 Appendix A: Muscle List

Bibliography

Section 0

Overview

Section 10 Preamble

Background and Overview: The need for a Massage Therapy Body of Knowledge (MTBOK) has been known for some time. The variety within the massage therapy profession is a tremendous asset to those who receive our work, but it presents challenges to the development of the MTBOK. Beginning several years ago, a series of meetings with representatives of associations relating to massage and allied healthcare professions were held to address shared issues. Ultimately, it was agreed that an MTBOK needed to be developed and that it should be done by an independent task force composed of accomplished members of the profession who would be selected to represent the full massage therapy community. The project would be managed by a group of associations through stewardship: the organizations would set the general direction, provide a framework and resources, but would not be involved in, nor have approval authority over the content.

This document is the result of a development effort by the initial MTBOK Task Force. The Task Force members are volunteers who have given their time and expertise to help establish this baseline document. It is important to note that the document has not been developed in seclusion. The participating associations have been keeping the profession aware of the project. There have been two cycles of public comments which resulted in over 1200 comments being submitted. Each of the comments was read, discussed and an appropriate action was taken. A free, open Stakeholder Input Session was held at the annual meeting of one of the steward organizations and Task Force members have participated in allied meetings upon request, primarily with organizations of massage educators. These inputs to the process have had a great impact on the final product.

A major goal is that the MTBOK represents the massage community and that it remains a living, learning "document," one that grows with and in some cases ahead of, our community. It will remain living if you, the community, become involved with it and continue to keep it relevant, responsive, growing and strong.

This document fulfills the conceptual framework specified by the steward organizations for the MTBOK and contains 4 crucial elements:

- A Description of the massage therapy field.
- A Scope of Practice for massage therapy.
- A description of the competencies of an entry level massage therapist in terms of Knowledge, Skills and Abilities.
- Terminology specific to the massage therapy field or which has specific meanings in massage therapy.

Description and Scope vs. Knowledge, Skills and Abilities

As you use this document, keep in mind that:

- The <u>Description and Scope of Practice</u>, Section 100, is focused on the entire scope of the massage therapy field.
- The <u>Knowledge</u>, <u>Skills and Abilities</u>. Section 200, is restricted to the competencies an *entry-level* massage therapist must possess.

Intentions and Clarifications from the Initial MTBOK Task Force

- The MTBOK has no legal authority. The jurisdictions in which you practice hold that authority. Over time, the MTBOK will be a source of information that legislative and regulatory bodies rely on to obtain the best information about our profession. The intention is to support legislators to make informed decisions as they formulate statutes and consider exempting from massage therapy statutes those related manual practices which have their own standards of education, examination and practice such as, but not limited to, Asian Bodywork, Reflexology and Polarity Therapy.
- The intention of the MTBOK seeks to ensure that massage therapists are not restricted from integrating and applying knowledge and skills gained through education and certification from these practices when applying massage therapy provided they are operating within the scope of practice. The intention is to maintain the integrity of the massage therapy profession and that of related manual therapies so that we may work together respectfully for the benefit of those we touch.
- The MTBOK is not defining other professions and recognizes that there may be overlap in Scope of Practice and/or Knowledge, Skills and Abilities (KSAs). In areas of professional overlap, it is not our intention to limit anyone's practice. There is richness in professional diversity, which benefits professionals and clients/patients.
- Massage therapy and bodywork overlap in many, although not all, areas.
- The foundational and holistic framework of all massage therapy methods is the recognition of the whole person, which includes <u>body</u>, <u>mind and spirit</u>. In the practice of massage therapy, the state of the whole person is also considered within the emotional, occupational, environmental and social context of his or her life.
- Finally, the intention is to create a common understanding of the profession. This body of knowledge will have a profound impact on the profession. The work of licensure, education, accreditation, certification, research and practice will be facilitated and the massage therapy profession will become more cohesive. In addition, the intention is that there will be a sustained interaction among all parties to keep the body of knowledge alive and growing as the profession continues to move forward.

Section 20 MTBOK Vision

The following summary of the vision of the MTBOK is taken from the final MTBOK Business Case Summary developed by the MTBOK steward organizations. The document is available at <u>http://www.mtbok.org/resources.html</u>.

Vision

The vision for a massage therapy body of knowledge initiative is to develop and adopt a common BOK for the profession, defined as [3]:

A living resource of competencies, standards and values that inform and guide the domains of practice, licensure, certification, education, accreditation and research.

- **Competencies** refer to the *Knowledge, Skills and Abilities (KSAs)* that enable massage therapists to perform their work in a safe and effective manner. *Knowledge* is the technical information, theory and research that support the practice; *Skills* are the psychomotor capabilities a massage therapist utilizes; and *Abilities* are demonstrable behaviors both innate and learned that result in an observable outcome in the treatment setting. (KSAs will be defined for both the entry level of practice and areas of specialized and advanced practice.)
- **Standards** are the established and documented norms or requirements for the profession. They include such components as a Scope of Practice definition, a Code of Ethics, Standards of Practice, Nomenclature, Taxonomy, Education Standards (including Curriculum Standards, Teacher Qualifications and Institutional Requirements) and Workplace Standards (including Ergonomic Factors, Facility Requirements and Therapist Capacities).
- **Values** are the unique attributes, qualities and principles that are embodied by individual massage therapists, as well as by the institutions and organizations that comprise the profession.

Section 100

Description of Massage Therapy and Scope of Practice

Section 110 Description of the Massage Therapy Profession

Massage therapy is a healthcare and <u>wellness</u> profession. The practice of massage therapy involves a <u>client/patient</u>-centered session, intended to support therapeutic goals, with the therapist being free of personal agenda. Massage therapy also meets the well-researched need for touch and human connection. Massage therapy at its essence is human touch with clear intention, focused attention and the attitudes of compassion and non-judgment [<u>36</u>, <u>52</u>, <u>53</u>, <u>57</u>, <u>72</u>, <u>117</u>].

During a session, a massage therapist incorporates a wide variety of <u>techniques</u> and approaches. They design the session to address the goals of the client/patient, which may include, but is not limited to, the following:

- Treatment of pain, injury or conditions.
- Relaxation.
- Stress reduction.
- Wellness.
- Enhanced movement.
- Personal growth.
- Body awareness.
- Balance and connection of body, mind and spirit.

Massage therapy is performed in a variety of practice settings designed to meet a multitude of client/patient needs. Examples of the many possibilities include:

- In independent offices serving community needs.
- In an athletic training facility working with both amateur and professional athletes to improve performance.
- In hospitals, providing massage therapy for patients.
- In a massage clinic working on injury rehabilitation.
- In multidisciplinary clinics with acupuncturists, medical doctors, physical therapists and naturopathic physicians as part of a healthcare team, providing integrated healthcare.
- In oncology clinics, providing palliative care.
- In chiropractic clinics, doing massage therapy treatments that support chiropractic care.
- As an onsite practitioner going to client homes or offices.
- In airports, doing seated massage therapy on travelers.
- In spas, offering stress-reducing time away from the hectic pace of life.

- With psychotherapists, focusing on mind-body connections that help heal past trauma.
- In retreat centers with clients/patients on a self-actualization path, focusing on mindbody awareness or creating a meditative state for the whole body.
- In a stable, helping the dressage horse and rider work together with ease, addressing the individual body issues that each may have.

Many people who have received massage therapy can attest to the emotional, mental and physical benefits. The physiological mechanisms that create these benefits have been the focus of a growing body of research over the last twenty-five years. Research confirms that massage therapy reduces pain [8, 83], relieves anxiety levels [20, 63], decreases blood pressure [14, 51], lessens depression [34, 40, 41] and improves weight gain in premature infants [39, 109]. As research increases our understanding of how this therapy improves health and wellness, it will help guide the teaching, practice and utilization of massage therapy in order to achieve the greatest benefit to the client/patient.

Section 120 Massage Therapy Definition and Scope of Practice Statement

Massage therapy is a healthcare and wellness profession involving manipulation of soft tissue. The practice of massage therapy includes <u>assessment</u>, <u>treatment planning</u> and treatment through the manipulation of <u>soft tissue</u>, circulatory fluids and <u>energy</u> fields [121], affecting and benefiting all of the body systems, for therapeutic purposes including, but not limited to, enhancing health and wellbeing, providing emotional and physical relaxation, reducing stress, improving posture, facilitating circulation of blood, lymph and interstitial fluids, balancing energy, remediating, relieving pain, repairing and preventing injury and rehabilitating. Massage therapy treatment includes a hands-on component, as well as providing information, education and non-strenuous activities for the purposes of self care and health maintenance. The hands-on component of massage therapy is accomplished by use of digits, hands, forearms, elbows, knees and feet with or without the use of emollients, liniments, heat and cold, hand-held tools or other external apparatus. It is performed in a variety of employment and practice settings.

Section 130 What Is Included in the Scope of Practice

The preceding Sections 110 and 120, "Description of the Massage Therapy Field" and "The Massage Therapy Scope of Practice Statement," were specifically intended and drafted to describe and define the entire field of practice of massage therapy as it presently exists while recognizing, respecting and excluding the different and distinct identities of other forms of touch therapies within the broader industry (including, but not limited to, other bodywork and somatic practices with their own separately developed systems and philosophies, scopes of practice and educational requirements).

As written, Sections 110 and 120 define the full scope of practice of the massage therapy profession, one that goes beyond the minimum entry-level "Competency"

Requirements for a Massage Therapist in Terms of Knowledge, Skills and Abilities (KSAs)" presented in Section 200. Therefore, it should be understood that not all items mentioned or implied in the above descriptions of the field and its full scope of practice are entry level and that not all of the items would be expected to be included in Section 200 KSAs or in basic entry-level massage therapy training.

The following list of what is included in the scope of practice of massage therapists assumes, at least, the minimum entry-level training in massage therapy and specific post- graduate training where necessary or required:

- The use of touch through pressure, <u>stroking/gliding (effleurage)</u>, <u>kneading</u> (petrissage), <u>lifting</u>, <u>percussion (tapotement)</u>, <u>compression</u>, <u>holding</u>, <u>vibration</u>, <u>friction</u>, pulling, movement and stretching (see below) by the digits, hand, forearm, elbow, knee, foot or mechanical appliances which enhance massage therapy techniques.
- Techniques to enhance wellness and facilitate mind, body and spirit connections.
- The use of active/passive movement within the normal physiologic range of motion, active assisted and resistive movement and stretching.
- <u>Neuromuscular re-education</u> and <u>soft tissue</u> <u>mobilization</u>.
- Energy work, which includes treatment of the energy field through the use of touch or through the use of non-contact techniques.
- Client/patient assessment by health history and intake interview, observation of posture and movement, palpation, range of motion assessment, <u>special tests</u> and, with permission, consultation with the client's/patient's other healthcare providers.
- The determination of whether massage therapy is indicated or contraindicated for the client/patient.
- The determination of whether referral to another healthcare practitioner is appropriate or necessary when the client's/patient's condition is determined by the massage therapist to be beyond his or her scope of practice, skills and training.
- Formulation of an individualized treatment plan based on client/patient assessment findings.
- Application of therapeutic modalities that include hot and cold applications (such as heat lamps, compresses, ice or hot packs, stones, etc.), hydrotherapy.
- Application of therapeutic procedures that include topical nonprescription applications (herbs, salts, sugars, poultices, muds, packs, etc.), body wraps (for therapeutic musculoskeletal and wellness/constitutional intentions), tools, electric massagers, aromatherapy and application of tape for the purpose of therapeutic benefit that does not restrict joint movement.
- Using emollients, lubricants and friction-reducing products, such as oils, gels, lotions, creams, powders, rubbing alcohol, liniments, antiseptics, ointments and other similar preparations.
- Documenting a client's health history, intake interview, assessment findings, treatment and treatment outcomes, as appropriate.
- Obtaining a client's/patient's informed consent prior to initiating treatment.
- Using guided relaxation techniques for the intention of facilitating and enhancing application of massage therapy.

- Offering specific suggestions and recommendations of self care and healthmaintenance activities including, but not limited to, self-massage, movement, selfadministered hydrotherapy applications, stress reduction and stress management techniques, stretching activities, structured breathing techniques, progressive relaxation and meditation.
- Ethical business practices, which shall include, but not be limited to, full disclosure of fees and payment policies with the client/patient prior to providing massage therapy.
- Intra-oral and intra-nasal work with separate informed consent to address the specific considerations (All other manipulation of soft tissue is limited to external tissues.).
- Female breast massage, with separate <u>informed consent</u> to address the specific considerations.
- Animal massage.

