**Selected by
Dieter Melchart
München**

Latest Publications You Should Not Miss

Pfab F, Huss-Marp J, Gatti A, Fuqin J, Athanasiadis GI, Irnich D, Raap U, Schober W, Behrendt H, Ring J, Darsow U: Influence of acupuncture on type I hypersensitivity itch and the wheal and flare response in adults with atopic eczema – a blinded, randomized, placebo-controlled, crossover trial. *Allergy* 2010;65: 903–910.

Background: Itch is a major symptom of allergic skin disease. Acupuncture has been shown to exhibit a significant effect on histamine-induced itch in healthy volunteers. We investigated the effect of acupuncture on type I hypersensitivity itch and skin reaction in a double-blind, randomized, placebo-controlled, crossover trial.

Methods: An allergen stimulus (house dust mite or grass pollen skin prick) was applied to 30 patients with atopic eczema before (direct effect) and after (preventive effect) two experimental approaches or control observation: acupuncture at points Quchi and Xuehai [verum acupuncture (VA), dominant side], ‘placebo-point’ acupuncture (PA, dominant side), no acupuncture (NA). Itch intensity was recorded on a visual analogue scale. After 10 min, wheal and flare size and skin perfusion (via LASER-Doppler) were measured at the stimulus site, and the validated Eppendorf Itch Questionnaire (EIQ) was answered.

Results: Mean itch intensity was significantly lower in VA (35.7 ± 6.4) compared to NA (45.9 ± 7.8) and PA (40.4 ± 5.8) regarding the direct effect; and significantly lower in VA (34.3 ± 7.1) and PA (37.8 ± 5.6) compared to NA (44.6 ± 6.2) regarding the preventive effect. In the preventive approach, mean wheal and flare size were significantly smaller in VA ($0.38 \pm 0.12 \text{ cm}^2/8.1 \pm 2.0 \text{ cm}^2$) compared to PA ($0.54 \pm 0.13 \text{ cm}^2/13.5 \pm 2.8 \text{ cm}^2$) and NA ($0.73 \pm 0.28 \text{ cm}^2/15.1 \pm 4.1 \text{ cm}^2$), and mean perfusion in VA (72.4 ± 10.7) compared to NA (84.1 ± 10.7). Mean EIQ ratings were significantly lower in VA compared to NA and PA in the treatment approach; and significantly lower in VA and PA compared to NA in the preventive approach.

Conclusions: Acupuncture at the correct points showed a significant reduction in type I hypersensitivity itch in patients with atopic eczema. With time the preventive point-specific effect diminished with regard to subjective itch sensation, whereas it increased in suppressing skin-prick reactions.

Webb TL, Joseph J, Yardley L, Michie S: Using the Internet to promote health behavior change: a systematic review and meta-analysis of the impact of theoretical basis, use of behavior change techniques, and mode of delivery on efficacy. *J Med Internet Res* 2010;12(1):e4, doi:10.2196/jmir.1376.

Background: The Internet is increasingly used as a medium for the delivery of interventions designed to promote health behavior change. However, reviews of these interventions to date have not systematically identified intervention characteristics and linked these to effectiveness.

Objectives: The present review sought to capitalize on recently published coding frames for assessing use of theory and behavior change techniques to investigate which characteristics of Internet-based interventions best promote health behavior change. In addition, we wanted to develop a novel coding scheme for assessing mode of delivery in Internet-based interventions and also to link different modes to effect sizes.

Methods: We conducted a computerized search of the databases indexed by ISI Web of Knowledge (including BIOSIS Previews and Medline) between 2000 and 2008. Studies were included if (1) the primary components of the intervention were delivered via the Internet, (2) participants were randomly assigned to conditions, and (3) a measure of behavior related to health was taken after the intervention.

Results: We found 85 studies that satisfied the inclusion criteria, providing a total sample size of 43,236 participants. On average, interventions had a statistically small but significant effect on health-related behavior ($d+ = 0.16$, 95% CI 0.09 to 0.23). More extensive use of theory was associated with increases in effect size ($P = 0.049$), and, in particular, interventions based on the theory of planned behavior tended to have substantial effects on behavior ($d+ = 0.36$, 95% CI 0.15 to 0.56). Interventions that incorporated more behavior change techniques also tended to have larger effects compared to interventions that incorporated fewer techniques ($P < 0.001$). Finally, the effectiveness of Internet-based interventions was enhanced by the use of additional methods of communicating with participants, especially the use of short message service (SMS), or text, messages.

Conclusions: The review provides a framework for the development of a science of Internet-based interventions, and our findings provide a rationale for investing in more intensive theory-based interventions that incorporate multiple behavior change techniques and modes of delivery.

Barton DL, Soori GS, Bauer BA, Sloan JA, Johnson PA, Figueras C, Duane S, Mattar B, Liu H, Atherton PJ, Christensen B, Loprinzi CL: Pilot study of *Panax quinquefolius* (American ginseng) to improve cancer-related fatigue: a randomized, double-blind, dose-finding evaluation: NCCTG trial N03CA. Support Care Cancer 2010;18:179–187.

Purpose: This pilot trial sought to investigate whether any of three doses of American ginseng (*Panax quinquefolius*) might help cancer-related fatigue. A secondary aim was to evaluate toxicity.

