## **Review of Scientific Literature**



### FACT SHEET (2

The following may assist you to understand the limitations of the science and make a more informed decision about massage therapy, remedial massage therapy and myotherapy.

### Massage therapy, remedial massage therapy and myotherapy (massage therapy) are used to provide relief from the symptoms of pain and stress and to improve mobility

The Australian Institute of Health and Welfare reports that: 'people who are not active enough have a greater risk of developing cardiovascular disease, type 2 diabetes, osteoporosis and dementia. Being physically active improves the immune system and mental and musculoskeletal health, and reduces other risk factors such as overweight and obesity, high blood pressure and high blood cholesterol. Physical activity can also improve symptoms and/or delay or halt the progression of a number of conditions or the onset of associated diseases and complications (Pedersen & Saltin 2015)'. invasive therapies used to manage chronic disease and lifestyle issues. They are not cures for disease or chronic conditions. They should be combined with a recommendation to increase physical activity as part of an integrated pain management plan, massage therapy can fill a gap for people who have debilitating conditions and who are seeking alternatives to medications and other therapies.

Since opioids are no longer recommended for chronic pain, alternative therapies such as massage therapy and myotherapy treatments, may be considered in managing chronic pain and stress effectively.

Massage therapy and myotherapy are low risk and non-

#### There is still much to learn about massage therapy

Measured clinical efficacy offers a degree of certainty for those providing clinical care and treatment.

Randomised Controlled Trials (RCTs) are considered the gold standard in research because they seek a lineal cause and effect relationship, by attempting to eliminate variables or influences that could affect the outcome and validity of the study.

Achieving a high degree of confidence is of paramount importance for new pharmaceuticals, surgery and allied health services which can pose a risk to patients, and to clarify to what extent a treatment is of benefit.

Achieving such rigorous research methodologies and measures has proved challenging for massage therapy researchers, with comparatively few of the thousands of studies undertaken during the past 40 years meeting these high standards. For example: of the 3,678 RCT articles reviewed in a 2016<sup>1</sup> study, 67 met the systematic review's inclusion criteria. Of the 980 studies gathered in a 2015<sup>2</sup> review of natural therapies, Australia's Chief Medical Officer found that only 99 massage studies conformed to the prescribed scope and limitations, and 17 were regarded as high quality.

A primary challenge to achieving a high-quality study is to include a blind study. The purpose of a blind study is to

ensure researchers, participants and therapists are unaware of when a placebo (fake) treatment is applied to a study participant. This is to reduce the likelihood of bias influencing the reported effects of a treatment by participants; or of the observed effects recorded by researchers.

Unfortunately, it is not possible for a massage therapist or myotherapist to provide a blind or pseudo treatment without knowing that they are doing so (2017<sup>3</sup>). Hence there is always a degree of uncertainty in the findings of studies involving massage therapy which limits the confidence medical researchers and medical practitioners have in massage related studies.

Also, there is no standardised scope of practice that is used by all massage therapists. As a hands-on therapy, massage therapists and myotherapists involved in trials subjectively use their own knowledge and experience to employ a variety of modalities and adjunct services to treat the condition in the study. This means the treatment applied can vary, and hence is often not recorded in detail. When this occurs it is difficult to interpret the results or duplicate the study (2018<sup>4</sup>), which also erodes the level of confidence attributable to the study findings.

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#### New research methods are helping to improve our understanding

Massage is never provided in a controlled clinical environment required by RCT standards, but rather in 'real world' situations, so researchers are now conducting studies to account for the challenges this poses in achieving conclusive results.

For example, during 2017<sup>5</sup>, researchers investigated the efficacy of massage and other nonpharmacological treatments for chronic low back pain in 'real world' primary healthcare. Participants completed questionnaires regarding their reported or perceived health, pain severity, function ability, and pain-related medications. At 12 and 24 weeks, of massage treatments, participants reported measured improvement across all areas. Of those with clinically improved disability at 12 weeks, 75% were still clinically improved at 24 weeks. Those with physical disability and related emotional and mental health showed clinically meaningful improvement at 12 weeks, and 46.1% and 30.3% at 24 weeks. For bodily pain, 49.4% were clinically improved at 12 weeks and 40% at 24 weeks. Adults older than 49 years had better pain and disability outcomes than younger adults.

Other researchers are developing standardised massage related studies with positive results.

