

The other point, very interesting especially for practitioners, if different acupuncture styles matter. This is one of the big discussions you have with your colleagues. It's one of the big issues when you teach acupuncture. And there are three studies out, and the results are not very convincing. The study from China, recently published in the Canadian medical journal—the study compared sham acupuncture with three acupuncture arms. And one of the acupuncture arms was seen as much more effective for treating migraines, these type of acupuncture points. So we found for most secondary outcomes here, we did the data analysis for the colleagues in China. We found a significant difference for most secondary outcomes between acupuncture and sham acupuncture. We found no relevant differences at all between the different acupuncture arms.

And this is supported by the work of Dan Cherkin and Karen Sherman, who compared standardized and individualized acupuncture in chronic low back pain, and there have been no differences. And I've just got the result from one of our smaller trials, we randomized 150 patients with low back pain to standardized and individualized acupuncture and also here we see no significant differences. So the style does not seem to matter so much.

But what does really influence the results of acupuncture? And I'm not such a country fan, but here we really get differences in different countries. So we have analyzed data on 10,000 patients with chronic pain, randomized patients—half of them got acupuncture on top of usual care—and we found women had a better effect than men. That those patients who had a failure of other therapies, or who had a very positive previous acupuncture experience, had a better effect.

And we did an analysis on another data set, was 800 patients who got acupuncture or sham acupuncture and we found that those patients who had a higher expectation had a better acupuncture effect. And the odds ratio for this was 2.0 so it was not a small difference, it was a relevant difference.

Nevertheless the results from the States are different. So this is an analysis from the trial of Cherkin and Sherman, and they have found no impact of expectation and preferences on the acupuncture treatment outcome. And the point is also do we really measure expectation, how we measure expectation, and I know there's a NIH grant on really a development of a more stable measure and Karen Sherman and Sherry Redinbaugh are working on this. But you see it's very heterogeneous if it comes to the effect modification on the patient side.

So what we have also an interest in is the characteristics of the practitioner and how those influence the outcome. And that's again data from the large German data set with the 10,000 patients. And this was a quite frustrating result for me because I hadn't expected this. We found that the training, which is the duration of training, which is even if they do a Chinese diagnosis or not, and also not the experience or the years in practice and the percentage of practice. They had no influence on the treatment outcome. The only factor which we found had an influence on the treatment outcome was that orthopedists performed worse. And I leave it to your thoughts to explain this.

We have just done a new analysis on this data set, and we found that also the expectation of the physicians had no influence on the treatment outcome. And to get this heterogeneous picture here remember also to the point that at the moment we don't know which type of patients really respond

well to placebo. That's also still an open question and now again having the feeling that non-specific effects are a large part of the acupuncture effect, this might really be affected also by this problem.

Coming to patient practitioner interaction... And you have seen the slide also yesterday by Irving Kirsch, and it's one of my most beloved study of all. It was already published 2008 and I still find that it's a brilliant study which tells us a good story. And as you can see those patients who had more prominent interaction with their practitioner had a much better outcome. And I think this can also teach us something for future research, that we really should know more about the interaction and how different interaction styles influence the outcome.