



## Evidence Based Practice (article no 4)

By reading and following RiEN newsletters 2011/2012

- **You now know** what reflexology research is and is not (article 1, September 2011)
- **You know how** to find scientific research (article 2, December 2011)
- **You know how** to find research in your own language (article 3, February 2011)

This article - article no 4 - is written to give you an idea of "*Evidence-based practice*"

The article will be followed by a one-hour PowerPoint presentation at the 7th European conference in Luxembourg May 2012, with the titles: "Paediatric CAM, International evidence based practice"

### What is the evidence?

Frequently you read in the media and the press of the requirement for evidence based practice in healthcare. This same requirement is made of complementary and alternative medicine (CAM)

*But what do doctors, researchers and others mean when they talk about evidence?*

Evidence in short is:

- **to know what works / does not work**
- **is published**
- **to investigate unintended effects**

There are several reasons for the requirement of evidence. The most significant is the fact that it is unethical to offer treatment that's not effective. A treatment can be effective in some areas while it may have unintended consequences in others.

It is therefore important that healthcare professionals, whether they are associated with conventional or complementary therapeutic areas, including reflexologists, are aware of collecting the results of treatments.

Within the healthcare system you'll find a so called "evidence hierarchy". Some forms of evidence are assessed to be better than others.

### Evidence hierarchy

The below hierarchy, is usually referred to. Researchers with knowledge and understanding of CAM have presented another view to this. The so-called "Circular" model" You can read more about this in the scientific article mentioned at the end of this article (reference 1).

The so-called "traditional" evidence hierarchy looks as follows:

- Systematic reviews (overview article)
- Randomized clinical study
- Cohort study
- Cross-sectional Study
- Case-study report

Case report, cross-sectional and cohort studies are, together with randomized clinical trials, research methods on the single study level. Within the scientific approach, you will usually find that this is insufficient evidence. It is not enough that a single study has shown that a treatment works/don't work. It may be that there are other studies that have shown the opposite!

Repetition and reproduction of research is very important. Repetition is the same person repeating the research in the same place; reproduction is someone else doing it elsewhere. Both are required in mainstream evidence.

Systematic reviews provide a better evidence because they summarize the results of many single studies. A systematic review is a review article based on an overall assessment of research published in a given area. This could for instance be research on the impact of reflexology for migraine or constipation.

### **Construction of systematic reviews**

Systematic reviews are built by a specific system in relation to search, select and assess the quality of research. The intention is to avoid errors, for example by selecting only very negative or very positive results.

It is very different how many research results available on a given area. The quality of the studies may also vary greatly. If there is a large number, the author of the review for example chooses to include only studies with the highest quality.

Researchers can use various criteria to select and deselect results. The most important is that it is clear from the review how the results have been selected, including the results that have been omitted so that the readers can comprehend how the author arrived at his conclusions.

When the author of a review has selected relevant research results, the results will be analyzed and conclusion for evidence will be made. If it's possible, is preferred to have so-called quantitative systematic reviews or Meta-analyzes, based on a statistical analysis of the available results. The deliverables value depends on the quality of systematic review/meta-analysis. There are check-lists of quality criteria for systematic reviews Meta-analyzes that can help to assess the credibility of the results of a review.

### **Evidence on links**

There are several medical databases based on recognized scientific studies. One of the most famous is the Cochrane Library. The Cochrane Library contains articles on conventional therapy.

Approximately 5-10% of the CAM addresses treatment. Many of the reviews conclude that research in CAM is too limited and of a quality that hampers the ability to say something about evidence.

Evidence is however not Cochrane reviews, only!

Information regarding reflexology research can be searched ex on. [www.pubmed.com](http://www.pubmed.com) & [www.sciencedirect.com](http://www.sciencedirect.com)

Pay attention to what keywords you use. "Reflexology" is also called "Zonotherapy" - "Foot massage" etc.. Depending on how the authors have described the study and determines how the articles are stored in the database.

**Migraine project:** A portal which is also interesting to look at is [www.nafkam.no](http://www.nafkam.no), "Register for exceptional case stories". It's on this webpage you'll find information about the "Migraine project", a co-operation between reflexology and acupuncture associations in four countries: Denmark, Norway, Sweden and England.

### Your practice:

Taking record of your treatments is a type of research/data collection, this can feed into a commend research project.

#### Here 3 tips:

- 1) Make sure to follow national laws (Data Act, Ethics, Marketing, etc.)
- 2) Make sure to get the patient's written acceptance to record personal information (name, phone number, health problem, etc.) on the consultation sheet.
- 3) Register and evaluate treatment, expectations and outcomes with patient

#### Facts about research methods:

**Systematic review:** See information in the article.

**Randomized clinical trials:** patients with specified characteristics divided, by lot, in two or more groups and treated in different ways (treatment with two or more treatment interventions).

**Cohort study:** Investigation of a group of people with common characteristics. For example, a disease, that will be followed over time to uncover people's development (growth / recurrence of disease).

**Cross-sectional Study:** Investigation of whether there is a correlation between, for example. diet, obesity and disease in a group of people.

**Case-Study Report:** Study of a few patients' treatment and / or illness as a possible, subsequent to implement a pilot or efficacy studies.

Leila Eriksen

#### References:

1) "Circular INSTEAD of Hierarchical: Methodological Principles for the evaluation of complex interventions" by Harald Walach, Torkel Falkenberg, Vinjar Fønnebo, George Lewith, Wayne B Jonas. BMC Medical Research Methodology 2006, 6:29. The article is available from: <http://www.biomedcentral.com/147-228/6/29>. An open access article, which permits unrestricted use, distribution, and reproduction in any medium, provides the original work is properly cited.