



How to Read Research Papers - Case Reports

By Kristina Pfeifer of the Shiatsu Research Network



Kristina is a full-time Shiatsu practitioner in Austria, focusing on clients with severe conditions. Together with a group of colleagues she initiated the Shiatsu Research Network back in 2017 for nourishing interest in research within the Shiatsu community. The Shiatsu Research Network is an international, not-for-profit volunteer effort to establish an open platform for developing and supporting scientific research projects, providing mutual exchange of knowledge and presenting expertise in the world of Shiatsu. admin@shiatsu-research-network.org, <https://shiatsu-research-network.org>

This article is the second in a series of 4 articles from the Shiatsu Research Network - www.shiatsu-research-network.org – looking at evidence-based medicine and how we can integrate research into our practices.

The first of this series was ‘Evidence-Based Medicine and Research for Shiatsu Practitioners’ written by my colleague Stergios Tsiormpatzis (please see Shiatsu Society Journal, Winter ‘20 - Issue 156, pp. 33-38). If you are curious about research and wondering whether you would like to write a formal Case Report yourself, we suggest initially reading existing Reports in the broader field of bodywork, so that you can get an idea what they look like. You may also gather precious insights for your own practice from their content. In the next article in our series, we will show you how you can start writing one yourself. At first sight, the scientific language may appear to be unwieldy but don’t be put off by that, you will soon get used to it and find them quite easy to read. Have another look at Stergios’s article as well - he provides you with some professional expressions which help to understand scientific content - and some other common terms in scientific papers will be discussed here as well.

Have you ever tried to do advanced training in Shiatsu by browsing through the National Library of Medicine ‘Pubmed’ (<https://pubmed.ncbi.nlm.nih.gov/>)? This is one of the largest online libraries of research papers in medicine. If you haven’t, then give it a shot. For example, you may want to know about the documented effects of Shiatsu or other body therapies (eg Tuina, Massage, Acupressure, Acupuncture) on specific pathologies - or you may want to know about the latest findings on a specific health problem. You will be surprised how you gain new insights that can boost your professional approach in Shiatsu. While exploring, you will read the short but very useful ‘Abstracts’ of studies. To read more you may need to download or sometimes purchase a document - the so-called ‘body content’ - but the Abstract is always free to access and may be sufficient for your initial exploration.

So - imagine - you go to a library and find endless numbers of Case Reports about Shiatsu (this is a fiction, but let’s imagine it may one day be possible!). You are looking for specific Cases to help you with a particular problem in your practice and you want to find them fast. What would you want them to look like? What would help you along?

Well first, you would hope to narrow down your search with keywords. When you have done that, you may be glad if the titles tell you swiftly and accurately what they are about, right? You hope that you aren’t missing anything while sorting through these titles. Then, suddenly, you find a title that perfectly fits your search. You want to take a closer look at the Case without needing to read the whole document. Luckily, there is a short summary of the Report at the beginning. The data in this summary gives you a clear idea about the Case, its conditions and results.

While reading it, you decide to take a look at another Report. Again, you first check out the summary. You are happy to find that both summaries have a similar structure, making your investigation more efficient, supporting comparisons and helping you to find the specifics more easily.

Precisely for this purpose, experts have established guidelines for creating various Case Reports with a common structure in order to support efficient comparison, content accuracy and sufficiency. You can find easy-to-read guidelines here: <https://www.care-statement.org/>

In this article so far, you may have noticed that I've been referring to 'Case Reports' – and many of you are more familiar with the term 'Case Study'. To clarify therefore, I'd like just to specify the main significant differences between a Case Study and a Case Report:

- A formal Case Study is planned in advance and then implemented - it has prospective planning and needs prior consent by an ethics committee
- A Case Report is simply documentation **after** a series of regular treatments in practice. The initiative for writing it follows the treatments – so it is a retrospective presentation. It does not need consent by an ethics committee

Unfortunately, no Shiatsu Case Reports are available yet (yes - you could be the first to write one!) so we will examine a formal Case Study by Angela Burke called 'Zen Shiatsu:

A Longitudinal Case Study Measuring Stress Reduction in a Child with Autism Spectrum Disorder'. Search for 'Burke Shiatsu' on the PubMed site: <https://pubmed.ncbi.nlm.nih.gov/>.

