The impact of patient expectations on outcomes in four randomized controlled trials of acupuncture in patients with chronic pain.


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In a pooled analysis of four randomized controlled trials of acupuncture in patients with migraine, tension-type headache, chronic low back pain, and osteoarthritis of the knee we investigated the influence of expectations on clinical outcome. The 864 patients included in the analysis received either 12 sessions of acupuncture or minimal (i.e. sham) acupuncture (superficial needling of non-acupuncture points) over an 8 week period. Patients were asked at baseline whether they considered acupuncture to be an effective therapy in general and what they personally expected from the treatment. After three acupuncture sessions patients were asked how confident they were that they would benefit from the treatment strategy they were receiving. Patients were classified as responders if the respective main outcome measure improved by at least fifty percent. Both univariate and multivariate analyses adjusted for potential confounders (such as condition, intervention group, age, sex, duration of complaints, etc.) consistently showed a significant influence of attitudes and expectations on outcome. After completion of treatment, the odds ratio for response between patients considering acupuncture an effective or highly effective therapy and patients who were more sceptical was 1.67 (95% confidence interval 1.20-2.32). For personal expectations and confidence after the third session, odds ratios were 2.03 (1.26-3.26) and 2.35 (1.68-3.30), respectively. Results from the 6-month follow-up were similar. In conclusion, in our trials a significant association was shown between better improvement and higher outcome expectations.