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COLLEGE OF MASSAGE THERAPISTS OF BRITISH COLUMBIA

Further Commentary on the Risk of Harm Associated with the Practice of Massage Therapy

A SUPPLEMENTARY RESPONSE

to the Health Professions Council's February 1999

Preliminary Report on the Massage Therapists Scope of Practice

July 6, 2000

Introduction

Although the purposes for which massage is performed cover a very broad spectrum, it is widely believed that, regardless of the primary purpose of the massage treatment, therapeutic benefits will be produced. As a result of this belief in the general therapeutic efficacy of massage, it is the common practice in North America to refer to all professional massage treatments as “massage therapy”.

When discussing massage therapy, the College of Massage Therapists ("CMT") believes it is critical to distinguish between those forms of therapeutic massage where the primary intent of the treatment is the production of specific therapeutic effects, and massage treatment in which the primary intent is the production of therapeutic benefits of a more general nature by means of a less pathology-focused approach. The therapeutic intent with which massage is performed has significant implications for the potential risk of harm associated with the massage treatment.

Therapeutic Intent

Treatment with a *general therapeutic intent* is performed with the primary purpose of producing general effects such as muscle relaxation; increased circulation; reduction of heart rate and arterial pressure; symptomatic relief of excessive muscle tone and other non-specific musculoskeletal aches and pains; improved flexibility and range of motion; psychological stress and anxiety reduction; emotional calming; increased physical and psychological comfort; pleasurable sensation and enhanced sense of health and well-being. These effects are general in the sense that, although some of them may be focused on specific body regions or systems, they are not directed towards altering pathological processes in direct and specific ways. Numerous therapeutic benefits have been demonstrated to result from this form of treatment¹⁻²³, and although the practitioner is aware of and may intend to elicit these benefits, they result secondarily from the primary purposes of treatment as described above.

Where the massage treatment is performed with a *specific therapeutic intent*, the selection and application of manual techniques involves a deliberate attempt to produce an impact of a structural or physiological nature such that it will alter the signs, symptoms, or pathological processes of a disease or disorder. The treatment is planned based upon an evaluation of the pathological processes known or believed to be present, and techniques are selected for the sake of the specific effects they are known or believed to produce. These techniques may include some that involve sufficient biomechanical force to alter tissue structure and which are intended to produce controlled tissue disruption.

Risk of Harm

Massage therapy is unusual as compared to most therapies in that its effectiveness is greatly out of proportion to its potential risk for causing harm. It is highly unusual for a normal, healthy individual to be injured through massage treatment, although such injury has been reported²⁴. However, massage performed with *specific therapeutic intent* often involves working on soft tissues to a greater depth and with the application of more force as compared to massage performed with *general therapeutic intent*. Treatment also tends to be focused on isolated structures such as tendons, musculotendinous or tenoperiosteal junctions, ligaments, or joint capsules. The pressures and tensions applied during this type of massage therapy create the possibility for tissue damage, in the form of microtears, and bruising and inflammation, particularly where musculoskeletal injury, disease, or other medical

condition increases the vulnerability of tissues. Similarly, the increased circulation induced by massage techniques may be harmful rather than beneficial where certain abnormalities are present²⁵. Consequently, working with a specific therapeutic intent creates the possibility of producing damage, and implicit within the therapeutic intent is the assumption that the tissues being treated are not normal and healthy.

This risk of harm is conditional in the sense of being associated with the treatment of people with pre-existing pathology or other conditions predisposing to injury, and/or with the use of techniques of a type and with an intent that is specifically therapeutic. The risk of harm from massage increases in direct proportion to the type and severity of conditions for which clients/patients seek specifically therapeutic treatment, and the degree to which practitioners see the primary purpose of treatment as the production of direct therapeutic effects on the presenting condition.

In general, we may consider the factors creating a risk of harm associated with massage therapy as falling into the following three categories:

1. Failure to recognize the presence of a condition for which the effects of massage may be harmful.
2. Failure to avoid or modify treatment appropriately to prevent injury where an abnormal or pathological condition is known to exist.
3. Inappropriate application of therapeutic massage techniques that are potentially harmful in and of themselves.

