

# Shiatsu and Acupressure

## A review of the effectiveness of evidence



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## **Introduction to the Systematic Review** **By Carola Beresford-Cooke**

Commissioned by the Shiatsu Society UK, this piece of work is not in itself research, rather it is an examination and assessment of all the research that has been done into Shiatsu and acupressure.

Why has this been done?

- △ It is an up-to-date gathering together of research into Shiatsu and acupressure, providing a much-needed overview of the field
- △ The review shows the extent and some of the potential scope of the possible applications of Shiatsu and acupressure
- △ It alludes to the challenges facing the researcher in the field of “energy medicine”
- △ It demonstrates the criteria needed for research, so that reading the review is equivalent to an education in how research can be done according to recognised standards and procedures
- △ The review is in itself an unbiased and rigorous work of scholarship, which assesses its own strengths and limitations according to accepted guidelines. It shows the clear intent of the Shiatsu community to look at its work impartially, which can only increase the respect in which it is held in wider scientific circles

It is clear that if Shiatsu is to achieve the degree of recognition and respect that is accorded to acupuncture, the Shiatsu community must acquire two linked resources – a body of research results; and a body of literature that not only describes and illuminates Shiatsu in its own vivid and poetic terms but also incorporates the science which lies behind both Shiatsu bodywork and the research into its effectiveness.

### **The Importance of Research**

The way forward for Shiatsu is clear. After its initial enthusiastic adoption by the public in the '70's and '80's it has reached a plateau. The public has educated itself widely in the many forms of complementary medicine and now expects Shiatsu to justify its claims for effectiveness.

Many research studies have been carried out on acupuncture, which has a longer written history and stronger public profile than Shiatsu, most of these studies in China, where the cultural and social situation favours research efforts of this nature, and they cost less.

In the West, the situation is very different. The vast majority of clinical trials, which cost a great deal, are funded by pharmaceutical or biotechnology companies, even if they are sponsored by a governmental or public organization. These companies can easily fund the expensive process of controlled studies, as is required by the evidence-based medical movement; Shiatsu is not in that position.

The number of patients enrolled in a study has a large bearing on the ability of the study to evaluate the effect of the intervention reliably. This is described as the "power" of the trial. The larger the sample size or number of participants in the trial, the greater the statistical power. BUT more patients make for a more expensive trial. Hence the greater power of the studies funded by the pharmaceutical companies. And, of course, in a trial which involves bodywork (a more complex procedure than the simple taking of a tablet) the larger the trial, the greater the variations between the procedures and therapeutic abilities of the practitioners.

To return to the question of size of study and expense of funding, the current situation in the West means that most future research into Shiatsu will have to be done by the Shiatsu community itself, and we will have to educate ourselves in research methodology accordingly. Research can only prove the effectiveness of Shiatsu if it is done according to recognised procedures which allow comparisons with studies of other therapies already approved by the NHS or a similar body.

The energy in the Shiatsu community is positive and powerful, and this Review gives us all much information about carrying out research. Nonetheless, there are certain challenges which we will be called upon to encounter along the way, and which can only increase our understanding of our therapy.

### **The Placebo Effect**

While any double-blind controlled trial of pharmaceuticals involves the administration of a dummy drug in such a way that neither researcher nor subject knows it is a dummy, practitioners of any form of “energy medicine” know that it cannot be applied in a “sham” way as if administering a tablet, so that we can see that in some of the studies “sham” acupressure works nearly as well as the “real” acupressure.

The aim of a double-blind controlled trial is to measure the effectiveness of the drug or treatment method against placebo, but to some extent the practice of any form of contact therapy *is* arguably placebo. The simplest of touches can have measurable effects. A study showed that when a nurse laid a hand on patients awaiting surgery while they read a pre-operative pamphlet it had measurable effects on their blood pressure (Whitcher and Fisher, 1979). Although the study was designed to show the difference between the ways in which men and women reacted to the touch, we can see the powerful effect of simple bodily contact, and the ideal of “objectivity” is immediately compromised.