Section 140 What Is Not Included in the Scope of Practice

The following are NOT included in the Scope of Practice of Massage Therapists:

- Diagnosis of medical or orthopedic conditions or illnesses.
- The performing of surgery or other procedures requiring a medical license.
- The <u>prescribing</u>, changing, dispensing and administering of <u>legend</u> or over the counter drugs or herbal medication.
- <u>Genital</u>, intra-anal, intra-vaginal manipulation or applications.
- Manipulation of any body structure for the purpose of sexual arousal or gratification of either the client/patient or therapist regardless of who initiates such activity.
- High velocity/low amplitude thrust force to any articulation of the human body as performed in chiropractic, osteopathic or naturopathic adjustments.
- Ear candling.
- Application of ultrasound, electrotherapy, laser therapy, microwave therapy, injection therapy, diathermy or electronic nerve stimulation.
- Depilation, waxing, hair extractions and electrolysis.
- Acupuncture and Chinese Pharmacology.
- Moxibustion through the use of needles.
- Western herbalism.
- Diet and nutritional counseling, including the recommendation of vitamins, supplements and other neutraceuticals.
- Biofeedback.
- Prescription of therapeutic strengthening exercises, including Personal Fitness Training, Tai Ji Quan (T'ai Ch'i Ch'uan), Qi Gong (Ch'i Kung), Yoga Instructor Training.
- Psychological counseling.
- Hypnotherapy.
- Guided imagery intended for counseling or psychotherapeutic processing [101].
- Naturopathy.
- Homeopathy, which includes Bach Flower Remedies.

- Cosmetology or the specific practices intended to beautify the skin.
- Colonic irrigation and other methods of internal hydrotherapy.
- Intentional use of techniques to evoke an emotional response in the client [88, 114].

The list of therapies and disciplines described above is not exhaustive. Though it represents practices that are not within the scope of practice for massage therapy, they may provide benefit for the client/patient. Massage therapists can and often do learn and obtain appropriate licensing and certification to practice and add these disciplines to their "tool bags" within their practice. Massage therapists are expected to meet all legal expectations and requirements of the jurisdiction in which they practice their disciplines prior to implementing them in practice.

Section 200

Competency Requirements for a Massage Therapist in Terms of Knowledge, Skills and Abilities (KSAs)

Section 210 Entry-Level Massage Therapist KSAs

The following competencies represent minimum requirements recommended by the profession for entry level massage therapists. A basic knowledge and understanding of these competencies is expected unless otherwise specified in the language of the competency. These entry-level KSAs are what the profession perceives a new massage therapist would possess in order to enter into professional practice. It is presumed that these KSAs would be gained through education and training and demonstrated through examination in order to obtain license or certification for practice (dependent upon legal expectations of the jurisdiction in which they practice). Each jurisdiction determines its own specific requirements.

Educational institutions, at their own discretion, may provide education and training that goes beyond entry level knowledge, skills and abilities. It is through such educational practices, as well as research endeavors, that our profession will continue to grow and advance. Through such advancement and growth, the profession will continue to inform and refine these entry level requirements.

Section 210.1 Overview of Massage Therapy and Bodywork History / Culture

KSAs relating to origins and the development of the massage therapy and bodywork professions:

<u>Knowledge</u>: Understand origins and the developments of the massage therapy and bodywork professions.

Understand the history of massage therapy and bodywork.

- Global and local developments of massage therapy and its historical applications.
- Integration of massage therapy into Eastern and Western medicine and culture.
 - Countries and cultures that influenced the development of massage therapy and related practices.
- Knowledge of founders of massage therapy methods [9, 60].

Understand the overview of influences involved in the development of massage therapy.

- Practice setting/environmental.
- Cultural.
- Social awareness and acceptance of massage therapy.

- Manual therapy techniques by other allied health professions.
 - Relationships between these different groups.
 - Legal overlaps and potential areas of friction between professions.

Skills: None applicable.

<u>Abilities</u>: Describe the historical, cultural and social influences of massage therapy as it relates to today's practice.

Section 210.2 Anatomy and Physiology

Knowledge, skills and abilities relating to anatomic structures and their locations along with their functions, interactions and relative medical terminology.

Knowledge: Know and understand the anatomic structures and their locations along with their functions, interactions and relevant medical terminologies and relate this information to the practice of massage therapy, indications, contraindications, cautions and benefits.

Anatomic organization

- Levels of organization.
 - Chemical / elements.
 - Molecular.
 - Cellular.
 - Structures and their functions.
 - o Types.
 - o Cell division.
 - Tissues.
 - Structure, organization and location of types of tissues.
 - Epithelial.
 - Muscular.
 - Nervous.
 - Connective.
 - Membranes, their descriptions and functions.
 - Organs.
 - o Types.
 - o Structures and functions.
 - Organ systems.
 - Organism.

Anatomic structures and their functions.

- Body systems.
 - Skeletal System.
 - Muscular System.

- Cardiovascular System.
- Nervous System.
- Endocrine System.
- Lymphatic System.
- Respiratory System.
- Integumentary System.
- Digestive System.
- Urinary System.
- Reproductive System.

Metabolic function

- Anabolism.
- Catabolism.

Homeostasis

- Homeostatic mechanisms.
 - Negative feedback.
 - Positive feedback.
- Hormonal and neural homeostatic regulators.

Structural identification

- Body cavities.
- Body sections.
- Body regions.
- Directional terminology.

Body positions and movements

- Anatomic position.
- Body plane/axes.
- Types of joint movement.
- Joint structures.
 - Joint locations, anatomic name, structure and classification.
 - Relationships between joint structures and types of movement allowed.

Human development and special populations

- Stages of development.
- Understand how the body changes and develops during normal life stages in the following populations.
 - Prenatal and trimesters of pregnancy [73, 103, 108].
 - Birth and infancy [<u>46</u>].
 - Adolescence.

- Adult.
- Elderly.
- End of life.

<u>Skills</u>

- Locate and palpate accessible massage relevant anatomic structures.
- Palpate tissue with the appropriate speed, direction, depth and intention to sense and engage multiple layers of tissues.
- Modify massage treatment plan to accommodate the body changes of individuals in special populations.

Abilities

- Recognize and modify massage in endangerment sites and areas of caution.
- Classify joints by type and location.
- Discuss anatomic structures, their functions and interactions using current medical terminology.
- Demonstrate informed interactions about client/patient status with colleagues and other healthcare providers (maintaining appropriate confidentiality).
- Apply knowledge of anatomy and physiology to determine appropriate massage applications to obtain desired and intended physiologic outcomes.

Section 210.3 Kinesiology

Knowledge, skills and abilities of movement as it relates to the anatomy and physiology of the human body.

<u>Knowledge</u>: Understand movement, relevant anatomic structures and physiological concepts as well as terminology.

Body positions and movements

- Anatomic position.
- Relative positions.
- Body planes.
- Axes.
- Levers.
- Types of joint movement.
 - Single joint movements.
 - Complex movements.

Body mechanics of the client/patient

• Awareness of posture, use of body weight and movement and their effect on determining massage therapy techniques and application.

- Balance, equilibrium and stability as they relate to movement and function.
- Activities of Daily Living (ADLs) and their relation to the client's /patient's quantity and quality of movement and tissue status/tension.

Joint structure and function in relation to kinesthetic theories

Terms of motion

- Force.
- Line of force.
- Motions such as flexion, extension, rotation, abduction, adduction and circumduction.

Components and characteristics of skeletal muscle tissue and the resulting effect on posture and movement

- Types of skeletal muscle contractions.
- Locations, attachments, origin and insertion (See Appendix A: Muscle List).
- Actions of skeletal muscles.
- Skeletal muscle size, shape and fiber direction.
- Stretch reflexes and responses.
- Elasticity.
- Contractility.
- Excitability.
- Extensibility.

Muscular interaction

- Agonists/prime movers.
- Antagonists.
- Synergists.
- Fixators/stabilizers.
- Impact of influences, such as imbalance of length and strength between agonist, antagonist, fixators/stabilizers or synergists

Fascia

- Understand the anatomy, physiology and pathology of fascia.
- Describe how fascia covers and connects all the structures of the human body.
- Understand the characteristics of plasticity and tensegrity inherent in fascia [54, 55, 77].

Range of motion (ROM)

- Types of ROM-- active, passive, assisted and resistive.
- Classification of joints.
- Synovial joint movements.
- Joint play and end feel.
- End feel: hard, firm, soft, vacant.
- Joint range of movement and considerations of normal limits.
- Approximation of attachments by way of movement at the joint or by manual shortening of muscle.

Stretching

- Effects on tissue structure and function.
- Purpose and uses.
- Active.
- Passive.
- Active assisted.
- Active resisted.

Resistive range of motion

- Isometric.
- Isotonic.
 - Eccentric action.
 - Concentric action.
- Reciprocal inhibition.
- Post-isometric relaxation or contract relax.
- Effects on tissue structure and function.
- Purpose and uses.

Posture and movement

- Healthy and pathologic.
- Compensatory patterns.
 - Muscular adaptations.
 - Concept of symmetry.
 - Stability, instability and fixations.

Biomechanics

• Define kinematic and kinetic principles as they relate to the practice of massage therapy.

<u>Skills</u>

- Palpate bony attachments, muscle bellies, tendons and ligaments.
- Demonstrate primary actions of muscles and joints.(see Appendix A: Muscle List).
- Apply stretch and isometric resistance for all major muscles of the body.
- Demonstrate appropriate mechanics to facilitate development of normal client/ patient posture and movement in their activities of daily living (ADLs).
- Demonstrate use of ROM principles in properly mobilizing joints for purposes of assessment, treatment planning and treatment.
- Demonstrate use of passive and resistive actions as assessment and treatment applications.
- Use techniques to sense and release restricted fascia.

<u>Abilities</u>

- Evaluate general movement compensatory patterns and develop a treatment plan to address the findings.
- Evaluate posture, symmetry and movement patterns on a client/patient and apply appropriate massage treatments.
- Demonstrate verbally directing a client/patient to actively shorten/lengthen all major muscles of the body to support assessment and treatment.

Section 210.4 Pathology

Knowledge, skills and abilities related to the physiologic and psychological processes resulting from injury and/or illness as they relate to massage therapy.

<u>Knowledge</u>: Understand patho-physiological terms and processes resulting in/from injury and disease as they relate to massage therapy.

Understand mental health illnesses and common associated terms as they relate to massage therapy.

Common pathologies along with their etiology, signs/symptoms, complications and treatment considerations as they relate to massage therapy

- Prevalent pathologies by body system.
- Indications for massage therapy.
- Local and absolute contraindications for massage therapy.
- Cautions, adaptations and limitations based on:
 - Specifics of condition.
 - Techniques/approaches.
 - Therapist's knowledge, skills and abilities.
- Proper sanitary procedures their purpose and use.
- Knowledge of how to access authoritative information on pathological conditions and general medical information.

Common disabilities and their specific restricting characteristics and considerations in relation to massage therapy

- Identify characteristics of common disabilities and impairments.
- Identify limitations presented by common disabilities and impairments.

Pharmacology

- General classification and types of drugs, herbs, supplements, their effects and their side effects.
- Massage therapy considerations and potential responses to general classes of drugs, herbs and supplements.
- Use of authoritative, medically accepted drug reference to look up drugs, their effects and their side effects.

Chronic versus acute onset

- Definitions.
- Massage therapy considerations and cautions.

Dysfunctions caused by improper body mechanics, posture and repetitive movements

Inflammatory processes

- Functions, effects on tissues/structures, effect of treatments and contraindications and adaptive measures.
- Wound/tissue repair process.
- Stages of healing acute, sub-acute and maturation stages.
- Level of severity.

Muscular pain patterns

- Trigger point and referred pain.
- Fascial planes and their relation to trigger or tender point pain/tenderness and referred pain.

Nociception and pain pathways, physiological processes, functions, effects on tissues/structures, client/patient response [76, 95, 120].

Standard precautions and sanitary practices for infection control and special methods for handling biohazards

• Compliance with Operational Safety and Health Administration (OSHA) regulations relevant to the practice of massage therapy.