Methods: Eligible adults with cancer were randomized in a double-blind manner, to receive American ginseng in doses of 750, 1,000, or 2,000 mg/day or placebo given in twice daily dosing over 8 weeks. Outcome measures included the Brief Fatigue Inventory, vitality subscale of the Medical Outcome Scale Short Form-36 (SF-36), and the Global Impression of Benefit Scale at 4 and 8 weeks.

Results: Two hundred ninety patients were accrued to this trial. Non-significant trends for all outcomes were seen in favor of the 1,000- and 2,000-mg/day doses of American ginseng. Area under the curve analysis of activity interference from the Brief Fatigue Inventory was 460–467 in the placebo group and 750 mg/day group versus 480–551 in the 1,000- and 2,000-mg/day arms, respectively. Change from baseline in the vitality subscale of the SF-36 was 7.3–7.8 in the placebo and the 750-mg/day arm, versus 10.5–14.6 in the 1,000- and 2,000-mg/day arms. Over twice as many patients on ginseng perceived a benefit and were satisfied with treatment over those on placebo. There were no significant differences in any measured toxicities between any of the arms.

Conclusion: There appears to be some activity and tolerable toxicity at 1,000–2,000 mg/day doses of American ginseng with regard to cancer-related fatigue. Thus, further study of American ginseng is warranted.

Cao H, Liu JP, Lewith GT: Traditional Chinese medicine for treatment of fibromyalgia: a systematic review of randomized controlled trials. J Altern Complement Med 2010;16(4):397–409.

Background: Traditional Chinese Medicine (TCM) is popular for treatment of fibromyalgia (FM) although there is a lack of comprehensive evaluation of current clinical evidence for TCM's therapeutic effect and safety.

Objective: To review systematically the beneficial and harmful effects of TCM therapies for FM.

Methods: We searched six English and Chinese electronic databases for randomized clinical trials (RCTs) on TCM for treatment of FM. Two authors extracted data and assessed the trial quality independently. Rev-Man 5 software was used for data analyses with an effect estimate presented as mean difference (MD) with a 95% confidence interval (CI).

Results: Twenty-five RCTs were identified with 1,516 participants for this review. Seven trials (28%) were evaluated as having a low risk of bias and the remaining trials were identified as being unclear or having a high risk of bias. Overall, ten trials were eligible for the meta-analysis, and data from remaining 15 trials were synthesized qualitatively. Acupuncture reduced the number of tender points (MD, –3.21; 95% CI –4.23 to –2.11; $p < 0.00001$, $I^2 = 0\%$), and pain scores compared with conventional medications (MD, –1.78; 95% CI, –2.24 to –1.32; $p < 0.00001$; $I^2 = 0\%$). Acupuncture showed no significant effect, with a random-effect model, compared with sham acupuncture (MD, –0.55; 95% CI, –1.35–0.24; $p = 0.17$; $I^2 = 69\%$), on pain reduction. A combination of acupuncture and cupping therapy was better than conventional medications for reducing pain (MD, –1.66; 95% CI, –2.14 to –1.19; $p < 0.00001$; $I^2 = 0\%$), and for improving depression scores with related to FM (MD, –4.92; 95% CI, –6.49 to –3.34; $p < 0.00001$; $I^2 = 32\%$). Other individual trials demonstrated positive effects of Chinese herbal medicine on pain reduction compared with conventional medications. There were no serious adverse effects reported that were related to TCM therapies in these trials.

Conclusions: TCM therapies appear to be effective for treating FM. However, further large, rigorously designed trials are warranted because of insufficient methodological rigor in the included trials.

Wang C, Bannuru R, Ramel J, Kupelnick B, Scott T, Schmid CH: Tai Chi on psychological well-being: systematic review and meta-analysis. BMC Complement Altern Med 2010;10:23.

Background: Physical activity and exercise appear to improve psychological health. However, the quantitative effects of Tai Chi on psychological well-being have rarely been examined. We systematically reviewed the effects of Tai Chi on stress, anxiety, depression and mood disturbance in eastern and western populations.

Methods: Eight English and 3 Chinese databases were searched through March 2009. Randomized controlled trials, non-randomized controlled studies and observational studies reporting at least 1 psychological health outcome were examined. Data were extracted and verified by 2 reviewers. The randomized trials in each subcategory of health outcomes were meta-analyzed using a random-effects model. The quality of each study was assessed.

Results: Forty studies totaling 3,817 subjects were identified. Approximately 29 psychological measurements were assessed. Twenty-one of 33 randomized and nonrandomized trials reported that 1 hour to 1 year of regular Tai Chi significantly increased psychological well-being including reduction of stress (effect size [ES], 0.66; 95% confidence interval [CI], 0.23 to 1.09), anxiety (ES, 0.66; 95% CI, 0.29 to 1.03), and depression (ES, 0.56; 95% CI, 0.31 to 0.80), and enhanced mood (ES, 0.45; 95% CI, 0.20 to 0.69) in community-dwelling healthy participants and in patients with chronic conditions. Seven observational studies with relatively large sample sizes reinforced the beneficial association between Tai Chi practice and psychological health.

Conclusions: Tai Chi appears to be associated with improvements in psychological well-being including reduced stress, anxiety, depression and mood disturbance, and increased self-esteem. Definitive conclusions were limited due to variation in designs, comparisons, heterogeneous outcomes and inadequate controls. High-quality, well-controlled, longer randomized trials are needed to better inform clinical decisions.