With regard to the first of the above categories, *Failure to recognize the presence of a condition for which the effects of massage may be harmful*, the inherent difficulties in protecting the public from this type of risk without unduly restricting both amateur and professional massage for purposes of relaxation, recreation, and general therapeutic benefits are so great that they preclude attempting to do so. The value and benefits of massage are sufficiently great and the magnitude of this risk is sufficiently small that we may reasonably disregard this as a relevant factor in a discussion of scope of practice and reserved acts for massage therapists. On the other hand, all health professionals licensed to perform treatment with a specific therapeutic intent should be required to receive adequate training in the recognition of conditions where massage treatment is contraindicated.

The second category, *Failure to avoid or modify treatment appropriately to prevent injury where a condition is known to exist*, is not a type of risk that affects normal, healthy persons. Common sense and reasonable caution serve to protect the public from this risk of harm in both amateur massage and in treatment by professionals whose primary intent is to provide relaxation, recreation, and general therapeutic benefits of massage. These individuals will usually be aware of the limitations of their training and skills and will normally be motivated to avoid any treatment that appears to hold any risk. On the other hand, the risk of harm in situations where pathology is present becomes significant when the practitioner holds the belief that s/he is capable of producing specific therapeutic effects in a beneficial way, directs treatment toward the production of such effects, and utilizes specialized techniques for this purpose. At least two examples of such occurrences have been published in the recent medical literature, one involving renal-artery embolization in a patient with aortic occlusion²⁵, and the other involving displacement of a ureteral stent²⁶. The only way to protect the public from risk of this sort is

through restricting the performance of massage treatment with specific therapeutic intent to those practitioners who have been adequately trained and are licensed to do so.

The third category of risk, *Inappropriate application of specific therapeutic massage techniques that are potentially harmful in and of themselves*, arises when massage practitioners employ techniques that are designed and intended to alter tissue structure. Some examples of these techniques include joint mobilization, deep tissue massage, and deep friction massage, which are of considerable value in the treatment of musculoskeletal injuries and other conditions in which inflammation, fibrosis, adhesions, and loss of normal tissue extensibility contribute to pain and reduced range of motion²⁷⁻⁴². Joint mobilization, for example, involves movement of a joint beyond the range that can be performed voluntarily by the client/patient and is achieved through the application of an external force, either to overcome mechanical resistance or to produce motion in a direction that cannot be produced through voluntary muscle activity. This action creates a risk of damage to joint structures if the force, direction, amplitude, or velocity of movement exceeds the mechanical tolerances of the tissue. Amateur masseurs and masseuses and professional practitioners performing massage for relaxation, recreation, and general therapeutic benefits are highly unlikely to use these techniques, and therefore do not pose a risk to the public from that source. The risk of harm becomes significant when the practitioner's primary intent is to produce a therapeutic benefit and s/he is therefore strongly motivated to seek out and use these techniques in the treatment of clients/patients. It should be noted that normal, healthy individuals as well those with pre-existing pathologies are at risk of harm from these techniques. A case in which an otherwise healthy woman developed bleeding in the liver following deep tissue massage that caused a rupture of a blood vessel has been recently reported²⁴. The most effective way to protect the public from this risk of harm is through restricting the performance of massage treatment with specific therapeutic intent to those practitioners who have been adequately trained in the use of manual techniques whose purpose is primarily therapeutic in nature.

Frequency of Reports of Injury from Massage Therapy

Reports in the medical literature of injury resulting from massage have been rare in the past. This can be readily understood in terms of the practice and training norms that prevail throughout most of North America. With the exception of those in British Columbia and Ontario, massage therapy schools do not usually attempt to provide training in diagnostic assessment and the full range of modern manual therapy techniques. Training in Swedish massage is typically combined with one or two other techniques, which may be "Western" or may be from completely different treatment paradigms, such as shiatsu or reflexology. Relaxation massage and general rather than specific therapeutic effects are emphasized. Also, although there has been a great increase in public interest in massage therapy and other forms of complementary health care in recent years, information presented at a recent meeting of the National Certification Board for Therapeutic Massage and Bodywork (May 19-20, 1999) indicated that a majority of US practitioners do not provide treatment in a medical context and receive few if any medical referrals. It was estimated that fewer than 25 % of all practitioners in the US currently do any medically oriented massage that involves treating clinically diagnosed conditions. The three most often cited reasons for receiving massage therapy by US consumers are relaxation (27%), relief of muscle soreness, stiffness or spasm (13%), and stress reduction (10%). Outside of BC, both physicians and the public have tended to approach massage therapy treatment with caution, and primarily for relaxation and other general therapeutic benefits. Patients with musculoskeletal injuries and disorders typically receive treatment from MDs or other health care professionals rather than massage therapists. This is not a pattern of massage therapy practice associated with a significant risk of harm.