First Aid and CPR – American Red Cross or equivalent

• Emergency action plan.

<u>Skills</u>

- Conduct a client/patient health history and intake with an understanding of the implications of reported pathologies on a massage treatment.
- Adapt massage treatments according to client's disabilities and impairments.

<u>Abilities</u>

- Demonstrate how to adapt massage therapy to clients/patients based on pathologies/conditions, stage of healing and level of severity present.
- Accommodate clients/patients who have disabilities resulting from diseases or injuries.
- Apply standard precautions and procedures of infection control for the individual, the equipment and the practice environment.
- Demonstrate when to refer a client to his/her physician because of potential for contraindication.
- Demonstrate researching a pathological condition, medications and herbs and determine appropriateness of massage therapy.
- Research information about common disabilities and impairments.
- Identify and appropriately respond to medical emergencies using applicable first aid and CPR as needed.
- Observe and identify signs of autonomic (sympathetic and parasympathetic) nervous system activation.

Section 210.5 Assessment, Treatment Planning and Documentation

Knowledge, skills and abilities relating to practices, procedures and relative terminology of assessment, treatment planning and documentation.

Knowledge: Understand basic aspects of assessment process, treatment planning, documentation, procedures and relative terminology.

Understand the science, application, philosophy and legal and ethical factors involved in client/patient assessment

- Communication (verbal and nonverbal).
- Client/patient consultation, health history and intake procedures/documents.
- Subjective client/patient information.
- Objective findings gained through observation and palpation.
- Postural and functional evaluation.

• Plan of treatment based on client/patient assessment, client/patient goals (long and short term).

Physical assessment

• Visual and palpatory assessment of tissue, skin, posture and movement.

Basic client/patient documentation components

- Informed consent.
- Waiver of liability.
- Medical release.
- Medical clearance.
- Health history and current condition/status.
- Record of:
 - Client/patient name.
 - Session date.
 - Client/patient health concerns/considerations for treatment.
 - Assessments and findings, if applicable.
 - Treatment administered.
 - Treatment outcomes and goals.

Treatment plan

- Purpose of the session(s).
- Collection and interpretation of client information and assessment findings.

Health Insurance Portability and Accountability Act (HIPAA) regulations that apply to massage therapy

- Client /patient confidentiality.
- Storage, maintenance/security, transport and release of client/patient personal health information (PHI).

<u>Skills</u>

- Demonstrate the ability to conduct a client/patient interview including a health history and client/patient consultation.
- Perform assessment procedures including visual, auditory, verbal, written and physical evaluation/palpation.
- Perform posture and movement analysis as they relate to the treatment plan.
- Use palpation to locate, assess and treat tissues during pre-massage assessments and those used during the session.
- Demonstrate effective communication skills including writing, listening and speaking.

Abilities

Table of Contents

- Obtain legal written informed consent initiating the professional relationship and prior to administering massage therapy.
- Read and interpret client/patient intake and health history form.
- Determine appropriate treatments based on client/patient health history, intake form and client/patient consultations (initial and follow-up).
- Formulate a treatment plan based on findings from a health history, an intake interview and an assessment process.
- Explain the treatment plan, intended outcomes and potential adverse outcomes to the client/patient and gain consent, including framework for how to modify the plan based upon feedback, prior to administering massage therapy.
- Generate relevant charting documentation for each session which meets legal requirements for health care and wellness practitioners.
- Prepare, maintain and safeguard client/patient records in accordance with federal, state and municipal laws.
- Explain chosen techniques and relate the choice back to the physiological, psychological and anatomic effectiveness of the technique.
- Describe how to refer client/patient to appropriate healthcare provider when client's/patient's needs exceed the skills and abilities of the therapist or are outside the massage therapy scope of practice.
- Modify a treatment plan during subsequent sessions based on changes in the client's/patient's health or desired outcomes [1, <u>13</u>, <u>45</u>, <u>67</u>, <u>85</u>, <u>112</u>].

Section 210.6 Research and Information Literacy

Preface

Qualitative and quantitative research heightens every aspect of massage therapy. Massage therapists informed by all domains of scientific research support the efficacy of the field. Evidence-based practice supported by research facilitates therapeutic outcomes and professional dialogue. Each of the sections within the Massage Therapy Body of Knowledge is informed by research.

Knowledge: Understand the necessity and process of scientific investigation, its importance to the massage therapy profession, literature review skills, information literacy and relevant terminology.

- The professional necessity, importance and further development of the research body of literature regarding massage therapy.
- The scientific process relating to evidence-based knowledge, medicine and massage therapy practice.
- The importance of the peer review process and critical appraisal of published research.
- Electronic literacy skills, including the effective use of search engines, online databases and determination of information quality (i.e., accuracy of web-based information).

- Key components of research methodologies:
 - Scientific method (observation, hypothesis, experiment, conclusions).
 - Types of research studies and their importance.
 - Qualitative and quantitative methods.
 - The key parts of a scientific paper (abstract, introduction, methods, results, discussion and conclusion).
- Key terms relating to research.
- Impact of bias on research.
- Research ethics.
- Method of formulating a basic research question and creating a rigorous case study.
- Differentiation between a case study and a case history.
- Identification of personal methods used to keep up to date on new research developments.

<u>Skills</u>

- Demonstrate the ability to find and use scientific databases.
- Search the literature on a specific topic and obtain a complete copy of relevant and reliable articles.

<u>Abilities</u>

- Develop an inquiring mind and question current massage therapy practice.
- Discuss the validity and reliability of literature sources.
- Read and assess current massage therapy and related literature for its strengths and weaknesses.
- Communicate current research knowledge to clients, colleagues and the public.
- Explain ways to support, collaborate and participate in massage therapy and/or related research.

Section 210.7 Business Practices, Laws and Regulations

Knowledge, skills and abilities relating to business practices, legal requirements and professionalism as related to massage therapy.

Knowledge: Understand business practices, legal requirements and professionalism.

Municipal, state and national laws and regulations

- Importance of regulation on massage practice, massage quality, professional reputation and growth of the profession.
- Applicable state and local licenses, certification and registration laws and certification as a profession status.
 - Understand the difference between and expectations of legal versus profession status.
 - Stay current with changes in laws and rules.

- Maintain fiduciary responsibility as a licensed/regulated profession.
- Understand legal differences and similarities between states.
- Identify differences among licensing, certification and registration.
- Identify differences among types of certification (e.g., legal, professional and educational).

Business practices

- Employment overview.
 - Types of business entities, venues and legal requirements.
 - Responsibilities associated with being the employee and employer.
 - Key components of contracts for sole proprietors versus employment agreements for employees and related legal differences between them.
 - Job search and employment interviews.
- Marketing.
 - Basic marketing principles, advertising, networking and their application to massage therapy.
 - Common marketing tools resume, cards, flyers, brochures and internet.
 - Ethical marketing considerations to reflect therapist's training, licensing and certification accurately.
- Insurance for therapist and practice.
 - Liability and malpractice.
 - General or premise liability.
- Insurance billing basics.
 - Recognize CMS1500, the universal billing form.
 - Understand terms and conditions.
 - Understand requirements for becoming a provider and contract considerations with being a preferred provider.
 - Define, recognize and avoid medical fraud.
- Finances
 - Basic financial requirements and responsibilities for a therapist as an employee, as a sole proprietor engaged in independent contracting or as a business owner/ employer.
 - National, state and local tax requirements.
 - Fiscal accountability and integrity.
- Administration
 - Responsibilities and requirements of running a massage practice.
 - Securing and maintaining records.
 - Client/patient records.
 - Practice records (i.e., schedules/appointment book).
 - Financial records.
 - o Business license.

Scope of practice

- Massage therapy regulations at the local, state and national level and how these affect a massage practice.
- Awareness and avoidance of violation of state, national or local laws regarding the practice of massage therapy.

Professional organizations

- Understand the importance of professional organizations.
- Understand their impact on the local, state and national levels.

Professionalism in business

- Awareness of business etiquette in verbal, non-verbal, written and electronic communications.
- Legal terminology as related to licensure and certification.
- Types of business communications.
- Benefits of networking among peers and between professions.
- Referrals.
 - Practices, legalities and ethics.
 - Risks and responsibilities.
 - Basic knowledge of scope of practice of other health care professions.
- Continuing Education.
 - Applicable legal and professional responsibilities and requirements.
 - Ethics relating to marketing and level of training received through continuing education.

Americans with Disabilities Act (ADA)

- Compliance expectations.
- Reasonable accommodations.

<u>Skills</u>

- Write a resume and basic business letter.
- Write a basic business plan and mission statement.
- Demonstrate basic employment interview skills

Abilities

- Develop practice policies that reflect boundaries and expectations.
- Be aware of changes to and abide by laws and standards that govern the profession.
- Uphold professional standards of practice and standards of care.

- Demonstrate ethical and professional behavior and presentation consistent with standards in the massage therapy field.
- Behave in a trustworthy and responsible manner and be honest in all professional settings.
- Demonstrate and explain basic marketing techniques and methods.
- Read and interpret a contract or proposal or solicit the services of someone who can.
- Build a support network and develop a contact list for referrals.
- Maintain basic financial records.
- Follow acceptable accounting, bookkeeping and monetary practices.
- Demonstrate compliance with current personal and/or business tax laws.
- Seek supervision/consultation/counseling/mentorship to deal with issues (business, personal, or therapeutic) that arise during practice.
- Discuss, during the initial meeting, therapist and client/patient boundaries and responsibilities in the business/therapeutic relationship.
- Continue education and expand knowledge of new and developing information and techniques that benefit clients/patients, practice and self.

Section 210.8 Boundaries, Ethics and the Therapeutic Relationship

Preface

The quality of the therapeutic relationship is based on ethical behavior, clear boundaries and the therapist's capacity to pay attention to his or her own body and mind. According to research, this quality impacts the central nervous system of the client. Consequently, this section begins with a research-based understanding of therapeutic relationships from the field of social neuroscience. Research in this field has highlighted the need for massage therapists to integrate information on the neurobiology of interpersonal relationships at a clinical level. This research includes much more clarity on the neurobiology of empathy, <u>altruistic love and kindness</u>. To facilitate that understanding, some additional detail has been added, both in this section and in the terminology section. This is a new paradigm evolving from the research literature on interpersonal relationships that affect every helping profession [<u>35</u>, <u>43</u>, <u>44</u>, <u>47</u>, <u>74</u>, <u>96</u>].

Knowledge, skills and abilities relating to professional boundaries and ethics in relation to the development and maintenance of therapeutic relationships.

Knowledge

Therapeutic relationship

- Description and components.
- Therapist/client/patient interaction and communications.
 - Differentiate between emotional and psychological processing (outside scope of practice for massage therapists) and handling emotions (in scope of practice).

- Understand that clear communication in the therapeutic relationship is important to successful health outcomes.
- Client/patient disclosure and confidentiality.
- Understand impact of therapist self disclosure on therapeutic relationship.
- Personal and professional boundaries.
- Professional boundary between massage therapy and psychotherapy.
- Trauma and shock.
 - Understand that client/patients may hold stress, trauma and shock in their bodies and these can be sensed by the therapist [48, 50, 65, 66, 71, 87, 102].
- Dual relationships.
- Transference/countertransference.
- Psychological defense mechanisms.
- Empathy.
 - Understand that empathy is generated in the brain and heart by mirror neurons in order for the therapist to feel what the client/patient is feeling.
 - Understand that the therapist's empathy develops the client/patient's felt sense of being nurtured [18, 31, 32, 94, 99,100].
- Body language.
 - Understand that body language, postures and body shapes, forms and tissue patterns may be expressions of psychological history coupled with chronic stress, trauma and experiences of shock in the past. Tissue work may or may not impact these expressions.
 - Understand that when soft tissue does not respond to massage, the tension may be psychological or emotional in nature. Attempting to force this tissue to change may re-traumatize the client/patient [58, 68].
- Therapeutic environment.
- Self regulation.
 - Understand that self regulation is modulated by two pathways. One pathway is from the body and heart to the brain via sensation and feeling (bottom up). The second pathway is from the brain to the body via cognitive thinking and memory (top down) [62, 110].
 - Massage therapy strongly affects the first pathway, from the bottom up.
 - Understand that the quality of attention is based on self-regulation utilizing three simultaneous neurological pathways: <u>attunement</u>, <u>intersubjectivity</u> and nurturing touch [72, 89, 90, 92, 93].
- <u>Attunement</u>
 - Understand that a therapeutic relationship based on safety and trust includes the process of *attunement* [96, 97].
- Intersubjectivity
 - Understand that the client/patient and the therapist co-regulate each other's nervous systems and cardiovascular systems through resonance, which builds emotional coherence.
 - Understand that each person in the therapeutic relationship is affecting the other's nervous and cardiovascular systems equally.

