



In Pursuit of Proof: Cognitive Bias and Research Evidence in Massage Therapy Practice

By Earle Abrahamson

Does massage work? And if so, prove it! Recently, there has been an increased focus on providing evidence to support massage therapy practice. Evidence based practice is controversial and invites complex questions often at the expense of substantive answers. What evidence is sufficient? To whom do we need to prove our practices? What research methodologies best support the scholarship and practice for massage therapies? These questions require thought, understanding and collaborative analysis.

As a community of practitioners our methods and practices are often best received and analysed by our patients and clients who report anecdotally of their experiences. There is an increasing body of literature which provides empirical and qualitative support for the benefits and impact of massage therapy. For massage therapy as a field of applied practice to continue to grow, we now require meta-analyses to prove that what massage is and does is beneficial to patient healthcare.

This was recently highlighted, debated and challenged in the NICE guidelines for palliative care. The underlining premise was that complementary therapies, of which massage is one, was to be dropped from the guidelines. The complementary health field was ablaze with disgust and shock that such a comment or action was being considered. In response to the NICE proposals, complementary health organisations worked tirelessly to create a voice that spoke to the value and continued benefit for massage therapy as a necessary and essential component for patient healthcare. Many, however, argued that the reason for such a drastic decision, was partly based on the reduced evidence currently available to fully support the practices for massage therapy.

As chair of the Massage Training Institute, I circulated an article to our members and tutors written by Paul Ingraham, entitled 'Does Massage Therapy Work?' The reason for this dissemination was to encourage a culture of research mindedness and an awareness of the current critical scholarship around massage therapy as a health practice. The article is controversial at best but does provide a platform for critical analysis and reflection. I did not anticipate the responses I received. Initially members and tutors were vocal about the sarcastic tone of the article. Thereafter there appeared to be a sense of self-reflection and searching for new answers to old questions. I was pleasantly surprised to see this transformation in responses. As a result of my experiences and shared discussions with the MTI members and tutors, I thought it necessary to write an article that asks more questions than it can provide answers for, but equally highlights some of the myths and mysteries around research and evidence based protocols and practices within massage therapy.

In considering the content for this article, I recall a lecture I gave to some of my final year students around cognitive biases, the evidence we provide to support our thoughts and decisions. These biases provide an interesting dynamic in enabling practitioners to carefully consider and critique their thinking and decision making processes. It is not always what we see in research that is important, but rather what we fail to see and learn. I draw upon the work of Lee and Baer (2015) to outline 20 different cognitive biases that influence, and often muddle, our thinking.

Bias 1: Anchoring Bias

Individuals are often over-reliant on the first piece of information they hear or want to hear. We appear to accept information without judging the value, merit and application of the information and therefore tend to form opinions on limited understanding of content.

Bias 2: Availability heuristic

This bias represents the overestimation of the importance of information available. We may argue that massage is beneficial because our clients tell us so.

Bias 3: Bandwagon effect

The probability of one person adopting a belief increases based on the number of people who hold that belief. It may be easier for therapists to agree - than frame counter arguments to disprove beliefs and attitudes.

Bias 4: Blind-spot bias

Failing to recognise our own cognitive biases is a bias within itself.

Bias 5: Choice - supportive bias

When we choose something we tend to feel positive about it, even if the choice has flaws. An example of this in therapeutic practice may be to rely on a set technique even if the outcome is negative.

Bias 6: Clustering illusion

This bias refers to our tendency to see patterns in random events. We may decide to read research articles and as part of the reading process map the content of the articles to support or refute an argument, even if the patterns we use do not align with the research argument itself.

Bias 7: Confirmation bias

We tend to listen only to information that confirms our preconceptions. This is one of the many reasons why it may be difficult to analyse the benefits and barriers of massage therapy practice.

Bias 8: Conservatism bias

This bias describes how individuals favour prior evidence over new evidence. As a community of practice, massage therapists, may feel more comfortable using existing techniques and methodologies rather than changing approaches to accommodate new techniques and strategies.

Bias 9: Information bias

The tendency to seek information when it does not affect action. More information is not always better. Less information may be more useful in making more accurate predictions.

Bias 10: Ostrich effect

The conscience decision to ignore dangerous or negative information by burying one's head in the sand. As a community of practice, massage therapists actively need to challenge and defend their thinking and actions irrespective of negative or critical comment.