But several reports of injury resulting from massage have recently appeared in the medical literature, and we may expect this to occur with increasing frequency for three reasons:

the standards of training for massage therapy remain very low. The majority of regulatory jurisdictions within the United States require 500 hours or less of training, and these are based almost solely on hours of instruction and practice and with no real definition of content;

the increased public interest in traditional and alternative therapies increases the likelihood of minimally trained massage practitioners treating clients who are seeking therapy for pre-existing medical conditions; and

an increased tendency on the part of minimally trained massage practitioners to view their role as providers of specific rather than general therapeutic benefits results in an increased willingness to treat clients for medical conditions, and to use potentially harmful methods and techniques without adequate training to support this practice.

As the number of patients seeking alternative medical therapies increases, there is an inevitable tendency for massage practitioners who are focused on the therapeutic results of massage to make a shift from treatments of general therapeutic intent to specific therapeutic intent as defined at the beginning of this report. When such a shift occurs, massage begins to entail an inherent risk of harm that does not otherwise exist. The practitioner is more likely to be performing massage on an individual in whom a pathological condition is known to exist (an individual is unlikely to subject a sensitive or painful body part to massage treatment without the belief in a resulting benefit). The practitioner will choose to use specific manual therapy techniques for sake of their purported therapeutic effects, even though these techniques may not be pleasant and may involve forces or directions of movement that are potentially harmful. Because treatment is performed for specific therapeutic purposes rather than immediate relaxation, decreased pain and increased pleasurable sensation, the practitioner will tend to disregard and also advise the client/patient to disregard warning signs of injury such as discomfort, pain and bruising which would otherwise moderate the duration and intensity of application. Thus we may expect to see more reports of massage therapy related injury in the future.

Regulatory Implications of Risk of Harm from Massage Therapy

Registered massage therapists are the primary source of various forms of manual therapy in British Columbia. Massage therapy is unique in this province in that it has been a regulated health profession for over 50 years, it has been recognized by government and the public as an integral component of the provincial health care system, and treatment has been covered under the Medical Services Plan for more than 30 years. Throughout this period the practice of massage therapy has been predominantly focused on treatment on medical referral of patients with injuries, diseases, and disorders who have sought treatment within the conventional health care system. 70 % of British Columbia massage therapy patients are treated on medical referral for musculoskeletal injuries or other pathologies, a variety of conditions secondary to other diseases or disorders, or for conditions that are secondary to treatment of other diseases or disorder. There are clear differences in the safety considerations and the risk of injury associated with the treatment of a client population of which at least 70% of whom are known to have injuries, diseases, and disorders that are potential contraindications to certain forms of treatment, as in British Columbia, and a patient population of which 25% at most are likely to have such conditions, as in the US and elsewhere. The standards of training required for license to practice massage

therapy in BC have recognized the risk of harm inherent in providing treatment with specific therapeutic intent to individuals with injuries, diseases and disorders, and have served effectively to protect the public from such risk.

Practitioners who are not thoroughly trained in anatomy, physiology, pathology, history taking and physical assessment techniques are unlikely to have the knowledge and skill necessary to choose and effectively apply an appropriate method of treatment without risk of harm. Massage can be harmful to people with certain medical conditions and musculoskeletal injuries, and therefore, the therapeutic application of massage techniques should be reserved to practitioners who are trained to identify contraindications, to adapt treatment to the presenting conditions, and to utilize powerful manual therapy techniques both safely and effectively. We do not believe that it is in the public interest to allow inadequately trained individuals to perform soft tissue manipulations with sufficient force to produce tissue damage, and most especially with specific therapeutic intent on clients known to have pre-existing medical conditions.

Recommendation

Based on the analysis set out in this Supplementary Response, the CMT recommends that the Health Professions Council grant to the profession of massage therapy the following reserved acts:

1. Making a soft tissue diagnosis by identifying a disorder or condition of the soft tissue as the cause of signs or symptoms of an individual.
2. Using massage techniques for the treatment of an acute or chronic injury, structural abnormality or disease of the musculoskeletal system, or for the treatment of a circulatory or lymphatic condition that compromises either system.
3. Manipulation of soft tissues with sufficient biomechanical pressure to cause tissue damage, including microtearing, bruising or inflammation.