- Understand that intersubjectivity involves the nervous systems of the client/patient and therapist seeking to remain oriented to the present rather than the past [6, 105, 106].
- Social Neuroscience
 - Understand neurological self-regulation and integration of the mind-body has two components:
 - Internal self-regulation through <u>interoceptive</u> (self) awareness of the body from the inside of it.
 - Socially, in relationships, through exteroceptive processing with the special senses such as seeing, touching and hearing others.
 - Know that the therapist is responsible for building and maintaining a therapeutic relationship in which normal self regulation can manifest [5, 17, 21, 22, 24-27, 78, 79, 86].
- <u>Altruistic love and kindness</u>
 - Understand that nurturing touch stimulates the release of the hormone oxytocin and deepens the empathetic response in both the therapist and the client/patient.
 - Understand that people who are suffering need compassion.
 - Having a warm and generous affect seems to bring reassurance and joy to others.
 - Understand that all human beings are of equal worth [37, 38, 75].

Ethics

- Code of ethics.
- Ethical and legal considerations and ramifications of harassment, prejudice and discrimination in the workplace.
- Ethical challenges relating to personal beliefs and biases.
- Ethical challenges relating to misconduct of peers.

Sexual misconduct

- Definition.
- Misconduct by the client/patient or the therapist.
- Power differentials.
- Recognition and appropriate responses.
- Ethical and legal ramifications.
- Preventive measures behavior, communications, policies, boundaries and presentation.

The mind, body and spirit connection

- Healing processes.
- Therapeutic processes.
 - Understand that emotions may surface for a client/patient during a massage, that this is normal and that emotions are not harmful [10, 56].

<u>Skills</u>

Therapeutic relationship

- Therapist/client/patient interaction and communication.
 - Demonstrate active listening and reflection.
 - Actively acknowledge the client/patient as he/she speaks using soft eye contact, head nodding, sounds of recognition and/or words of recognition.
 - Acknowledge emotions when they arise.
 - Provide support for a client/patient experiencing an emotional release during a massage therapy session.
- Personal and professional boundaries.
 - Demonstrate maintenance of boundaries while applying massage therapy.
 - Demonstrate supporting client/patient while experiencing and/or expressing thoughts and feelings.
 - Terminate, in a professional manner, a session when a client/patient violates and is unwilling to respect a therapist's professional boundaries.
- Body language.
 - Notice when soft tissue does not respond to massage.
 - Move on to another area of the client's/patient's body if one area is unresponsive.
- Self regulation.
 - Maintain a steady pace during the massage that can be integrated by the client/patient.
 - Be able to refer to mental health professional when appropriate.
- <u>Attunement</u>.
 - Use conscious breathing to center attention in the therapist's body.
 - When using deep or vigorous techniques, pause periodically and observe the client's/patient's breathing.
- Intersubjectivity.
 - Regularly scan the whole body of the client/patient while in contact.
 - Observe signs of the client's/patient's autonomic nervous system seeking homeostasis, such as skin color tone, breathing, shaking or trembling, eyes glazing, etc.
 - Modulate input to the client/patient slowly while the autonomic nervous system is active.
 - Understand that feeling awkward or making an occasional mistake during a session can be a normal aspect of the therapeutic relationship.

Ethics

- Communicate with a fellow therapist about alleged or perceived unethical or illegal behavior(s).
- Follow proper reporting processes relating to unethical or illegal behavior of other therapists and other health care professionals.

Sexual misconduct

- Demonstrate awareness of how therapist's body might touch client/patient and avoid incidental and/or inappropriate body contact.
- Do not sexualize communications or initiate or engage in sexualized or sexual contact with clients/patients regardless of who initiates.
- Communicate boundaries in appropriate professional manner without blaming or shaming the client/patient.

Abilities

Therapeutic relationship

- Therapist/client/patient interaction and communications.
 - Therapist periodically attends to own sensations while in contact with the client/patient, acknowledging and addressing them as appropriate.
 - Therapist provides non-judgmental support.
 - Therapist avoids probing questions that serve to elicit psychological or emotional information.
 - Therapist avoids interpreting or giving advice regarding client's personal issues.
 - Therapist conveys a sense of dignity and respect, in both actions and words, towards clients/patients, colleagues and the profession.
 - Therapist demonstrates consistent patience in dealing with others.
 - Therapist demonstrates appropriate communications during a session by remaining focused on client's/patient's intentions, rather than unfocused conversation.
- Client disclosure and confidentiality.
 - Safeguard the client's/patient's confidentiality unless information is released by client/patient or compelled by law.
- Personal and professional boundaries.
 - Respect boundaries of client/patient.
 - Respect professional boundaries of other health care providers involved in the client's/patient's care.
 - Establish, communicate and maintain healthy professional boundaries.
 - Boundary between massage therapy and psychotherapy.
 - Be willing to not know the source or cause of a client's/patient's pain and suffering.
 - Be thoroughly familiar and operate with a rigorous code of ethics.
- Dual relationships.
 - Avoid situations that create conflicts of interest and dual relationships.
- Psychological defense mechanisms.
 - Recognize client's/patient's psychological defense mechanisms and, when necessary, take appropriate steps to reduce adverse impact on the therapeutic relationship.
- Empathy

- Therapist periodically notices own sensations and feelings related to empathy and compassion.
- Therapeutic environment.
 - Establish and maintain an environment of emotional safety and trust for the client/patient.
- Self regulation.
 - Regularly sense both the therapist and the client/patient body systemically as one whole continuum of fluid, bone and membrane.
 - Acknowledge (nonverbally) any personal feelings, such as fear and anxiety, during a massage and hold them as normal.
 - Visualize the client/patient as one interconnected whole being during the massage.
 - Maintain conscious awareness of the location of mental and physical attention while in relationship with the client/patient.
 - Scan own body periodically in order to sense areas of tension and holding during a session and release when appropriate.
 - Avoid judgment, withdrawal or psychological intervention when emotions surface for a client/patient.
 - Stay present with client/patient, grounded and centered in self, when emotions surface for client/patient.
 - Seek supervision if thoughts, feelings and emotions that come up for client/patient trigger personal history or a personal emotional process.
- <u>Attunement</u>.
 - Stay mentally and emotionally present with the client/patient while working.
 - Be aware of how attention moves periodically between the body-mind of the therapist and that of the client/patient.
 - The therapist should be aware when attention is separated from self or client/patient for prolonged periods and regularly settle attention back into the therapist body.
 - Be aware of impact of emotions on your ability to maintain a therapeutic relationship and perform massage therapy.
 - Monitor the speed or tempo of own sensations, thoughts and feelings, slowing them down in order to achieve attunement.
 - Regulate the tempo of the massage to build resonance and sustain it over time.
- Intersubjectivity.
 - Therapist periodically focuses attention on his/her heart, respiration rate and visceral sensations as a part of <u>interoceptive awareness</u>.
 - Therapist becomes aware of, acknowledges and releases, when appropriate, own mundane thoughts of the past or future while in contact with client/patient.
- <u>Altruistic Loving Kindness</u>.
 - Periodically practice thoughts and feelings of loving kindness while in contact with the client/patient.

Ethics

- Demonstrate ethical behaviors with clients/patients, peers and other professions.
- Operate under a professionally recognized code of ethics.
- Practice with competence and within the individual knowledge, skills and abilities and the legal limits of the massage therapy profession.
- Refrain from using substances that would interfere with the ability to provide safe and effective massage therapy and to make ethical decisions.
- Avoid circumstances and situations where the ability to make ethical decisions is impaired or made difficult.
- Do not discriminate against a client's/patient's race, color, religion, gender, sexual orientation, national origin, age, disability, handicap, health status, physical appearance (including size, shape and body art), marital status or veteran's status.
- Represent credentials and training honestly.

Section 210.9 Body Mechanics and Self Care

Knowledge, skills and abilities relating to body mechanics for self care and application of techniques.

Knowledge: Understand the body mechanics for self care and application of techniques.

Body mechanics of the therapist to optimize application while minimizing adverse effects and supporting longevity in the field

- Posture, balance and positioning.
- Structural alignment of bones and joints.
- Use of body weight and leverage.
- Application of various forms of force.
- Foot positions and stances.
- Understanding of the relationship among effective body mechanics, massage therapy applications and injury prevention.
- Injury prevention strategies.

Table and chair mechanics

- Table/chair height adjustment based on size and shape of client/patient, type of massage applications to be administered, intended outcomes of massage therapy and injury prevention for therapist.
- Mechanics involved in the use of floor mats and other massage therapy tools.

Self Care

- Benefits and impact of self care in personal and professional arenas.
- Regular physical activity.
- Proper nutrition.
- Adequate rest.
- Structured breathing practices.
- Stress management.
- Self-awareness of muscle tension, pain and fatigue and state of mind.
- Self-massage techniques.
- Self-administered hot and cold hydrotherapy and related therapeutic modalities.
- Boundary practices (physical, mental, emotional, spiritual, energetic, etc.).
- Prevention of self-inflicted injuries resulting from improper body mechanics.

Burnout

- Recognize, prevent and manage professional burnout.
- Practice skills advancement and diversification through continuing education to manage burnout.

<u>Skills</u>

- Demonstrate efficient and effective body mechanics during massage therapy application.
- Correctly set up and adjust a massage table, chair and other massage-related equipment.
- Demonstrate appropriate and professional client/patient draping techniques.
- Demonstrate correct client/patient positioning based on specific client/patient and therapist health and safety needs including appropriate positioning for pregnancy trimesters.

Abilities

- Use efficient and effective body mechanics for injury prevention of the massage therapist and the client/patient.
- Identify and adopt self-care practices, which support personal and professional goals, prevent injury and burnout and enhance longevity in the field.

Section 210.10 Massage Techniques and Physiological and Psychological Effects

Knowledge, skills and abilities relating to massage applications and the resulting physiologic and psychological effects.

<u>Knowledge</u>: Understand massage applications and the resulting physiologic and psychological effects.

Massage therapy applications

- Theoretical context of the massage discipline(s) being taught.
- Types of soft tissue massage techniques and their functions/purposes. Techniques may include and is not limited to:
 - Compression
 - Friction.
 - <u>Gliding/Stroking</u> (effleurage).
 - <u>Holding</u>.
 - <u>Kneading</u> (petrissage).
 - <u>Lifting</u>.
 - <u>Movement and mobilization</u> (stretching, traction, range of motion and gymnastics).
 - <u>Percussion</u> (tapotement).
 - Vibration.

Physiological response

- Anatomic structures.
- Physiological and biochemical processes.
- Psychological processes.
- Energy systems.
- Physiological and pathological processes of trauma, wound healing and tissue repair and their implications for the selection and application of a massage treatment.
- Contemporary pain-control theories as they relate to the application of massage therapy.

Client/patient positioning and draping

- Positioning supine, prone, side-lying, semi-reclining and seated.
- Use of supportive devices, including bolsters, wedges and rolls in relation to client/patient position, comfort and support.
- Draping variations which maintain client/patient modesty, warmth and comfort while allowing appropriate access for massage therapy applications.

Assessment

• Process/methods of assessing and reassessing the status of the client/patient, using standard assessment techniques to determine appropriate massage treatment.

Indications and benefits/cautions

- Specific applications of massage techniques and their potential benefits, desired outcomes and specific precautions.
- Sequence of techniques application based on theoretical understanding, current tissue condition and intended outcomes.
- Pressure and depth.
- Rhythm and pacing.
- Direction.
- Duration.
- Flow, drag and continuity.
- Use of equipment, tools and appliances.
- Positioning for ease of applications to facilitate achievement of intended outcomes.

Psychophysiology

Chronic stress and trauma and their effects on all body systems [<u>33</u>, <u>42</u>, <u>48</u>, <u>66</u>, <u>71</u>, <u>80</u>, <u>81</u>, <u>115</u>, <u>116</u>].

