


Kerry Hampton and Danielle Mazza
Primary Care Research, Faculty of Medicine, Nursing and Health Sciences, Monash University, Australia

1Correspondence address. E-mail: danielle.mazza@med.monash.edu.au
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RCT of real versus placebo acupuncture

Sir,
I read the letter titled ‘RCT of real versus placebo acupuncture in IVF’ by Renckens, in which he regards acupuncture as a type of placebo therapy. I think it is too early to make the final conclusion, because whether the effectiveness of acupuncture is completely the result of placebo needs more studies.

Up to now, many RCTs and systemic reviews have confirmed that acupuncture is effective in the treatment of pain (Linde et al., 2009a, b), post-operative nausea and vomiting (Lee and Fan, 2009), but many RCTs failed to investigate whether placebo effect plays a big role in acupuncture due to trial design. As an interventional method, it is difficult to perform blindly to patients and clinicians in an acupuncture trial. That means the bias is inevitable, partly due to patients’ expectation. In addition, how to separate the real acupuncture from placebo acupuncture remains undefined. There are two kinds of commonly used placebo acupuncture: minimal acupuncture with shallow needling and non-acupoint puncturing. Both of them have limitations. First, shallow needling is one kind of acupuncture manipulation in traditional Chinese medicine (TCM) theory, and imaging studies have proven each kind of stimulation will produce responses in the brain, no matter how shallow or deep. Secondly, the location of acupoint is not restricted to the 14 meridians; there are extra-points and a-shi point which is also called as pain point in given conditions.

A recent fMRI imaging study (Kong et al., 2009) examines to what extent treatment and expectation effect pain, indicated that although both real acupuncture and sham acupuncture induced subjective reports of analgesia of equal magnitude, fMRI analysis showed that real acupuncture produced a greater fMRI signal decrease in pain-related brain regions.

In conclusion, imaging evidence has been provided that the mechanism of how acupuncture or expectancy evoked placebo works is different. I think that, for the particularity and complexity of acupuncture, further well-designed RCTs are needed to investigate the specific effect of acupuncture and give clear answer to whether acupuncture is a type of placebo therapy.

References


Tingting Ma
Acupuncture and Tuina Department, Chengdu University of TCM, Sichuan, China

1Correspondence address. E-mail: matingtingcn@yahoo.com.cn

Evaluation of impact factor using two different methods

Sir,
Impact factor is one of the most important tools in evaluating the quality of science journals. Perhaps, it is the only factor known to most researchers today and it has been used by many individuals and institutions. For instance, authors prefer to publish in high impact journals, editors make effort to increase the journal’s impact factor and academic institutions take impact factors into consideration for hiring, promotion or financial incentives. In addition, granting agencies use it to evaluate the quality of applicant’s publications, and governments rank academic institutions based on impact factors.

Thomson Reuters, the owner of the Institute of Scientific Information (ISI), a company specialized in producing various research analysis tools, produces impact factors of numerous journals. ISI
generates Journal Citation Reports (JCR), a database containing information about journals including the number of articles and reviews, and impact factors.

Impact factor is calculated using a predefined formula. For example, impact factor for the year 2000 is calculated based on the number of citations to 1998 articles in the year 2000 (A), the number of citations to 1999 articles in the year 2000 (B), the number of articles published in the year 1998 (C) and the number of articles published in the year 1999 (D). Impact factor for 2000 is therefore \((\frac{A+B}{C+D})\).

In recent years, more tools have been developed to allow researchers to analyze citation indices for various journals. Among those tools is Scopus (2009) citation database produced by Elsevier which is a large citations and publications database. It has various analytical tools including citation tracker and information about individual articles. Using the information provided by Scopus, one can calculate impact factor of any journal including Human Reproduction.

In general, Human Reproduction publishes (or has published in the past) original articles, reviews, letters, editorials, notes, conference papers and short surveys. In JCR, impact factor is calculated based on citations to research articles and reviews. Using the same type of articles, we calculated impact factors of Human Reproduction for the years 2000–2006 with Scopus database, and we compared the results with those obtained from JCR.

We found discrepancies in the number of articles and review articles produced by JCR and Scopus (data not shown). The impact factors reported by JCR are also consistently lower than those using Scopus database (Fig. 1). It is unclear which articles were used by JCR to calculate the impact factor. Indeed, a few authors have suggested that these articles should be listed on JCR website (Rossner et al., 2008). Similarly, Scopus could not disclose their exact method of data collection of the number of articles for any journal (personal communication). Identification of articles used for impact factors would be useful to evaluate whether journals with high impact factor are definitely better than those with lower impact factor.

High quality articles lead to many citations increasing the impact factor. However, ordinary and yet highly controversial articles might also attract a good number of authors to reply or perform a similar study and cite the paper (Rossner et al., 2008). As a result, controversial articles may increase the impact factor of a journal. The number of authors per article and the number of review articles might influence the impact factor as well. It is possible that multi-author articles receive a higher number of self-citations (Sala and Brooks, 2008). Also, review articles tend to be quoted more often than original research papers.

We should consider developing new tools to assess the real impact of scientific journals and differentiate between positive and negative impacts, both of them might lead to an increase in the impact factor of a journal.

**References**


Fady Shehata¹ and Togas Tulandi
Department of Obstetrics and Gynecology, McGill University, Montreal, Canada H3A 1A1

¹Correspondence address. Fax: +1-514-843-1496; E-mail: fady.shehata@mail.mcgill.ca
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