In its November 1999 Supplementary Response, the CMT also recommended that massage therapists be granted the reserved act of "putting a finger beyond the labia majora or the anal verge" for the purposes of accessing the muscles of the pelvic floor. The College would be pleased to provide the Council with any further information that may be required to support this final reserved act for massage therapists.

References

1. Cady SH, Jones GE. 1997. Massage therapy as a workplace intervention for reduction of stress. *Percept Mot Skills* 84:157-158.
2. Fakouri C, Jones P. 1987. Relaxation Rx: slow stroke back rub. *J Gerontol Nurs* 13:32-35.
3. Ferrell-Torry AT, Glick OJ. 1993. The use of therapeutic massage as a nursing intervention to modify anxiety and the perception of cancer pain. *Cancer Nursing* 16:93-101.
4. Field T, Morrow C, Valdeon C, Larson S, Kuhn C, Schanberg S. 1992. Massage reduces anxiety in child and adolescent psychiatric patients. *J Am Acad Child Adolesc Psychiatry* 31(1): 125-128.

5. Field T, Ironson G, Scafidi F, Nawrocki T, Goncalves A, Pickens J, Fox N, Schanberg S, Kuhn C. 1996a. Massage therapy reduces anxiety and enhances EEG pattern of alertness and math computations. *Int J Neurosc* 86:197-205.
6. Field T, Seligman S, Scafidi F, Schanberg S. 1996b. Alleviating post-traumatic stress in children following hurricane Andrew. *Journal of Applied Developmental Psychology* 17(1): 37-50.
7. Field T, Grizzle N, Scafidi F, Schanberg S. 1996c. Massage and relaxation therapies' effects on depressed adolescent mothers. *Adolescence* 31:903-911.
8. Field T, Hernandez-Reif M, Seligman S, Krasnegor J, Sunshine W, Rivas-Chacon R, Schanberg S. 1997a. Juvenile Rheumatoid arthritis: benefits from massage therapy. *J Pediatr Psychol* 22:607-617.
9. Field T, Schanberg S, Kuhn C, Fierro K, Henteleff T, Mueller C, Yando R, Burman I. 1997b. Bulimic adolescents benefit from masssage therapy. *Adolescence* **In Press**.
10. Field T, Hernandez-Reif M, Taylor S, Quintano O, Burman I. 1997c. Labor pain is reduced by massage therapy. *J Psychosom Obstet Gynaecol* 18:286-291.
11. Field T, Peck M, Krugman S, Tuchel T, Schanberg S, Kuhn C, Burman I. 1998a. Burn injuries benefit from massage therapy. *J Burn Care Rehab* 19:241-244.
12. Field T, Henteleff T, Hernandez-Reif M, Martinez E, Mavunda K, Kuhn C, Schanberg S. 1998b. Children with asthma have improved pulmonary functions after massage therapy. *J Pediatr* 132:854-858.
13. Field TM, Quintano O, Hernandez-Reif M, Koslovsky G. 1998c. Adolescents with attention deficit disorder benefit from massage therapy. *Adolescence* 33:103-108.
14. Ironson G, Field T, Scafidi F, Hashimoto M, Kumar M, Kumar A, Price A, Gonclaves A, Burman I, Tetenman C, Patarca R, Fletcher MA. 1996. Massage therapy is associated with enhancement of the immune system's cytotoxic capacity. *Int J Neurosci* 84:205-217.
15. Longworth JCD. 1982. Psychophysiological effects of slow stroke back massage in normotensive females. *Advances in Nursing Science* 4:44-61.
16. Meares A. 1980. Massage as an adjunct to meditation in the psychological treatment of cancer. *Aust J Physiother* 26:25-26.
17. Nixon M, Teschendorff J, Finney J, Karnilowicz W. 1997. Expanding the nursing repertoire: the effect of massage on post-operative pain. *Aust J Adv Nurs* 14:21-26.
18. Nordschow M, Bierman W. 1962. Influence of manual massage on muscle relaxation *Phys Ther* 42:653-657.
19. Richards KC. 1998. The effect of a back massage and relaxation intervention on sleep in critically ill patients. *Am J Crit Care* 7:288-299.
20. Shulman KR, Jones GE. 1996. The effectiveness of massage therapy intervention on reducing anxiety in the workplace. *Journal of Applied Behavioural Science* 32: 160-173.
21. Simpson J. 1991. Massage. Positive strokes in palliative care. *New Zealand Nursing Journal*. July:15-17.
22. Sims S. 1986. Slow stroke back massage for cancer patients. *Nurs Times* 82:47-50.
23. Sunshine W, Field T, Quintino O, Fierro K, Kuhn C, Burman I, Schanberg S. 1996. Fibromyalgia benefits from massage therapy and transcutaneous electrical stimulation. *Journal of Clinical Rheumatology* 2(1): 18-22.
24. Trotter JF. 1999. Hepatic Hematoma after Deep Tissue Massage. *New England Journal of Medicine* 341(26): 2019-2020.