Energetic theory

- Describe basic energetic theory from a common theoretical framework, such as:
 - Eastern Frameworks:
 - o Chakras.
 - Body Currents.
 - o Meridians.
 - o Acupoints.
 - Western/Hybrid Frameworks
 - o Aura fields.
 - Poles and zones.
 - Sound, vibration and color as energy expressions [121].

Documentation

• Appropriate healthcare and wellness documentation for recording each session, meeting minimum legal expectations.

<u>Skills</u>

- Formulate an appropriate treatment plan prior to each session, obtaining permission from the client before implementing the plan.
- Demonstrate use of multiple massage techniques and describe their proper use and contraindications.
- Demonstrate application of massage techniques using appropriate body structures with effective body mechanics, being self aware and client focused.
- Demonstrate ability to palpate, using massage techniques, various body structures to include muscles, tendons, ligaments, fascia, bones, lymph nodes, vessels, scar tissue, adhesions, etc.

- Demonstrate varying rhythms/pace, depth, stroke sequence and flow/continuity for specific applications and intended outcomes.
- Demonstrate the use of massage tools/equipment as applicable. Explain any contraindications or indications for their use.
- Demonstrate the use of verbal and non-verbal communication to gain client/patient feedback and explain its importance and the therapist's appropriate response.
- Adjust the tempo, pace, rhythm, pressure, depth, direction and duration of the massage strokes and techniques to be appropriate to the desired response and current tissue condition in conjunction with client/patient requirements and feedback.
- Position and drape the client/patient for the application of massage therapy.
- Communicate and obtain informed consent prior to administering massage therapy.

Abilities

- Regularly observe the client's/patient's whole body for autonomic activation while working and adjust appropriately when overstimulation occurs.
- Acknowledge the client/patient as he/she speaks without directing, leading or counseling.
- Avoid disruptive personal disclosure during application of massage therapy.
- Demonstrate active and reflective listening with minimal disruption to the flow of application and client's/patient's experience of the massage.
- Ask open-ended and/or explorative questions when necessary to gain relevant information to ensure appropriate application of massage.
- Avoid sharing personal interpretations of perceived underlying psychological issues with the client/patient and avoid personal interactions or disruptions to the client's/patient's experience.
- Perform an assessment procedure and interpret the findings as they relate to the selection and application of massage techniques to address treatment goals.
- Select and apply appropriate massage techniques according to evidence-based guidelines when they are available.
- Apply techniques based on treatment plan as determined from evaluation of the assessment findings of the client/patient or as directed by referring provider(s).
- Describe appropriate methods of assessing progress over time, interpret the results and project outcomes.
- Document subjective and objective findings, treatment goals, treatment and treatment outcomes in accordance with minimum legal expectations for healthcare and wellness professionals.
- Synthesize information obtained in a client/patient interview and assessment to determine the indications, contraindications and precautions for the evidence-based application of massage therapy as is appropriate for common pathologies and musculoskeletal issues and conditions, their location, onset, severity and stage of healing.
- Formulate a progressive treatment addressing long- and short-term goals (when applicable) and appropriately apply the massage to obtain intended outcomes.
- Identify personal perception of energy.

Section 210.11 Therapeutic Modalities

Knowledge, skills and abilities relating to the physiological response to the application of therapeutic modalities, proper application, indications and contraindications and safety considerations

Knowledge: Understand the physiological response to the application of therapeutic modalities, proper application, indications and contraindications and safety considerations.

Physiological response

- Physiological and pathological processes of trauma, wound healing and tissue repair and their implications for the selection and application of therapeutic modalities as used in conjunction with a massage treatment [87].
- Contemporary pain-control theories as they relate to the application of a therapeutic modality
- Body's physiological responses during and following the application of therapeutic modalities
- Understand that massage lubricants and essential oils can have a physiological impact on the client/patient and therapist.

Assessment

• Process and methods of assessing and reassessing the status of the client/patient using standard techniques and documentation strategies to determine appropriate modality treatment.

Applications

- Indications, contraindications and precautions applicable to the use of therapeutic modalities.
- Manufacturers' and, if applicable, institutional, state and federal, standards for the operation and safe application of therapeutic modalities and related supplies and equipment.

<u>Skills</u>

- Apply heat and cold safely and appropriately.
- Inspect the equipment and supplies used when applying therapeutic modalities.
- Inspect treatment environment to ensure compliance with hygienic practices for standard precautions and for potential safety hazards.
- Select and apply appropriate therapeutic modalities according to evidence-based guidelines.
- Position and prepare the client/patient for the application of therapeutic modalities.

• Document treatment goals, expectations and treatment outcomes.

Abilities

- Describe and interpret appropriate measurement and assessment procedures as they relate to the selection and application of therapeutic modalities.
- Interpret the results of assessment and determine an appropriate therapeutic modality program for achievement of the treatment goals.
- Determine the appropriate therapeutic modality application, progressive plan and appropriate therapeutic goals and objectives based on the initial assessment and regular reassessments.
- Describe appropriate methods of assessing progress when using therapeutic modalities and interpret the results.
- Obtain and interpret baseline and post-treatment objective physical measurements to evaluate and interpret results.
- Synthesize information obtained in a client/patient interview and assessment to determine the indications, contraindications and precautions for the selection, client/patient set-up and evidence-based application of therapeutic modalities for injuries in the acute, sub-acute and maturation stages of healing.
- Formulate a progressive treatment plan and appropriately apply the modalities.
- Document subjective and objective findings, treatment goals, treatment and treatment outcomes in accordance with minimum legal expectations for healthcare and wellness professionals.
- Demonstrate the ability to use massage lubricants safely within a massage practice.

Section 300

Terminology

Preamble

Terminology was added to the MTBOK with the specific intention of providing definitions of particular terms as they are to be used in the context of this MTBOK document. The MTBOK Task Force felt it was necessary to set down definitions of certain terms for the following reasons including, but not limited to:

- Assisting readers to develop a uniform approach to understanding the MTBOK document and any questions with which they may be concerned.
- Helping establish a common terminology to reduce any misunderstanding.
- Clarifying commonly used terms felt to be misused in the field of massage therapy.
- Defining those terms where there seems to be a lack of clarity on how they are being in the field.

Section 300 does not have any legal status. Whenever the defined terms are used within the text of the MTBOK document, it is assumed that they have the meanings that have been attributed to them within this Section 300.

Altruistic love and kindness - The assertion of a common humanity in which other people are worthy of attention and affirmation for no utilitarian reasons but rather for their own sake. The emotional ground of this kindness gives rise to helping behaviors that are not based on reciprocity or any other benefits to one's self, although such benefits occur and need not be resisted [28, 36-38, 75].

Assessment – An appraisal or evaluation of a client's/patient's condition that may be based on some or all of the following: health and medical history, client's/patient's account of signs and symptoms, current <u>diagnosis</u> from primary healthcare provider and functional data gathered by means of information provided on written intake form, observation, palpation, range of motion, movement and special tests as applicable and relating to determining a person's ability to perform everyday tasks and activities of daily living.

Attention - The direction of awareness to any object, sense or thought for the sake of gaining clarity. Such awareness may precede or occur simultaneously with the motor activity of a massage. Attention as a neurological function has two phases:

- **Focused**: the capacity to observe and be aware of how and where the hands and body of the therapist are located while giving a massage.
- **Unfocused**: the capacity to observe and be aware of the surrounding environment during a massage, such as the treatment room, outer office space and weather outside the windows, etc. Sometimes called *exteroceptive awareness*.

The nervous system naturally focuses and unfocuses attention in a rhythmic pattern within a range of possible tempos. See <u>Attunement [57, 118]</u>.

Attunement – The process by which the phases of attention among two or more people and the environment come into harmony through resonance or cohesion (union) of their interpersonal brain activity, especially from physical touch. This includes the capacity of a massage therapist to direct attention consciously among his/her body-mind, the bodymind of the client and the environment. This usually occurs at a slow tempo in order to stabilize the autonomic nervous system. Attention naturally focuses and unfocuses rhythmically during a massage. Attunement is a foundation for establishing safety and trust in a therapeutic relationship. See <u>Attention [13, 96, 97]</u>.

Body Language – The <u>intersubjective</u> process in which posture, hand gestures, eye contact, facial expressions, vocal tones and body movements nonverbally convey feelings and emotions between two people, especially the client/patient and therapist. The proper and improper body mechanics, for example, of a massage therapist, which is a form of body language may impact the efficacy of the massage on the client/patient. See Intersubjectivity [58, 59, 68, 113].

Body, Mind and Spirit - The three primary interrelated, interacting and integrated layers that comprise a healthy, balanced and unified human being. Mind includes the thoughts, feelings and emotions (psychology) and self-awareness. Body refers to the three dimensional structure and functions of the eleven systems that make up the physical body. Spirit, the most underlying layer of the three, is responsible for organizing, catalyzing and enlivening both the Mind and Body. It includes that aspect which senses a connection to the higher or a deeper meaning in life and the fundamental vitality that animates all human life. (See full definition below.) When one or more of these layers is out of balance due to some physical, psychological and/or spiritual reason, a human is considered to be in a state of "dis-ease." Acknowledging the mind/body/spirit connection, the massage therapy profession holds that massage therapy treatment can lead to improved health outcomes by facilitating the balance and connection of body, mind and spirit.

Bodywork – Bodywork is a term used in complementary and integrative medicine (CIM) to describe any therapeutic, healing or personal self-development practice which may include massage, touch, movement or energetic work. One form of bodywork is massage therapy and the terms *massage therapy* and *bodywork* are frequently used interchangeably. However, while bodywork includes all forms of massage therapy, it also includes many other types of touch and incorporates many other skills and techniques to enhance awareness of the mind-body-spirit connection [15, 19, 49].

Certification - Professional certification is the voluntary process by which a nongovernmental organization grants certification to an individual that possesses certain skills or abilities relevant to a field of practice. The process of professional certification may include review, examination or assessment. The validity of any type of certification depends upon the integrity and authority of the certifying organization. In the massage profession, there are a few state governments that grant certification (rather than licensure) to massage therapists. In these cases, state certification empowers the certified massage therapists to use a specific title that noncertified therapists are restricted from using. But it does not limit noncertified therapists from performing massage. See also <u>License</u> and <u>Registration [2, 12]</u>.

Client – A recipient of a service be from a wellness or healthcare professional regardless of his or her health status. All patients are clients but not all clients are patients. See <u>Patient</u>.

Clinical Massage – Massage therapy practice involving more extensive use of assessment, specific focused techniques and applications with the intention of achieving clinical treatment or functional outcomes and remediation of symptoms, also referred to as treatment, orthopedic or medical massage.

Complementary and Integrative Medicine (CIM) Practices – A group of diverse medical and health care systems, practices and products that are not generally considered part of conventional medicine. Complementary medicine is used together with conventional medicine. An example of a complementary therapy is using aromatherapy, a therapy in which the scent of essential oils from flowers, herbs and trees is inhaled to promote health and wellbeing to help lessen a patient's discomfort following surgery. Alternative medicine is used in place of conventional medicine. An example of an alternative therapy is using a special diet to treat cancer instead of undergoing surgery, radiation or chemotherapy that has been recommended by a conventional doctor. These CIM practices are working to form a bridge between allopathic and natural healing methods through education, research and dialogue and working with National Institutes of Health (NIH). Massage therapy, in general, is also defined as a CIM practice. Formerly CAM (Complementary and Alternative Medicine) practices.

Compression - See Techniques - Compression.

Deep Tissue – Description of the tissues beneath superficial structures which are being treated and not the techniques employed. This term is commonly misused to describe a specific technique.

Deep Tissue Work/Massage – A generic term commonly used to describe a variety of techniques to address specific deep tissues and structures, regardless of the force/pressure being exerted or level of discomfort/pain experienced during and/or resulting from the application.

Diagnosis –

• Western Medical – The act of identifying the disease or syndrome a person has or is believed to have. This is determined through use of skillful methods to establish the cause and nature of a person's illness and involves assessment, laboratory data and special medical tests, such as radiography, CAT and MRI scan, etc. A diagnosis is established by a primary healthcare provider.