A 2020<sup>6</sup> study investigated whether standardised massages are capable of reliably inducing physiological and psychological

states of relaxation. They successfully established two massage protocols focused on psychophysiological relaxation induced through massage. They measured significant higher effects because of the two nerve and shoulder massage protocols, compared to the resting control group. Measured effects included significantly improved heart rate variability and subjective relaxation.

Another 20207 study, which looked into the effects of massage techniques used to improve emotional state in outpatients with depressive disorders, found that the emotional distress of anxiety was often accompanied by sweating, dizziness, shortness of breath, insomnia, restlessness, and muscle aches. Consequently, they investigated the effects of a specially developed affectregulating massage therapy (ARMT) versus individual treatment with a standardised relaxation procedure of progressive muscle relaxation in 57 outpatients with depression. They reported a clear and statistically significant superiority of the specifically regulating massage therapy. They commented that the stronger impact of massage therapy on depressive mood, stress/tension, emotional retardation, sleep disorders, and hopelessness was particularly impressive."

## The available literature suggests that a combination of multiple therapies is often required to achieve optimal pain management results

Chronic pain can be complex and involve numerous comorbidities which require different treatments and involve a care plan with your doctor

Pain and stress are often inter-related, leading to the need to consider a broader range of indicators and measures. For example the Productivity Commission's 2019<sup>8</sup> draft report on mental health found that those with mental illness are 18–36% more likely to have musculoskeletal problems and suggests that a single care plan developed by the individual's primary treating clinician and covering physical and mental health can help address the issues raised by comorbidity.

Also referenced in the Productivity Commission report, the HILDA survey<sup>9</sup> undertaken by the Melbourne Institute, derives a measure for qualityadjusted lifeyears (QALYs) by combining a person's answers to physical and mental health-related questions involving the effect of physical pain, health or emotional problems on social and vigorous activities, bathing or dressing, work or regular daily activities, personal goals energy, or feeling down.

The US Pain Collaborative Report (2019<sup>10</sup>), driven by survey data on patient awareness and satisfaction with current chronic pain assessment instruments, provides patient-

informed recommendations that should be taken up by physicians, patients and advocacy organisations immediately to improve the lives of people living with chronic pain. The report found that comprehensive chronic pain assessment methods should reflect the multiple aspects of the patient's pain experience and capture chronic pain's impact on daily life, which in turn can impact on their mental health.

Such findings have a direct bearing for developing a better understanding about the value of massage, . which is to help people feel better by relieving pain (2016<sup>11</sup>) and stress. Massage should be incorporated as part of a multidimensional care plan because it can help people feel more motivated to participate in life productively.

For example various studies have reported improvements in the ability to walk with less pain (2018<sup>12</sup>), drive (2006<sup>13</sup>), engage in social activities (2016<sup>14</sup>), or engage in work, improve balance (2017<sup>15</sup>), maintain social ties for older people or people with chronic disease such as diabetes by improving functional mobility (2017<sup>16</sup>). Easing the debilitating symptoms of cancer pain (2015<sup>17</sup>) or improving sleep after cardiac surgery (2017<sup>18</sup>) in order to achieve a more positive disposition and normal functions.

# Review of Scientific Literature



#### Summary

FACT SHEET

In summary, people with chronic pain conditions should consult their doctor and discuss a range of treatments that are particularly suited to their needs and situation

As with all health-related therapies, no two people respond in the same way and no two therapists can provide a massage in the same way.

A 2008<sup>19</sup> review by the Canadian Institute of Work and Health concluded that massage was most effective when combined with education and exercise, and when administered by a licensed therapist.

Massage and myotherapy are not cures for disease or chronic illness, but examination of pressure, movement, friction, touch and human interaction as experienced by patients in a massage setting delivers consistent conclusions-that massage makes people feel better, by offering a sensory experience that relieves feelings of pain and anxiety (2016<sup>20</sup>).

Massage therapy may or may not be right for you.

You may discover a therapist that you are comfortable with, and that has the appropriate qualifications and skills to help you find a mix of pain management strategies suitable to your needs.

#### Endnotes

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#### **More information**

Through a simple Google search you can find more information from the following reliable sources:

- » Australian Massage Directory find a professional qualified local therapist
- » Massage & Myotherapy Australia website consumer section
- » Australian Government Health Directory free health advice
- » US Department of Health and Services massage therapy what you need to know.

Randomized Controlled Trials: Part I, Patients Experiencing Pain in the General Population

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