

## OBSERVATIONS

## MEDICINE AND THE MEDIA

## Press repeats journal's hype over acupuncture

The *British Journal of General Practice* overstated a recent study's findings about use of the alternative treatment in patients with unexplained symptoms, and the UK media repeated these flawed claims, notes **Margaret McCartney**

Margaret McCartney *general practitioner, Glasgow*

The new look *British Journal of General Practice* used big cover-page text last month to announce one study. "ACUPUNCTURE effective in a randomised trial for patients with unexplained symptoms," it shouted in bright yellow, exciting a febrile press further by telling them that acupuncture "showed an improvement in health status and wellbeing that was sustained for 12 months." The paper was kept behind subscription gates, and even the abstract was unavailable on PubMed at the time of writing.

The press lapped it up. The *Daily Telegraph* said that "acupuncture has significant impact on mystery illnesses" and quoted one patient as saying, "The energy is the main thing I have noticed. You know, yeah, it's marvellous!"<sup>1</sup> The *Mirror* agreed, saying, "A study of 80 people suffering aches and pains for which GPs could find no explanation, found they felt significantly better after 26 weeks of the therapy. It gave them a surge of energy and some were well enough to cut medication."<sup>2</sup> The story was also picked up by some independent acupuncturists, who cited the study on their commercial websites as proof of efficacy. If publicity was the aim, the journal scored.

But then came the web. The satirical website the *Daily Mash* was one of the first to lampoon the journal, retorting, "Made-up medicine works on made-up illnesses."<sup>3</sup> Indeed, the study was not as clear about the benefits of acupuncture as the press reports or press release claimed. Eighty people described as having "medically unexplained physical symptoms" were randomised to a usual care group or a "five element acupuncture" group (where the "elements" are fire, earth, metal, water, and wood). This group had 12 sessions of acupuncture over 26 weeks. There was no sham acupuncture group, which is a big problem, because sham acupuncture has been found to be as effective as "real" acupuncture.<sup>4 5 6</sup> Failing to control for this means that we don't know whether sham acupuncture would have been as effective.

The study's non-blinded nature is also problematic. And because the patients filled out self assessment questionnaires rather than being assessed functionally, the study has to be considered at high risk of bias. Crucially, however, the full statistical analysis

had been pushed out of the paper edition and placed on the web, but only for subscribers or those with a spare \$30. This contains graphical information about the outcome measures. The first measure, the "measure yourself medical outcome profile," is a self administered questionnaire used mainly in alternative medicine. The others were the "wellbeing questionnaire," the "EuroQol-5D," the "patient enablement instrument," and the "medication change questionnaire." There were no blinded functional assessments.

The graphical information behind the paywall showed the difference between the scores in the two groups over time. These were almost identical. The "measure yourself medical outcome profile" and EuroQol-5D scores showed a marginal increase in the acupuncture groups, which is of uncertain clinical significance. The "wellbeing score" was better in the control group than in the acupuncture group, and the rate of consultations in general practice was higher in the acupuncture group.<sup>7</sup> Hardly a clear incitement to acupuncture.

So why the press release at all? In it the *British Journal of General Practice* editor, Roger Jones, said, "Although there are countless reports of the benefits of acupuncture for a range of medical problems, there have been very few well-conducted, randomised controlled trials. Charlotte Paterson's work considerably strengthens the evidence base for using acupuncture to help patients who are troubled by symptoms that we find difficult both to diagnose and to treat."<sup>8</sup> Yet there were many problems with the trial, mainly that it wasn't blinded and did not account for the widely accepted "sham" effect.

Patients with symptoms that are difficult to treat get false hope from stories like this: I can't have been the only general practitioner who has recently been asked for a recommendation for an acupuncturist. Who knows how many people have used their resources on an overhyped intervention? And how are they to know the full story?

The *British Journal of General Practice* has yet to publish any replies, including mine, to the paper, either online or in print. The journal has no criticism of the paper on its website. Instead, on the wider web, on Northern Doctor's Antidote (<http://>

northerndoctor.com), the general practitioner Euan Lawson, wrote, "Many GPs will have read no further than the headline on the cover. Overall, a vast number of people have been ill-informed."

The pharmacologist David Colquhoun, on his website DC's Improbable Science ([www.dcscience.net](http://www.dcscience.net)), said, "This paper, though designed to be susceptible to almost every form of bias, shows staggeringly small effects. It is the best evidence I've ever seen that not only are needles ineffective, but that placebo effects, if they are there at all, are trivial in size and have no useful benefit to the patient in this case."

The Quackometer ([www.quackometer.net](http://www.quackometer.net)) said, "Even a cursory glance at the data in the paper shows quite clearly that patients received no significant benefit from acupuncture against a control group." We can't blame journalists for stories that are overhyped: deflation of researchers' claims is a necessarily vital editorial role. If we don't get this right, we risk wasting resources, creating false hope, and dooming peer review to be done better online.

Provenance and peer review: Commissioned; not externally peer reviewed.

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- 2 Acupuncture boosts the long-term sick where conventional medicine fails, study claims. *Daily Mirror* 2011 May 5. [www.mirror.co.uk/news/top-stories/2011/05/30/acupuncture-boosts-the-long-term-sick-where-conventional-medicine-fails-study-claims-115875-23166074/](http://www.mirror.co.uk/news/top-stories/2011/05/30/acupuncture-boosts-the-long-term-sick-where-conventional-medicine-fails-study-claims-115875-23166074/).
- 3 Made-up medicine works on made-up illnesses. *Daily Mash* 2011 May 31. [www.thedailymash.co.uk/news/health/made%11up-medicine-works-on-made%11up-illnesses-201105313882/](http://www.thedailymash.co.uk/news/health/made%11up-medicine-works-on-made%11up-illnesses-201105313882/).
- 4 Assefi NP, Sherman KJ, Jacobsen C, Goldberg J, Smith WR, Buchwald D. A randomized clinical trial of acupuncture compared with sham acupuncture in fibromyalgia. *Ann Intern Med* 2005;143:10-9.
- 5 Moffet HH. Sham acupuncture may be as efficacious as true acupuncture: a systematic review of clinical trials. *J Altern Complement Med* 2009;15:213-6.
- 6 Tulder MW VA, Cherkov DC, Berman B, Lao L, Koes BW. Acupuncture for low back pain. *Cochrane Database Syst Rev* 2000;2:CD001351.
- 7 Paterson C, Taylor R, Griffiths P, Britten N, Rugg S, Bridges J, et al. Acupuncture for "frequent attenders" with medically unexplained symptoms: a randomised controlled trial (CACTUS study). *Br J Gen Pract* 2011;61:e295-305.
- 8 GPs look at possible benefits of acupuncture for "frequent attenders." Press release. Royal College of General Practitioners, 2011. [www.rcgp.org.uk/news/press\\_releases\\_and\\_statements/acupuncture\\_frequent\\_attenders.aspx](http://www.rcgp.org.uk/news/press_releases_and_statements/acupuncture_frequent_attenders.aspx).

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