Eastern (Asian) Medical – The act of identifying the disharmony and imbalance a person has, resulting in a disease or a syndrome a person has or is believed to have. This is determined through the application of Traditional Chinese Medical (TCM) principles for assessing, diagnosing and evaluating the body's energetic system and involves the use of skillful methods to establish the cause and nature of a person's illness in TCM terms, using methods of assessment and evaluation that include the Four Pillars of Examination: observation (including tongue diagnosis), listening, asking and touching (including pulse and hara diagnosis). Assessments are based primarily on TCM parameters relating to the balance and circulation of the Five Essential Substances of the body: Qi (energy of the channel system), Jing (vital essence), Shen (consciousness), Xue (blood) and Jin-ye (fluids). A diagnosis is established by an eastern medicine provider [4].

Discipline – An area of study with shared concepts, vocabulary, etc. such as Swedish massage, sports massage, myofascial release, etc.

Empathy –The ability to identify with the feelings and experience of another. This capacity has both a structural and chemical basis within the nervous system.

Energy – Energy is the capacity to carry out an action whether it is moving our limbs or thinking a thought. The various forms of energy are explored in physics and can be described in many different ways, but this essential *ability to do stuff* remains the same. We feel radiant energy when we sit in the sun; we use kinetic energy when we walk on the beach or go for a swim; we utilize neural energy when we think, when we talk, when we listen and when we read [98]. In eastern medical systems energy is associated with the movement and activity of what is called "life force," "prana" (India), "Qi" (China), "ki" (Japan). This underlying subtle energy creates, maintains and restores all things including the human body. Systems of manual therapy have derived from these Eastern medical systems that work with the subtle energy of the life force, such as Ayurveda (India), Tibetan Medicine and Traditional Chinese Medicine (TCM).

Friction – See Techniques - Friction.

Genitalia, Genitals - Reproductive organs and structures.

- Male genitals include the penis and scrotum/testis.
- Female genitals include the vulva (labia majora and minora, clitoris, vestibule), hymen and vagina.

Gliding/Stroking (effleurage) – See Techniques – Gliding/Stroking.

Holding – See Techniques - Holding.

Informed Consent – A client's authorization for professional services based on information the massage therapist provides.

Interoceptive Awareness – The conscious ability to be aware of proprioception, equilibrium/balance and visceral sensations in the body, such as the heart and respiratory rates [5, <u>17</u>, <u>21-27</u>, <u>78</u>, <u>79</u>, <u>86</u>].

Intersubjectivity – The non verbal sense of *being with* another person, a direct result of the interpersonal resonance that occurs during co-regulation of movements, sensations and emotions [$\underline{6}$, $\underline{42}$, $\underline{105}$].

Joint Play –

- Motions of sliding, rolling, spinning and/or compressing that occur between bony surfaces within a joint when the bones move through ranges of motion.
- The distensibility or "give" of the joint capsule and ligaments that allows motion to occur between bony partners within a joint [113].

Kneading (petrissage) – See Techniques – Kneading (petrissage).

Legend Drug – Any medication requiring prescription.

Licensing - In order to protect the public, licenses are granted by a governing agency to an individual to practice a profession. In massage, there are "title protection" laws that protect the title of Licensed Massage Therapist, wherein only licensed therapists may use this title. Other laws are "scope of practice" laws where it is unlawful to practice massage therapy unless licensed, no matter what it is called. See also <u>Certification</u> and <u>Registration [2, 12]</u>.

Lifting – See Techniques - Lifting.

Massage Therapy Equivalent or Related Terms – Massage, therapeutic massage, body massage, myotherapy, massotherapy, body rub, massage technology, bodywork, bodywork therapy, somatic therapy or any derivation of these terms. Massage therapy may be assumed to be bodywork, but not all bodywork is massage therapy. See <u>Bodywork</u>.

Massage Therapist Equivalent or Related Terms – Massage practitioner, massage technologist, massage technician, masseur, masseuse, myotherapist, massotherapist, bodyworker, bodywork therapist, somatic therapist or any derivation of these terms. Massage therapists may be assumed to be bodyworkers, but not all bodyworkers are massage therapists. Note: some regional regulations make distinctions between these terms to recognize differences in training and/or scope of practice.

Medical Massage – See Clinical Massage.

Mobilization – The process of making a fixed part movable or releasing stored substances, as in restoring motion to a joint, freeing an organ or making available substances held in reserve in the body, such as glycogen or fat.

Modality – A method of application or the employment of any <u>physical agents</u> and devices This term is commonly misused to describe forms of massage (such as NMT, myofascial, Swedish) [104]. See <u>physical agents</u>.

Movement and mobilization (stretching, traction, range of motion and gymnastics) – See Techniques – <u>Movement and mobilization</u>.

Neuromuscular Re-education – Therapeutic exercise techniques used to develop and restore balance, movement, coordination, kinesthetic sense, posture, proprioception, muscular tone and activity by way of activation of both nerves and muscles.

Palliative Care – Care and treatment intended to relieve or alleviate pain and discomfort without curing.

Patient – Client who is receiving healthcare. See <u>Client</u>.

Percussion – See Techniques - Percussion.

Physical Agent – Physical agents are tools or materials used in the application of therapeutic modalities and consist of energy and materials applied to the client/patient to assist in the achievement of his or her therapeutic goals. Physical agents are classified thermal (e.g., hot and cold packs), mechanical (e.g., manual traction, compression by pressurized water or compressive bandages, ultrasound) and electromagnetic (e.g., infrared heating, ultraviolet radiation, laser, TENS). Use of ultrasound, diathermy, ultraviolet radiation, laser and TENS are beyond a massage therapist's scope of practice unless the therapist possesses a separate training and certification that permits use of these agents [<u>16</u>].

Prescription – An oral or written direction or order for dispensing and administering a healthcare intervention that includes the following:

- Superscription recipe.
- Inscription ingredients and vehicle for delivery.
- Subscription directions to the dispenser.
- Signature directions to the patient with regard to the manner and dosage of application.

Professionalism - The adherence to a set of values and obligations, formally agreed codes of conduct and reasonable expectations of clients and colleagues. Key values include acting in the client's best interest and maintaining standards and knowledge expected of other members of the profession. This includes staying current with latest research. These standards include ethical elements such as integrity, decency, accountability, duty and honor. Healthcare professionals should present psychosocial and humanistic qualities such as caring, empathy, humility and compassion, social responsibility and sensitivity to individuals' cultures and beliefs [84, 85].

Psychophysiology – The study of the interrelationships between psychologic and physiologic events, which includes the effects of stress and trauma on the whole person [33, 42, 48, 64, 71, 80, 81, 115, 116].

Registration - Voluntary enrollment in a group, usually for purposes of tracking who is a member of that group. For massage therapists, a few states have registration instead of licensure. See <u>Licensing</u> and <u>Certification</u> [2, 12].

Resonance – Resonance involves the alignment of psychobiological states between a client/patient and a therapist. Each person responds to the other's body language, nonverbal signals, tone of voice, facial expression, eye gaze, bodily motion and touch. These nonverbal signals reveal unconscious shifts in the state of mind of the patient or therapist. Resonating with these expressions requires that the therapist feel his or her own feelings through interoceptive self-awareness and not merely understanding them conceptually [96]. See Intersubjectivity.

Scope of Practice – The skills, procedures, actions and processes that licensed healthcare providers with education and training are permitted to do within the context of their license. Scope of practice is defined by the profession and limited by laws allowing for specific education and experience and specific demonstrated competence.

Self Regulation –The neural process of organizing emotions via the autonomic nervous system. Fundamental to self regulation is the ability to decrease the physiological effects of a strong or prolonged emotional state through positive behavioral resources such as massage therapy and biofeedback. See <u>Social Neuroscience</u>, <u>Intersubjectivity</u>, <u>Resonance [89, 91]</u>.

Sexual Misconduct – Unethical and illegal behavior involving sexualization of or engagement in sexualized contact with a patient/client even after the professional relationship has ended (which is defined by code of ethics and law). This is especially concerning due to the power differential in which care providers may "use or exploit the trust, knowledge, emotions or influence derived from the professional relationship" in any way.[1] Sexualized activities may include inappropriate touch, inappropriate hugs, body language, verbal dialogue about sexual performance, preferences or fantasies, verbal or physical flirtatious behavior, seductive or sexually demeaning gestures, expressions, sexual joking, failure to ensure privacy in disrobing/dressing or though use of proper draping, filming the client without his or her permission, kissing or other activity that is sexual in nature. Sexual contact includes a wide range of behaviors besides intercourse though they commonly are intended to arouse sexual feelings and may include inappropriate touching of the client's breasts or genital area, therapist's breast or pelvic area touching a client, masturbation by practitioner or client and rape. The behavior does not have to be coercive to be inappropriate [85].

Social Neuroscience – The neural and cardiovascular dynamics of human relationships. See <u>Attunement</u>, <u>Attention</u> and <u>Self Regulation</u> [47, 74, 96-98].

Soft Tissues – Tissues that include skin, fascia, adipose, muscle, tendons, ligaments, joint capsules, cartilage, bursa, myofascial, blood, blood vessels, lymph, lymph vessels, interstitial fluids, synovial fluids, cerebrospinal fluids, nerves and periostial tissues [<u>30</u>].

Special Tests – Methods used to assess the presence and degree of a client's/patent's condition. These assessments commonly involve specific stressing of particular structures.

Spirit – That part of a person that senses a connection to a higher or deeper meaning in life. Also thought to be the source of wellbeing in some models of health. In Eastern theories, it is perceived as the underlying source of life vitality and wellbeing. Research indicates that individuals that participate in practices such as prayer, church attendance, meditation, mindfulness practice and/or connecting with nature had improved health outcomes [61, 69, 70, 107].

Standards of Care – Treatment guidelines developed by the profession for a given condition, which identify appropriate treatment based on scientific evidence and clinical experience. In legal terms, Standards of Care represents the degree of prudence and caution a professional having appropriate training and experience would practice. This relates to fiduciary responsibility, <u>Scope of Practice</u> and <u>informed consent</u>.

Standards of Practice – A document outlining practice standards that members of a profession or organization are expected to adopt. These standards usually include guiding principles related to professionalism, legal and ethical requirements, confidentiality, documentation and client/patient records, business practices, boundaries, hygiene and safety.

Supportive Environment – One in which the therapist provides support and <u>loving</u> <u>kindness</u> within clear and appropriate boundaries, free from judging, enabling, caretaking or counseling.

Technique – A procedure or skill used in massage therapy including, but not limited to, the following:

- **Compression** involves use of compressive force without slip, commonly applied at a 90-degree angle to the tissue, followed by a lift or release of force. Force varies in depth and pressure.
- Friction strokes involve rubbing one surface over another, with little to no surface glide, providing both compressive and shearing forces. Pressure may be superficial (light) to deep, providing friction effects between various tissue levels. Some examples of friction may include warming, rolling, wringing, linear, stripping, cross-fiber, chucking and circular. Most friction strokes are administered with use of little or no lubricant.
- **Gliding/Stroking** (effleurage) involve gliding movements that contour to the body. The pressure may be either superficial (light) or deep. Variations may include onehanded, two-handed, alternate hand, forearm and nerve stroke.
- Holding involves holding tissue without movement and with little to no force/weight

in the contact.

- **Kneading** (petrissage) strokes are lifting, rolling, squeezing and releasing of tissue, most commonly using rhythmic alternating pressures. Variations may include one-handed, two-handed, alternate hand, pulling and skin rolling.
- Lifting strokes are those that entail pulling tissue up and away from their current position.
- **Movement and mobilization** (stretching, traction, range of motion and gymnastics), strokes entail shortening and/or lengthening of soft tissues with movement at one or more joints. Variations include active movements (client/patient moving structures without practitioner help), passive movements (therapist moving the structures without client/patient help), resistive movement (client/patient moving structures against resistance provided by the therapist) and active assisted (client/patient moving structures with support and assistance from therapist).
- **Percussion** (tapotement) strokes involve alternating or simultaneous rhythmic striking movement of the hands against the body, allowing the hand to spring back after contact controlling the impact. Hand surfaces commonly used include ulnar surface of the hand, tips or flats of the fingers, open palm, cupped palm and back ulnar surface, knuckles, or sides of a loosely closed fist. Technique variations may include tapping, pincement, hacking, cupping, slapping, beating, pounding and clapping.
- **Vibration** strokes involve shaking, quivering, trembling, swinging, oscillation, or rocking movements most commonly applied with the fingers, the full hand, or an appliance. Variations may include fine or coarse vibration, rocking, jostling or shaking. Speed varies from slow to rapid.