25. Mikhail A, Reidy JF, Taylor PR, Scoble JE. 1997. Renal artery embolization after back massage in a patient with aortic occlusion. *Nephrol Dial Transplant* 12:797-798.
26. Kerr HD. 1997. Ureteral stent displacement associated with deep massage. *WMJ* 96:57-58.
27. Askew LJ, Beckett VL, Kai Nan An, Chao EYS. 1983. Objective evaluation of hand function in scleroderma patients to assess effectiveness of physical therapy. *Br J Rheumatol* 22:224-232.
- Chamberlain GJ. 1982. Cyriax's friction massage: a review. *Journal of Orthopedic and Sports Physical Therapy* 4:16-22.
28. Chamberlain GJ. 1982. Cyriax's friction massage: a review. *Journal of Orthopedic and Sports Physical Therapy* 4:16-22.
29. Corbett M. 1972. The use and abuse of massage and exercise. *Practitioner* 208:136-139.
30. Cyriax JH. 1960. Clinical applications of massage. in: Licht S (ed). *Massage, Manipulation and Traction*. Huntington, NY: Robert E Krieger Publishing Co, 1976. (Reprint of the edition published by E. Licht, New Haven, 1960, which was issued as vol 5 of *Physical Medicine Library*.)
31. Cyriax J. 1977. Deep Massage. *Physiotherapy* 63:60-61.
32. Cyriax J. 1984a. Theory and practice of massage. *Textbook of Orthopaedic Medicine*. Vol 2, *Treatment by Manipulation, Massage and Injection*. 11th Ed. Toronto: Bailliere Tindall.
33. Cyriax J. 1984b. Passive movement. *Textbook of Orthopaedic Medicine*. Vol 2, *Treatment by Manipulation, Massage and Injection*. 11th Ed. Toronto: Bailliere Tindall.
34. Cyriax J. 1984c. Indications for and against deep friction. *Textbook of Orthopaedic Medicine*. Vol 2, *Treatment by Manipulation, Massage and Injection*. 11th Ed. Toronto: Bailliere Tindall.
35. Hammer WI. 1993. The use of transverse friction massage in the management of chronic bursitis of the hip and shoulder. *J Manipulative Physiol Ther* 16(2):107-111.
36. Li ZM. 1984. 235 cases of frozen shoulder treated by manipulation and massage. *J Tradit Chin Med* 4:213-215.
37. MacGregor M. 1971. Manual treatment at the knee. *Physiotherapy* 57:207-211.
38. McKinney LA. 1989. Early mobilisation and outcome in acute sprains of the neck. *BMJ* 299:1006-1008.
39. Mealy K, Brennan H, Fenelson GCC. 1986. Early mobilisation of acute whiplash injuries. *BMJ* 292:656-657.
40. Schwellnus MP, Mackintosh L, Mee J. 1992. Deep transverse frictions in the treatment of iliotibial band friction syndrome in athletes: a clinical trial. *Physiotherapy* 78:564-568.
41. Wood EC, Becker PD. 1981. Effects of massage, in *Beard's Massage*. 3rd ed. Philadelphia: W.B. Saunders. pp 23-36.
42. Woodman RM, Pare L. 1982. Evaluation and treatment of soft tissue lesions of the ankle and forefoot using the Cyriax approach. *Phys Ther* 62:1144-1147.