Given that in a recent trial to evaluate the effectiveness of the herb St. John's Wort as compared with an anti-depressant and placebo it was the placebo that produced the best results, it is clear that the placebo effect is a powerful healing agent (Richard Shelton et al., 2001). I am reminded of a cartoon I saw many years ago of two old ladies in a doctor's waiting room, discussing their ailments – one is saying to the other “Have you tried placebos? I hear they're marvellous.” In fact, as we know that we work with the body's self-healing power, we should perhaps be proud to acknowledge the placebo component of Shiatsu rather than struggling to disassociate ourselves from it.

However, it is clear that the much-vaunted “double-blind controlled clinical trial” results can not be achieved for Shiatsu, no matter how rigorous the research procedures.

### **Differences between Shiatsu and acupressure**

The majority of the research studies examined in this review have been conducted on the use of acupressure rather than Shiatsu – in other words, the treatment under consideration has been the use of particular points selected for a certain health condition and applied according to certain guidelines.

In many of these studies the health condition for which the points were used was a category defined by orthodox Western medicine, such as asthma, bronchiectasis or hemiplegia, rather than the patterns of disharmony for which the points might have been prescribed in context (e.g. Damp Phlegm in the Lungs or Kidneys Failing to receive Qi). This is poor patient sampling procedure from the TCM point of view, although it might make any results more convincing to western eyes scrutinising the results.

It is obvious, however, that this is a much easier form of treatment to study than the more fluid form of, for example, Zen Shiatsu, in which the session is tailored to a Hara diagnosis which varies from receiver to receiver, and can vary from session to session, although some studies use “individualised acupressure” as a category of treatment, which is likely to be more variable. Acupressure is more likely to yield quantitative

data, as its methods can be more strictly controlled. Acupressure, and other forms of Shiatsu which use more long-term forms of diagnosis, is therefore better adapted for use in specific conditions, although the receiver may be less likely to experience it as qualitatively life-enhancing than the more fluid, less results-focused Shiatsu styles. We are fortunate that our therapeutic discipline contains both possibilities.

So, while the life-enhancing, non-prescriptive styles of shiatsu can lead us to engage further with questions such as “what is health?”, it seems that if we want quantitative research results we would do well to incorporate a few symptomatic points in our sessions, and also teach them to our receivers to use in between treatments (a valuable extra research resource). We do not need a profound knowledge of point functions, as few points have been exhaustively researched and many have multiple functions. This would be a positive way of utilising Shiatsu's connection with the rich tradition of East Asian medicine, and of producing quantifiable symptomatic effectiveness within a nurturing and intuitive session.

### **Research criteria**

The final challenge is to master the methods of doing research. Here we are helped by three sets of guidelines, which are listed in the Review, the STRICTA (Standards for Reporting Interventions in Clinical Trials of Acupuncture), CONSORT (Consolidating Standards of Reporting Trials) for randomized trials and TREND (Transparent Reporting of Evaluations with Nonrandomized Designs) for non-randomized ones. The detailed requirements of each of these are listed in the Review, but here is a brief summary of the factors which can influence the results of the kind of research that would provide evidence of effectiveness of shiatsu versus usual care or no other treatment:

- ⤴ In order to determine the success or not of the trial, the expected outcome (for example, diminishing the frequency or the severity of migraines, or both) needs to be specified at the outset. For more qualitative research there still needs to be a question or hypothesis, although necessarily less specific.
- ⤴ How were the research subjects selected? Did they volunteer? Were they paid? Did they pay? Have they had Shiatsu before?
- ⤴ Are the research subjects matched in any way, e.g. similar age, same gender, same ethnic or cultural background, same health condition (Eastern or Western)?
- ⤴ What is the sample size? Does it change? e.g. do any receivers drop out?
- ⤴ Is there a control group? If so, the same information needs to be given about the control subjects. What alternative treatment, if any, is offered to the control group, when, where and how?
- ⤴ Is there more than one practitioner, and if so, what are the differences and similarities between practitioners and their way of working?
- ⤴ Is the treatment carried out at the same place each time? If the settings or context are different, what are the main differences?
- ⤴ What is the degree of preparation/explanation given to research subjects and is it the same each time?
- ⤴ What is the style/method of treatment and does it differ from receiver to receiver?
- ⤴ Are any other modalities used, e.g. exercises, meditation, self-acupressure?
- ⤴ Is there any follow-up?