Therapeutic Process – The capacity of the musculoskeletal system (and other systems) of the body to self-correct, come into balance and achieve equilibrium through the skillful normalization of tissue tone by a massage therapist. Therapeutic processes are time dependent and may be noticed within one massage. They are usually noticeable in other body systems after several massage sessions. A therapeutic process may or may not lead to healing.

Therapeutic Relationship –The ongoing relationship between a therapist and a client/patient established to support the client's/patient's therapeutic goals. A therapeutic relationship is one of service and being a helping resource for the client/patient. Characteristics of a healthy therapeutic relationship include personal awareness and insight, trust, respect, safety, authenticity, acceptance, empathy and collaborative agreement. Maintaining personal and professional boundaries and respecting the boundaries of others is the foundation of all therapeutic relationships. This includes communicating expectations and acknowledging the vulnerabilities of your clients [29, 82, 119].

Treatment Massage - See Clinical Massage.

Treatment Planning - The documented process of determining the treatment plan designed to address the client's/patient's therapeutic goals, based on current condition, health history, intake interview and the findings of assessment procedures. Assessment procedures may include postural and movement observations, palpation and objective evaluations such as range of motion and special tests. The therapist's clinical reasoning skills, scope of practice, training and experience, as well as the client's/patient's interests, concerns and informed consent influence the planning process. An Integrated treatment planning process may involve working with a healthcare team to ensure that all health care providers for a particular client/patient understand each other's treatment goals and that these goals are complementary.

Vibration - See Techniques - Vibration.

Wellness – Condition of optimal physical, emotional, intellectual, spiritual, social and vocational wellbeing. The concept of wellness is holistic at its core, encompassing the whole person [7]. Several models have been developed to depict the concepts of wellness.

Section 400

Acknowledgment

The task force has been given access to a large reference set of materials provided by major massage therapy publishers. This material has been invaluable in the development of the MTBOK.

The task force wishes to gratefully acknowledge the following publishers for making these materials available:

- Books of Discovery.
- Churchill Livingstone/Elsevier.
- Lippincott Williams & Wilkins.
- Milady, part of Cengage Learning.
- Mosby/Elsevier.

Section 500

Appendix

Section 510 Appendix A - Muscle List

Neck, Head and Face

- Splenius Capitis and Cervicis.
- Sternocleidomastoid.
- Scalenus Anterior, Medius and Posterior.
- Longus Capitus and Colli.
- Masseter.
- Temporalis.
- Lateral and Medial Pterygoids.
- OccipitoFrontalis.
- Sub Occipital Group.

Spine and Trunk

- Erector Spinae.
 - Iliocostalis.
 - Longissimus.
 - Spinalis.
 - Transversospinalis.
 - Semispinalis.
 - Rotatores.
 - Multifidus.
- Abdominals
 - Rectus Abdominis
 - External Obliques
 - Internal Obliques
 - Transverse Abdominals
- Illioposas
- Diaphragm
- Internal and External Intercostals

Shoulder

- Trapezius
- Levator Scapulae
- Rhomboids Major and Minor
- Serratus Anterior
- Pectoralis Major and Minor
- Deltoid
- Supraspinatus

Table of Contents

- Infraspinatus
- Teres Minor
- Subscapularis
- Teres Major
- Latissimus Dorsi
- Coracobrachialis

Elbow and Forearm

- Biceps Brachii
- Brachialis
- Brachioradialis
- Triceps Brachii
- Supinator
- Pronator Teres
- Pronator Quadratus
- Anconeus

Wrist Flexors

- Flexor Carpi Radialis
- Flexor Carpi Ulnaris
- Palmaris Longus
- Flexor Digitorum Superficialis (Sublimis) and Longus
- Flexor Digitorum Profundus

Wrist Extensors

- Extensor Carpi Radialis Longus and Brevis
- Extensor Carpi Ulnaris
- Extensor Digitorum

Thumb Movers

- Flexor Pollicis Longus and Brevis
- Extensor Pollicis Longus and Brevis
- Opponens Pollicis
- Abductor Pollicus Longus and Brevis

Hip

- Adductors
 - Pectineus
 - Adductor Brevis
 - Adductor Longus
 - Adductor Magnus
 - Gracilis

- Gluteus
 - Maximus
 - Medius
 - Minimus
- Quadratus Lumborum
- Sartorius
- Tensor Fascia Latae
- Piriformis
- Gemellus Superior and Inferior
- Obturator Internus and Externus
- Quadratus Femoris

Knee

- Quadriceps Femoris
 - Rectus Femoris
 - Vastus Lateralis
 - Vastus Medialis
 - Vastus Intermedius
- Hamstrings
 - Biceps Femoris
 - Semitendinosus
 - Semimembranosus
- Popliteus

Leg, Ankle and Foot

- Gastrocnemius
- Soleus
- Tibialis Anterior
- Tibialis Posterior
- Flexor Digitorum Longus
- Flexor Hallucis Longus
- Peroneus Longus and Brevis
- Extensor Digitorum Longus and Brevis
- Extensor Hallucis Longus
- Plantaris

Bibliography

- Substance Abuse and Mental Health Services Administration. Tip 44: Appendix B: Glossary; 2005 [cited]; Available from: http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=hssamhsatip&part=A82079.
- 2. American Massage Therapy Association. What are certification, licensing and accreditation?; 2002 [updated 2002; cited]; Available from: http://www.amtamassage.org.
- 3. Massage Therapy Body of Knowledge Meeting. Kansas City, Missouri; 2008.
- 4. American Organization for Bodywork Therapies of Asia. Forms of ABT. Voorhees, NJ; 2008 [updated 2008 2-12-2010; cited 4-25-2010]; Available from: http://www.aobta.org/about-forms.html.
- 5. Bechara A, Naqvi N. Listening to Your Heart: Interoceptive Awareness as a Gateway to Feeling. Nature Neuroscience. February 2004; 7(2):102-3.
- 6. Beebe B, Knoblauch S, Rustin J, Sorter D. Forms of Intersubjectivity in Infant Research and Adult Treatment. New York: Other Press; 2005.
- 7. Benjamin PJ. Professional Foundations for Massage Therapists. Upper Saddle, River, NJ: Pearson; 2009.
- 8. Bennell KL, Hinman RS, Metcalf BR, Buchbinder R, McConnell J, McColl G, Green S, Crossley KM. Efficacy of physiotherapy management of knee joint osteoarthritis: a randomised, double blind, placebo controlled trial. Annals of the Rheumatic Diseases. 2005 June; 64(6):906-12.
- 9. Bergman N, Linley L, Fawcus S. Randomized controlled trial of skin-to-skin contact from birth versus conventional incubator for physiological stabilization in 1200- to 2199-gram newborns. Acta Paediatrica. 2004;93:779-85.
- 10. Blatner A. The dynamics of catharsis. Journal of Group Psychotherapy, Psychodrama and Sociometry. 1985;37(4):157-66.
- 11. Bloom S. Creating Sanctuary: Toward an Evolution of Sane Societies. New York: Routledge; 1997.
- 12. Braun M, Simonson S. Introduction to Massage Therapy. Lippincott Williams; 2008.
- 13. Bucci C. Condition Specific Massage Therapy. Baltimore: Lippincott Williams & Wilkins; 2011.
- 14. Cady SH, Jones GE. Massage therapy as a workplace intervention for reduction of stress. Perceptual & Motor Skills. 1997 Feb;84(1):157-8.
- 15. Caldwell C. Getting our Bodies Back: Recovery, Healing and Transformation Through Body-Centered Psychotherapy. Boston, MA: Shambhala Press; 1996.
- 16. Cameron MH. Physical Agents in Rehabilitation: From Research to Practice. Philadelphia: Saunders: Elsevier; 2009.
- 17. Cameron O. Interoception: The inside story—A model for psychosomatic processes. Psychosomatic Medicine. 2001;63:697–710.
- 18. Carr L, Iacoboni M, Dubeau M-C, Mazziotta JC, Lenzi GL. Neural mechanisms of empathy in humans: a relay from neural systems for imitation to limbic areas. Journal [serial on the Internet]. 2003.
- 19. Conger J. The body in recovery: Somatic psychology and the self. Berkeley, CA: Frog, Ltd.; 1994.

- 20. Corbin L. Safety and efficacy of massage therapy for patients with cancer. Cancer Control. 2005 Jul;12(3):158-64.
- 21. Craig A. How do you feel? Interoception: The sense of the physiological condition of the body. Nature Reviews: Neuroscience. 2002;3(655-666).
- 22. Craig A. Interoception: The sense of the physiological condition of the body. Current Opinion in Neurobiology. 2003;13:500-5.
- 23. Craig A. Human feelings: Why are some more aware than others? TRENDS in Cognitive Sciences. 2004 June 2004;8(6):239-41.
- 24. Craig A. How do you feel now? The anterior insula and human awareness. Nature Reviews: Neuroscience. 2009;10(1):59-70.
- 25. Critchley H. The human cortex responds to an interoceptive challenge. Proceedings of the National Academy of Sciences. 2004;101(17):6333-34.
- 26. Critchley H. Neural mechanisms of autonomic, affective and cognitive integration. Journal of Comparative Neurology. 2005;493:154-66.
- 27. Critchley H, Wiens S, Rotshtein P, Ohman A, Dolan R. Neural systems supporting interoceptive awareness. Nature Neuroscience. 2004 February 2004;7(2):189-95.
- 28. Dalai Lama, Howard C. The art of happiness in a troubled world. New York: Doubleday; 2009.
- 29. Dass R, Gorman P. How can I help. New York: Alfred A.Knopf; 1985.
- 30. De Domenico G, Wood E. Beard's massage. 4 ed. Philadelphia: WB Saunders Company; 1997.
- 31. Decety J, Jackson P. The functional architecture of human empathy. Behavioral and Cognitive Neuroscience Reviews. 2004;3(2):71-100.
- 32. Decety J, Lamm C. Human empathy through the lens of social neuroscience. Scientific World Journal. 2006;6:1146-63.
- 33. Diego M, Field T. Moderate pressure massage elicits a parasympathetic nervous system response. International Journal of Neuroscience. 2009 May 2009;119(5):630-8.
- 34. Diego MA, Field T, Hernandez-Reif M, Hart S, Brucker B, Field T, Burman I. Spinal cord patients benefit from massage therapy. International Journal of Neuroscience. 2002 Feb;112(2):133-42.
- 35. Eisenberg N. The development of empathy-related responding. In: Gustavo C, Edwards C, editors. Nebraska Symposium on Motivation, Volume 51: Moral Motivation Through The Life Span. Lincoln, NE: University of Nebraska Press; 2005.
- 36. Fehr B, Sprecher S, Underwood L, editors. The science of compassionate love: theory, research and applications. London: Wiley-Blackwell; 2008.
- 37. Fehr E, Fischbacher U. The nature of human altruism. Nature. 2003;425(6960):785-91.
- 38. Fehr E, Rockenbach B. Human altruism: Economic, neural and evolutionary perspectives. Current Opinion in Neurobiology. 2004;14(6):784-90.
- 39. Field T. Massage therapy for infants and children. Journal of Developmental & Behavioral Pediatrics. 1995 Apr;16(2):105-11.
- 40. Field T. Early interventions for infants of depressed mothers. Pediatrics. 1998 Nov;102(5 Suppl E): 1305-10.