In structure, this open-access paper is very similar to a Case Report. Roughly, it is divided into 3 sections: Title, Abstract and Report.

Title

The title 'Zen Shiatsu: A Longitudinal Case Study Measuring Stress Reduction in a Child with Autism Spectrum Disorder' [Burke 2014] immediately provides a very precise and short summary of the setting and a clear declaration that the same person was observed from beginning to end - this is the meaning of 'longitudinal' - as a single case.

With 'Zen Shiatsu', Burke names the type of intervention, with 'longitudinal case study' she presents the research design, and with 'autism spectrum disorder' we are directly informed about the pathology being addressed for this client.

Abstract

Let's now have a look at Burke's Abstract, which is divided into 'Introduction', 'Objective', 'Methods', 'Results' and 'Conclusions'. We'll skim through each passage and take a look at how it tries to guide us through the Case:

'Introduction: *Autism Spectrum Disorder (ASD) is a developmental disability that manifests as impairments in social interaction, communication, and behavior.'* [Burke 2014]

The Abstract introduction asks for 'patient's main concerns', 'clinical findings', and 'primary diagnoses, interventions, and outcomes' [Care 2013]. In other papers, authors may choose to start the introduction with 'what new knowledge does the Case add?', according to the CARE Guidelines for Therapeutic Massage and Bodywork Publications [Munk et al. 2014]. But in our case, Burke has chosen to start the 'Introduction' with the patient's main concerns.





'Objective: *The objective of this study is to determine if Zen Shiatsu can reduce short- and long-term stress levels in a child with ASD.'* [Burke 2014]

Here we find the 'new knowledge' that Burke wants to add to the scientific literature. She expresses it very efficiently in this overall objective of her case. We can also write an objective for a Case Report - as we write our insights down after we have gathered our experiences in practice. We can simply ask ourselves: 'What have we learnt from our Case? What does it add to the literature?'. Then when we write it up, we just turn the wording from 'the objective is to determine' and express it as, for example, 'the objective is to investigate/depict/report how or whether ...'.

'Methods: *This is a longitudinal case study of a seven-year-old male with a diagnosis of autism who was given 20-min Zen Shiatsu sessions weekly for six consecutive weeks. Using a five-point stress scale designed for children with autism, the client indicated his stress level before and after each session. In addition, the parent was given the PEDS QL 4.0 Young Child Questionnaire to determine the child's HRQoL (Health Related Quality of Life) prior to Zen Shiatsu treatment to establish a baseline. The parent completed the same questionnaire after six weeks of sessions to compare results.'* [Burke 2014]

In this section, Burke briefly presents the client's profile and diagnosis, the type and duration of intervention, the means for the outcome measurements (a specific standardised questionnaire), the outcome measures themselves (HRQoL),



and also when these were taken. Thus, she describes the 'primary diagnosis', 'interventions' and the type of 'outcomes'.

You may wonder if you should also use a questionnaire to help investigate the changes your clients are experiencing with your treatments? If you are not doing so, it's certainly a good idea to at least start thinking about it. At the Shiatsu Research Network, we do have a special section on the homepage presenting some recommended questionnaires (if English isn't your first language, you might like to check out what questionnaires are available in your mother tongue). It may take a while to find a questionnaire that suits you and your practice, but it will enable you to present results in the way that Burke does (see below).

'Results: *Based on the five-point pictorial stress scale, data collected before and after each Zen Shiatsu session indicated a decrease in stress levels after treatment. The PEDS QL 4.0 showed higher HRQoL scores in all domains, indicating that*

the child's overall quality of life improved within the six weeks of receiving Zen Shiatsu.' [Burke 2014]

Until we get to this Results passage, Burke has only been describing the means and types of possible outcome. Now she presents what the outcomes actually were – which is pretty striking - and from which she can cautiously draw conclusions.

'Conclusions: *Zen Shiatsu, a Japanese modality based on traditional Chinese medicine, provided meaningful and positive benefits for a child with autism. This case study offers preliminary evidence for the possibility of Zen Shiatsu providing a viable complementary therapy for alleviating stress in children with Autism Spectrum Disorder, thereby potentially improving the overall health-related quality of life.'* [Burke 2014]

Here we go back to the question 'what new knowledge does the Case add?' [Munk et al. 2014]. More specifically, it

responds to this question, ‘What is unique about this case and what does it add to the scientific literature?’ [Care 2013]. This is an important basis for Case Reports. Their nature is not repeatedly to report on common cases - if we start doing that, we will have to make a proper study proposal to be cleared by an ethics commission beforehand. Rather, the unique and special nature of the case makes it viable for reporting *after* the intervention. To demonstrate this clearly, the above-posed questions are vital to the document.