These guidelines refer only to the research methodology for controlled studies where comparisons are being made. Those that are controlled studies (i.e. studies where one group receives the treatment under scrutiny and one does not; both are compared) are assigned a grading according to specific criteria. The presentation of the research is also subject to certain guidelines, listed in the Review.

The review process is designed to evaluate the research according to the same criteria used in examining the effectiveness of a medical intervention. These criteria allow assessment of controlled studies, which were used in the research into acupressure but not Shiatsu. In consequence, the evaluation of Shiatsu as an evidence-based treatment is as prosaic and stark as a review of a pharmaceutical intervention. This lens used to evaluate Shiatsu studies thus appears critical to those unfamiliar with either the vastness of the application of Shiatsu or the struggle within scientific history to attain objective data. We have before us a large gathering of literature in the format of a quantitative, evidence evaluation, rather than a qualitative appreciation of what Shiatsu has to offer.

## **Conclusion**

This Systematic Review marks the beginning of a new phase of development for Shiatsu worldwide. Having moved on from its former association with the bath-house, Shiatsu has taken different philosophical and theoretical directions. The Shiatsu community is now able to know itself, to recognize its different schools and styles as ornaments and manifestations of its great human diversity, rather than as enemies or competitors. It has moved into exploration of science and philosophy, both Eastern and Western, in its attempts to understand the power and effectiveness of Shiatsu touch. It has consolidated its links with the written East Asian medical tradition from which it originally arose, without abandoning its intuitive and feeling components.

It is now time to take a further step, demonstrating to the wider world not only the effectiveness of Shiatsu but also the ability of its practitioners to examine what they do within specific criteria. If defining the limitless space of Shiatsu experience within pre-drawn boxes is what is required in order to bring Shiatsu to more people in the world, then that is what we will do: and this review is the first manifesto of our intent.

Shelton, R. C. & Keller, M.B. et al. (2001). Effectiveness of St John's Wort in Major Depression *JAMA*. 2001;285(15):1978-1986. doi: 10.1001/jama.285.15.1978

Whitcher, S. J., & Fisher, J. D., (1979). Multidimensional reaction to therapeutic touch in a hospital setting. *Journal of Personality and Social Psychology*, 37, 87-96.

## 1. Executive Summary

The aim of this evidence review was to identify and appraise scientific publications on the effectiveness of Shiatsu and acupuncture. It is hoped that this report will help to determine the direction of future research for the Shiatsu profession.

Two comprehensive searches were conducted (2006, with an update in 2010) using the following databases; MEDLINE, Cochrane, EMBASE, CINAHL, AMED, PsycINFO/PsycARTICLES, BNI, Blackwell Synergy, Ingenta, Science Direct and Index to Theses. In line with NICE guidance on informing guidelines regarding treatment effect, only systematic reviews and research studies were included.

Acupuncture and Shiatsu use the same points and are based on the meridian system of Traditional Chinese Medicine, although acupuncture is just one of the techniques used in Shiatsu practice, within the context of an energetic evaluation and whole meridian system treatment. On this basis, it was agreed that acupuncture studies should be included in the review, as they may provide information for Shiatsu practitioners using points for a specific condition.