Bias 11: Outcome bias

This bias pertains to how individuals judge a decision based on outcome as opposed to how the decision was made or formulated. To illustrate this bias, one of my students recently concluded that active myofascial release was the answer for tight hamstring release. What is evident is that just because a technique was successful does not imply that it should become the technique of choice when treating similar cases.

Bias 12: Overconfidence

This is an interesting bias, almost silent in many practitioners, but one that presents a dichotomy between being correct and being overconfident. This bias presents the potential conflicts that may arise through overconfidence in one's ability. There is a fine line between gaining expertise and becoming an expert. Massage therapists need to be attentive to what they know and how they present their knowledge and knowing. To develop our thinking we need to engage with scholarly activities.

Bias 13: Placebo effect

The belief that something will have an effect will often lead to an effect irrespective of the effect being experienced. By clients believing that effleurage, for example, is

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beneficial for pain management, may well lead to them experiencing reduced pain after receiving effleurage. This may be based more on the belief than the massage technique itself.

Bias 14: Pro-Innovation bias

This bias describes how the advances in innovation may overvalue its usefulness and undervalue its limitations. This is particularly evident in mobile technologies.

Bias 15: Recency

The tendency to weigh the latest information more heavily than older data. One needs to be critical about new information and work towards sound judgements in weighing up the value, impact and application of new knowledge and ways of knowing.

Bias 16: Salience

This bias pertains to our tendency to focus on the most easily recognisable features of a person or concept. Student practitioners may worry more about working on difficult and complex soft tissue cases than the statistical reality of the common cases they are more likely to see in practice.

Bias 17: Selective perception

Allowing our expectations to influence how we perceive the world. This could explain how we develop our philosophies of practice.

Bias 18: Stereotyping

Expectations that a group or individual possesses certain qualities without having sufficient information about the group or individual.

Bias 19: Survivorship bias

This bias explains how focusing only on surviving examples may lead one to misjudge a situation. In clinical practice we may hear that certain techniques are safe as there has yet to be reports of the technique failure or misuse.

Bias 20: Zero-risk bias

This final bias describes how we, as individuals, love certainty - even if it's counterproductive. Eliminating risk entirely means there is no chance of harm being caused.

“Research is to see what everybody else has seen and to think what nobody else has thought”

Albert Szent-Gyorgyi, noble prize winner

These 20 cognitive biases describe how our thinking can often influence our actions and decisions. As practitioners, therapists, scholars and educators, we need to fully understand what it is we do, how our work influences and impacts health, and how we learn to draw meaning from research to further develop our skills and thinking. We need not only read and use research to inform our practice, but equally contribute towards research by sharing experiences, client narratives and actively analysing and reflecting upon our actions and thoughts. If we adopt a critical evaluative approach to our work, we will be better placed to defend our skills, curricula and approaches to healthcare. This in turn, may help others see and value the work we do.

This article began with a question - Does massage work? We may be able to provide evidence in support of how massage works, however, the answer is not as important as the questions we need to ask. Through research mindedness we begin to invest our energies in asking new and different questions that enable us to develop innovative and systematic approaches within our practices. We learn that practice based

evidence informs evidence based practice and this fuels our journey into inquiry.

Through research and scholarship we learn to see things through different lenses and accommodate new found knowledge. We simply need to scroll through web pages to realise the expansion in complementary medicine research along with conferences and symposia to support intellectual and academic argument and discussion.

Our ability to research our practices and ask different questions is perhaps best expressed in the words of Albert Szent-Gyorgyi, noble prize winner, who wrote: “Research is to see what everybody else has seen and to think what nobody else has thought”.

It may not always be important what we think, but rather how we think and compose our thoughts.



Earle Abrahamson is the Chair of the Massage Training Institution (MTI), elected member of the massage therapy PSB on the CNHC, Vice-Chair of the GCMT, and director at Hands-on Training, a specialist massage training school in North London. In 2012, Earle was the recipient of the ICNM outstanding contribution to complementary medicine, and was awarded an ICNM fellowship in 2013. He was part of the Medical Gamesmaker team for the London 2012 Olympic and Paralympic Games.



Further Information:

www.hands-on-training.co.uk
www.massagetraining.co.uk

References & Websites

<http://www.businessinsider.com.au/cognitive-biases-that-affect-decisions-2015-8>
<https://www.painscience.com/articles/does-massage-work.php>