It is important to notice how Burke uses this very cautious expression: ‘Preliminary evidence for the possibility...’. She does not state ‘it is proven that’ or ‘is proof of’ because in science you never use such definite expressions. There is always the chance that someone may demonstrate otherwise and, in science, just one or a small number of cases can never be considered as proof for all cases. The possibility of errors, faulty correlations or counter-evidence must always be taken into account.

Report

We could now go on to discuss the whole of Burke’s Case Study here, but that would exceed the frame of this article and actually there is no need to do so. Having skimmed through the Abstract you are well equipped to read the whole report, because it is basically the long version of the Abstract put into a more comprehensive narrative. Just go along, start reading and have fun!

We also recommend these 2 really interesting Case Reports:

Schitter & Fleckenstein:
‘Passive Hydrotherapy WATSU® for Rehabilitation of an Accident Survivor: A Prospective Case Report’

<https://pubmed.ncbi.nlm.nih.gov/29758556/>

Qi, Lou & Tan: ‘The ‘Tongmai Tiaoshen’ abdominal massage therapy of traditional Chinese medicine improves sleep quality of chronic insomnia patients: A case report’

<https://pubmed.ncbi.nlm.nih.gov/33360562/>

Do you want to dive deeper into reading health research papers? Have a look at the ‘How to read a paper’ article series by Trisha Greenhalgh in the British Medical Journal: www.bmj.com/about-bmj/resources-readers/

publications/how-read-paper. All papers are free to access in PubMed. Or get her classical textbook ‘How to Read a Paper: The Basics of Evidence-based Medicine and Healthcare’ and start experimenting.

I really hope we have attracted your interest in this subject of integrating research into your practice – so valuable for raising the public profile of our wonderful work with Shiatsu!

In the next article of this series we will - as requested by participants at our first webinar - provide you with a template for documenting your cases and the process of your client’s changes. So, stay tuned and let’s meet again here in the Shiatsu Society Journal.

References:

- Care, 2013. 2013 CARE Checklist, Portland. <https://www.care-statement.org/checklist>, 2nd April 2021
- Burke, A., 2014. Zen Shiatsu: A Longitudinal Case Study Measuring Stress Reduction in a Child with Autism Spectrum Disorder. *International Journal of Therapeutic Massage & Bodywork: Research, Education, & Practice*, 7(4), 23-28. <https://doi.org/10.3822/ijtmb.v7i4.246>
- Munk N., & Boulanger K., 2014. Adaptation of the CARE Guidelines for Therapeutic Massage and Bodywork Publications: Efforts To Improve the Impact of Case Reports. *International Journal of Therapeutic Massage & Bodywork: Research, Education, & Practice*, 7(3), 32-40. <https://doi.org/10.3822/ijtmb.v7i3.251>
- Qi S., Lou S., Tan T. The ‘Tongmai Tiaoshen’ abdominal massage therapy of traditional Chinese medicine improves sleep quality of chronic insomnia patients: A case report. *Complement Ther Clin Pract*. 2021 Feb;42:101292. doi: 10.1016/j.ctcp.2020.101292. Epub 2020 Dec 24. PMID: 33360562. <https://pubmed.ncbi.nlm.nih.gov/33360562/>
- Riley D.S., Barber M.S., Kienle G.S., et al., 2017. CARE guidelines for case reports: explanation and elaboration document. *J Clin Epidemiol*. 2017 Sep;89:218-235. doi: 10.1016/j.jclinepi.2017.04.026. Epub 2017 May 18. PMID: 28529185.
- Schitter A.M., Fleckenstein J., 2018. Passive Hydrotherapy WATSU® for Rehabilitation of an Accident Survivor: A Prospective Case Report. *Complement Med Res*. 2018;25(4):263-268. doi: 10.1159/000487768. Epub 2018 May 15. PMID: 29758556. <https://pubmed.ncbi.nlm.nih.gov/29758556/>