

Letters to the Editor

Evidence Lacking That Acupuncture Is More Effective Than Placebo

Original Article: Acupuncture for Pain

Issue Date: July 15, 2019

See additional reader comments at: <https://www.aafp.org/afp/2019/0715/p89.html>

To the Editor: This article does not meet *American Family Physician's* standard of rigorously evidence-based continuing medical education. The authors acknowledge the difficulties of performing good research on acupuncture, but then cite demonstrably low-quality studies in which acupuncture is compared with usual care or no care (a wait-list group) or another treatment is compared with the same treatment plus acupuncture (A vs. A+B). Such studies are likely to make acupuncture appear more effective than it really is. In the Strength-of-Recommendation Taxonomy (SORT) table, they give undeserved "A" evidence ratings to these types of studies, which were also not consistent with other studies.

Two crucial studies are missing from their discussion. First, a cogently reasoned and extensively referenced analysis pointed out flaws and inconsistencies in the research and concluded that "the benefits of acupuncture are likely nonexistent, or at best are too small and too transient to be of any clinical significance. It seems that acupuncture is little or no more than a theatrical placebo."¹ Second, a systematic review of 57 systematic reviews of acupuncture for pain found that there were only four conditions for which more than one systematic review reached the same conclusion: they agreed that it did not work

in three cases and that it did work in only one case (for neck pain).² If the research on a pain pill showed that it worked for neck pain but not for pain elsewhere in the body, we would conclude that it does not work and that the neck pain studies represent false positives.

The final section of the *American Family Physician* article correctly identifies acupuncture as a placebo but still recommends its use. There is no justification for the use of placebos outside the setting of clinical trials.³ Prescribing placebos involves deception and precludes informed consent.

Additionally, there have been at least 95 published reports of serious complications of acupuncture, including five deaths.² The risks are admittedly small, but no risk is acceptable for a placebo treatment.

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In Reply: I agree with Dr. Hall that acupuncture has a large placebo response, as we emphasized in our article. This effect is not unique to acupuncture and, in fact, the degree to which meaning and context contribute to overall therapeutic responses is probably underestimated for many commonly used medical and surgical interventions.¹

An obviously important question is whether there are acupuncture effects that exceed meaning and context effects. We were careful to answer this question as accurately as possible using available evidence from meta-analyses and systematic reviews, many of which were published more recently than those cited by Dr. Hall. We provided quantitative outcome comparisons so that readers can draw their own conclusions regarding the clinical importance of the differences between verum and sham acupuncture

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or between acupuncture and other available treatments.

Our SORT table indicated an evidence rating of A for clinical recommendations for which there are consistent findings from multiple systematic reviews of randomized controlled trials, and a rating of B when the evidence for a clinical recommendation is inconsistent or limited-quality. From a safety perspective, there have been rare instances of serious adverse effects of acupuncture, despite a very good record overall. The reference Dr. Hall cites in this regard proposed that many of these uncommon but serious complications are not intrinsic to acupuncture but rather are caused by malpractice of acupuncturists, and recommends that all acupuncturists receive adequate training to reduce risk of complications.² I agree with this recommendation.

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Acupuncture Not Supported By Strong Scientific Evidence

Original Article: Acupuncture for Pain; and Integrating Medical Acupuncture into Family Medicine Practice [Editorial]

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See additional reader comments at: <https://www.aafp.org/afp/2019/0715/p89.html>; and <https://www.aafp.org/afp/2019/0715/p76.html>

To the Editor: I am writing in regard to this article and its accompanying editorial. Both advocate for the use of acupuncture in family practice and training of physicians based on weak evidence. The authors of the editorial anecdotally report they have seen skeptical physicians change their minds about acupuncture during training.

Seeking to validate their beliefs, proponents of acupuncture tend to cherry-pick the weak but positive studies and ignore the negative ones. However, larger blinded studies show no significant difference in pain relief from acupuncture compared with sham acupuncture.¹⁻³

The article states, “Traditionally, acupuncture is thought to restore the normal flow of energy (qi) in the body.” This is typical of pseudoscientific jargon based on the belief in mystical, unmeasurable “vital energies” akin to the “psora” of homeopathy or the “life force energy” of chiropractic. They also state that acupuncture is safe, ignoring incidents of pneumothorax and infection.⁴⁻⁶

Acupuncture is therefore based on weak scientific evidence; claims of ancient knowledge; unproven, invisible forces; and anecdotes, and only works when sold to the patient with reassuring words and hand-holding. What our patients are actually looking for is someone who will take the time to listen to them, establish trust, and show empathy. When we fall back on smoke and mirrors just to “do something,” we betray that trust.

Let’s not go back to the days of bloodletting and phrenology. You can do better than this, *American Family Physician*.

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In Reply: Rather than cherry-picking positive studies and ignoring negative ones, we restricted our evidence review to meta-analyses and systematic reviews of multiple randomized controlled trials. Our quantitative outcome comparisons and Strength of Recommendation Taxonomy (SORT) table provided the reader with information on the size of treatment effects and the strength of the evidence for clinical recommendations. We also ►

specifically mentioned the possibility of pneumothorax and serious infection as rare adverse effects of acupuncture, despite its very good safety record overall. I agree with Dr. Kann that patients appreciate a physician who listens and establishes trust, although this goal in no way excludes considering and proposing the option of a trial of acupuncture for selected patients with painful conditions.

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In Reply: Thank you for the questions about evidence-based practice and how we investigate clinical questions with multimethods work. Like research on any procedure, acupuncture research is limited by the inability to perform completely blinded placebo procedures. New procedures for appendectomy or laceration repair are not evaluated against placebo treatment—they are evaluated against the standard of care. Although considerable effort has been expended to create placebo acupuncture devices, savvy patients are still able to tell the difference; therefore, expecting double-blind placebo in acupuncture research is typically unreasonable. Researchers should attempt to blind the evaluator (i.e., the person asking about pain or administering questionnaires) because neither patients nor treating physicians can be blinded to the treatment.

Placebo acupuncture has up to a 41% effectiveness rate,¹ which is possibly attributable to what Dr. Kann calls “reassuring words and hand-holding.” This placebo response is comparable with drug trials in which patients assigned to placebo groups also experience positive treatment outcomes.² Still, studies demonstrate true acupuncture is superior to sham or placebo acupuncture.¹

The editorial we wrote is derived from a rigorous program of qualitative research that we conducted with physicians who practice acupuncture and patients who have received the treatment.³⁻⁵ Rather than anecdotes, which are stories that stand alone to make a point, these findings are based on empiric, qualitative research. Specifically, our research draws from semistructured

interviews that capture both patients’ and physicians’ experiences. “Within the context of a qualitative research project, an anecdote does not exist.”⁶ Quotes presented in the study are data and provide exemplar representations of phenomena identified across participants, thereby indicating a pattern of experience, as opposed to a single case, as one might see in a news article portraying one person’s story. The scientific articles presenting this research included patients describing benefits of receiving acupuncture, as well as patients not experiencing benefits.

We agree that listening and creating trust are key elements of being a physician. Not only was the role of communication a key finding in our work, but patients and physicians reported that acupuncture helped cultivate a more open, trusting clinical relationship.⁴

The authors thank Carla Fisher, PhD, our qualitative research expert, who reviewed an early draft of this letter reply and recommended content changes and improvements.

The opinions and assertions contained herein are the private views of the authors and are not to be construed as official or as reflecting the views of the U.S. Air Force, the Uniformed Services University of the Health Sciences, or the Department of Defense at large.

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