- 41. Field T, Diego MA, Hernandez-Reif M, Schanberg S, Kuhn C. Massage therapy effects on depressed pregnant women. Journal of Psychosomatic Obstetrics and Gynaecology. 2004 Jun;25(2):115-22.
- 42. Fogel A. The psychophysiology of self-awareness: Rediscovering the lost art of body sense. New York: W.W. Norton & Company, Inc.; 2009.
- 43. Fosha D, Siegel D, Solomon M. The mindful brain: Reflection and attunement in the cultivation of well-being. New York: W.W. Norton; 2008.
- 44. Fosha D, Siegel D, Solomon M, editors. The healing power of emotion: Affective neuroscience, development & clinical practice. New York: W.W. Norton & Company, Inc.; 2009.
- 45. Fritz S. Mosby's fundamentals of therapeutic massage. 4th ed. St. Louis: Mosby Elsevier; 2009.
- 46. Gerhardt S. Why love matters: How affection shapes a baby's brain. New York: Brunner-Routledge; 2004.
- 47. Goleman D. Social intelligence: The new science of human relationships. New York: Bantam Books; 2006.
- 48. Goodwin J, Attias R, editors. Splintered reflections: Images of the body in trauma. New York: Basic Books; 1999.
- 49. Hartel U, Volger E. [Use and acceptance of classical natural and alternative medicine in Germany--findings of a representative population-based survey]. Forschende Komplementarmedizin und klassische Naturheilkunde = Research in Complementary and Natural Classical Medicine. 2004 Dec;11(6):327-34.
- 50. Herman JL. Trauma and recovery: The aftermath of violence from domestic abuse to political terror. New York: Basic Books; 1992.
- 51. Hernandez Reif M, Field T, Krasnegor J, Theakston H, Hossain Z, Burman I. High blood pressure and associated symptoms were reduced by massage therapy. Journal of Bodywork and Movement Therapies. 2000, 4:31-8.
- 52. Hertenstein MR, Holmes M, McCullough M, Keltner D. The communication of emotion via touch. Emotion. 2009;9(4):566-73.
- 53. Immordino-Yang M, McColla A, Damasio H, Damasio A. Neural correlates of admiration and compassion. PNAS. 2009 May 12, 2009;106(19):8021–6.
- 54. Ingber D. The architecture of life. Scientific American. 1998 January 1998;278(1):48-57.
- 55. Ingber D. Mechanical control of tissue morphogenesis during embryological development. International Journal of Developmental Biology. 2006;50:255-66.
- 56. Jackson SW. Catharsis and abreaction in the history of psychological healing. Psychiatric Clinics of North America. 1994;17 (3):471-91.
- 57. Johansen-Berg H, Christensen V, Woolrich M, Matthews P. Attention to touch modulates activity in both primary and secondary somatosensory areas. Cognitive Neuroscience. 2000 27 April 2000;11(6):1237–41.
- 58. Johnson DH, editor. Bone, breath & gesture: Practices of embodiment. Berkeley, CA: North Atlantic Books; 1995.
- 59. Johnson DH and Grand, I., editors. The body in psychotherapy: Inquiries in somatic psychology. Berkeley, CA: North Atlantic Books; 1998.
- 60. Kitzinger S. Authoritative touch in childbirth. In: Davis-Floyd R, Sargent C, editors. Childbirth and Authoritative Knowledge: Cross-Cultural Perspectives. Berkeley, CA: University of California Press; 1997. p. 209-32.

Table of Contents

- 61. Krippner S, Welch P. Spiritual dimensions of healing: From native shamanism to contemporary health care. New York: Irvington Publishers; 1992.
- 62. LeDoux J. Synaptic self: How our brains become who we are. New York: Penguin; 2002.
- 63. Lengacher CA, Bennett MP, Kipp KE, Berarducci A, Cox CE. Design and testing of the use of a complementary and alternative therapies survey in women with breast cancer. Oncololy Nursing Forum. 2003 Sep-Oct;30(5):811-21.
- 64. Levine EG, Silver B. A pilot study: evaluation of a psychosocial program for women with gynecological cancers. Journal of Psychosocial Oncology. 2007;25(3):75-98.
- 65. Levine P. The body as healer: A revisioning of trauma and anxiety. In: Sheets-Johnson M, editor. Giving the Body Its Due. Albany, NY: SUNY Press; 1992.
- 66. Levine P. Waking the tiger: Healing trauma. Berkeley, CA: North Atlantic Books; 1997.
- 67. Lowe WW. Orthopedic massage. 2nd ed. St. Louis: Mosby Elsevier; 2009.
- 68. Lowen A. The language of the body. New York: Macmillan; 1958.
- 69. Martin JE, Carlson CR. Behavior therapy and religion: integrating spiritual and behavioral approaches to change. In: Miller MWR, Martin JE, editors. Spiritual Dimensions of Health Psychology. Newbury Park, CA: Sage Publications; 1988.
- Martin JE, Carson CR. Spiritual dimensions of health psychology. In: Miller WR, Martin JE, editors. Behavior Therapy and Religion: Integrating Spiritual and Behavioral Approaches to Change. Newbury Park, CA: Sage Publications; 1988. p. 57-110.
- 71. Ogden P, Minton K, Pain C. Trauma and the body: A sensorimotor approach to psychotherapy. New York: W.W. Norton; 2006.
- 72. Olausson H, Lamarre Y, Backlund H, Morin C, Wallin BG, Starck G, Ekholm S, Strigo I, Worsley K, Vallbo AB, Bushnell MC. Unmyelinated tactile afferents signal touch and project to insular cortex. Nature Neuroscience. 2002 Sep;5(9):900-4.
- 73. Osborne-Sheets C. Pre- and perinatal massage therapy: Nurturing the births of mothers and their babies. San Diego, CA: Body Therapy Associates; 1998.
- 74. Panksepp J. Affective neuroscience. New York: Oxford University Press; 2004.
- 75. Peterson C, Seligman M. Character strengths and virtues: A handbook and classification. New York: Oxford University Press; 2004.
- 76. Peyron R, Laurent B, García-Larrea L. Functional imaging of brain responses to pain: A review and meta-analysis. Neurophysiologie Clinique. 2000;30(5):263-88.
- 77. Pischinger A. Matrix and matrix regulation: Basis for a holistic theory in medicine. Brussels: Haug; 1991.
- 78. Pollatos O, Gramann K, Schandry R. Neural systems connecting interoceptive awareness and feelings. Human Brain Mapping. 2007;28(1):9-18.
- 79. Pollatos O, Kirsch W, Schandry R. Brain structures involved in interoceptive awareness and cardioafferent signal processing: A dipole source localization study. Human Brain Mapping. 2005;26:54–64.
- 80. Porges S. The polyvagal theory: Phylogenetic contributions to social behavior. Physiology and Behavior. 2003;79:503-13.
- 81. Porges S. Reciprocal influences between body and brain in the perception and expression of affect: A polyvagal perspective. In: Fosha D, Siegel D, Solomon M,

editors. The Healing Power of Emotion: Affective Neuroscience, Development & Clinical Practice. New York: W.W. Norton & Company, Inc.; 2009.

- 82. Rogers C. On becoming a person. New York: Houghton Mifflin Company; 1961.
- Rosenbaum E, Gautier H, Fobair P, Neri E, Festa B, Hawn M andrews A, Hirshberger N, Selim S, Spiegel D. Cancer supportive care, improving the quality of life for cancer patients. A program evaluation report. Support Care Cancer. 2004 May;12(5):293-301.
- 84. Salvo SG. Mosby's pathology for massage therapists. 2 nd ed. St. Louis: Elsevier, Mosby; 2009.
- 85. Salvo SG. Massage therapy: principles & practice. 4th ed. St. Louis: Elsevier, Saunders; 2011.
- 86. Sapir C. The central autonomic nervous system: Conscious visceral perception and autonomic pattern generation. Annual Review of Neuroscience. 2002;25:433-69.
- 87. Scaer RC. The trauma spectrum: Hidden wounds and human resiliency. W.W. Norton & Company, Inc.; 2005.
- 88. Schafer R. Requirements for a critique of the theory of catharsis. Journal of Consulting and Clinical Psychology. 1970;35(1):13-7.
- 89. Schore A. Affect regulation and the origin of the self: The neurobiology of emotional development. Mahwah, NJ: Erlbaum; 1994.
- 90. Schore A. The experience-dependent maturation of a regulatory system in the orbital prefrontal cortex and the origin of developmental psychopathology. Development and Psychopathology. 1996;8:59-87.
- 91. Schore A. The effects of early relational trauma on right brain development, affect regulation and infant mental health. Infant Mental Health Journal. 2001b;22(1-2):201-69.
- 92. Schore A. Affect regulation and the repair of the self. New York: W.W. Norton; 2003.
- 93. Schore A. Attachment, affect, regulation and the developing right brain: Linking developmental neuroscience to pediatrics. Pediatrics in Review. 2005;26(6):204-18.
- 94. Schulte-Ruther M, Markowisch H, Fink G, Piefke M. Mirror neuron and theory of mind mechanisms involved in face-to-face interactions: A functional magnetic resonance imaging approach to empathy. Journal of Cognitive Neuroscience. 2007;19(8):1354-72.
- 95. Shibasaki H. Central mechanisms of pain perception. Supplement of Clinical Neurophysiology. 2004;57:39-49.
- 96. Siegel D. The developing mind: Toward a neurobiology of interpersonal experience. New York: Guilford Press; 1999.
- 97. Siegel D. The mindful brain: Reflection and attunement in the cultivation of wellbeing. New York: W.W. Norton; 2007.
- 98. Siegel D. Mindsight: The new science of personal transformation. New York: Bantam Books; 2010.
- 99. Singer T, Lamm C. The social neuroscience of empathy. Annals of the New York Academy of Sciences. 2009;1156:81-96.

- 100. Singer T, Seymour B, O'Doherty J, Kaube H, Dolan R, Frith C. Empathy for pain involves the affective but not sensory components of pain. Science. 2004 February 20, 2004;303(5661):1157-62.
- 101. Smith J. Reexamining psychotherapeutic action through the lens of trauma. Journal of the American Academy of Psychoanalysis and Dynamic Psychiatry. 2004;32(4):613-31.
- 102. Solomon M, Siegel D, editors. Healing trauma: Attachment, mind, body and brain. New York: W. W. Norton & Company; 2003.
- 103. Stager L. Nurturing massage for pregnancy. New York: Lippincott Williams & Wilkins; 2010.
- 104. Starkey C. Therapeutic modalities. 2nd ed. Editor.: FA Davis; 1999.
- 105. Stern D. The present moment: In psychotherapy and everyday life. New York: W. W. Norton & Company; 2004.
- 106. Stern D. The clinical relevance of infancy: A progress report. Infant Mental Health Journal. 2008;29(3):177-88.
- 107. Stewart EM, Deckro JP, Mandle CL. Spirit in health and healing: a clinical program. Holistic Nursing Practice. 1989;3(3):35-46.
- 108. Stillerman E. Prenatal massage. St. Louis, MO: Mosby Elsevier; 2008.
- 109. Strong CB. The effect of massage on premature infants. Tucson, AZ: University of Arizona; 1989.
- 110. Taylor A, Goehler L, Galper D, Innes K, Bourguignon C. Top-down and bottomup mechanisms in mind-body medicine: Development of an integrative framework for psychophysiological research. Explore. 2010 January/February 2010;6(1):29-41.
- 111. Thomas CLE. Taber's cyclopedic medical dictionary. Brookings, OR: F.A. Davis Company; 1997.
- 112. Thompson D. Hands heal. 3rd ed. Baltimore: Lippincott Williams & Wilkins; 2005.
- 113. Totton N, editor. New dimensions in body psychotherapy. Berkshire, England: Open University Press; 2005.
- 114. van der Hart O, Brown P. Abreaction re-evaluated. Dissociation. 1992;5(3):127-40.
- 115. van der Kolk B. The body keeps score: Approaches to the psychobiology of posttraumatic stress disorder. In: van der Kolk B, A. M, Weisaeth L, editors. Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body and Society. New York: The Guilford Press; 1996. p. 214-41.
- 116. van der Kolk B, McFarlane AX, Weiswaeth L, editors. Traumatic stress: The effects of overwhelming experience on mind, body and society. New York: Guilford Press; 1996.
- 117. von Knorring A, Söderberg A, Austin L, Uvnäs-Moberg K. Massage decreases aggression in preschool children: A long-term study. Acta Pædiatrica. 2008;97:1265–9.
- 118. Wantanabe T, Sasaki Y, Miyauchi S, Putz B, Fujimaki N, Nielsen M, Takino R, Miyakawa S. Attention-regulated activity in human primary visual cortex. Journal of Neurophysiology. 1998;79:2218-21.
- 119. Wegela KK. How to be a help instead of a nuisance: Practical approaches to giving support, service & encouragement to others. Boston: Shambhala; 1997.

- 120. Willard FH, Patterson MM, editors. Nociception and the neuroendocrine-immune connection. 1992 International Symposium; 1992. American Academy of Osteopathy.
- 121. Yuasa Y. The body: Toward an eastern mind-body theory. New York: State University of New York Press; 1987.