The combined results from the two searches initially identified 1714 studies (604 in the 2006 review and an additional 1103 in the 2010 review). After applying exclusion criteria and quality assessment 9 Shiatsu and 80 acupuncture publications remained for review and appraisal. The 9 Shiatsu publications comprised three uncontrolled studies, three controlled non-randomised, one within-subjects trial, one observational study and one randomised controlled trial (RCT). For acupuncture, six were systematic reviews, two meta-analyses, 47 RCTs, five crossover trials, five within-subjects trials, seven controlled non-randomised, seven uncontrolled trials and one prospective study. In addition 56 studies were included as background information.

The Shiatsu studies covered a diverse range of health issues (chronic stress, schizophrenia, promoting well-being and critical health literacy, angina, low back and shoulder pain, fibromyalgia, chemotherapy side effects/anxiety and inducing labour), but evidence was very limited. Apart from one large-scale observational study, the methodological quality of these studies was generally poor. The evidence base for musculoskeletal and psychological problems is promising and may be a good area to focus future efforts, given the popularity of Shiatsu for these conditions in the UK.

Studies on acupuncture provided fairly strong evidence for its use in the treatment of pain, especially dysmenorrhoea, lower back pain and labour pain. Evidence for acupuncture for nausea and vomiting was inconsistent, with the strongest evidence for post-operative nausea. There was strong evidence for acupuncture in improving sleep in institutionalised elderly. Evidence for stroke, mental health issues and chronic respiratory conditions was inconclusive, with the strongest evidence for chronic obstructive pulmonary disorder (COPD). Weak evidence was identified for patients with renal disease, visual impairment and cancer therapy side effects other than nausea and vomiting. The remaining acupuncture studies provided evidence of variable quality on its effect on consciousness/anaesthesia, weight loss/gain and a range of other health issues. Many of the conditions with the strongest evidence are those which conventional medicine struggles to treat, or result from conventional treatment, highlighting the potential benefit of an integrated treatment approach.

The methodological quality of studies and the health issues investigated for both Shiatsu and acupressure were heterogeneous and therefore study results could not be pooled. The main methodological limitations of the studies included: small sample sizes; insufficient details on sampling and follow up; high drop out rates; uncontrolled design; lack of blinding and poor reporting.

The amount and quality of research appeared to have improved recently. Improved reporting may be due to the publication of a range of guidelines such as CONSORT and STRICTA.

Much of the evidence was for protocol-based acupressure using set acupoints, which has limited application to Shiatsu practice. The nature of shiatsu, as distinct from acupressure, is that it is a complex intervention whose techniques, including diagnostic, and effects are implemented within the individual therapeutic relationship between the practitioner and client in every treatment and are invariably different each time. This requires a complex and project specific methodological design which may include a combination of methods modified to suit the particular research question and research conditions. Alternative study designs such as pragmatic, whole systems, observational, mixed-methods, or qualitative studies may address this issue. The research base for Shiatsu still remains very much in its infancy and the profession will need to work closely with its practitioners and researchers in order to build up evidence of effectiveness. Specialised randomised trial designs may be most appropriate, such as those based within whole systems research, three armed (placebo and sham), mixed-methods or preference trials, pragmatic designs, and randomisation by TCM diagnosis.

Recommendations following this review include:

- Promote research investigating the effectiveness of Shiatsu as an intervention
- Encourage practitioners to engage in research, including randomised controlled trials, observational and epidemiological studies, which is well designed and reported (in particular practitioner variability, randomisation procedure and setting)
- Investigate the appropriateness of various research methodologies for Shiatsu research, including pragmatic studies, alternative RCT designs such as preference trials, TCM diagnosis allocation, whole systems research, three armed, and mixed-methods designs.
- Clarify the relationship between Shiatsu and acupressure for marketing and public awareness
- Consider the development and piloting of an adverse event reporting system for Shiatsu
- Explore clinical effectiveness of Shiatsu in an integrated setting
- Identify specific topic areas for initial research investment, potentially psychosocial and musculoskeletal.
- Develop an evaluative framework for integrated Shiatsu practice, perhaps using pragmatic trial designs.
- Improve research resources for the profession