

Beware the danger of applying double standards to complementary medicine

In this seventh article in a series on complementary medicine, **Edzard Ernst** tells us why we need to apply the same level of objectivity to complementary medicine as we do to conventional medicine

A few years ago, I attended a meeting in Philadelphia where several editors of the most prestigious medical journals were discussing an intriguing question: do we apply double standards when dealing with complementary medicine? I remember the editor of the renowned *New England Journal of Medicine* denying any such practice. But the then editor of *JAMA* bravely stood up and said: "I don't know what you mean. Double standards? We apply not double, but quadruple standards. Nobody ever said life was fair!"

His honesty surprised everyone, but his words certainly rang true. When dealing with complementary medicine many people seem to create their own standards only to change them opportunistically as the situation requires. A bold statement, and I better provide some evidence to back it up.

How clinical trials are treated

We once conducted an eye-opening experiment.¹ It involved sending out an entirely fictitious report of two versions (A and B) of a clinical trial to a large group of reviewers. We pretended that the report was submitted to a medical journal for publication. One group of reviewers was randomised to receive version A while the others got version B.

The only difference between A and B was that a homeopathic remedy had been "tested" in one while a conventional treatment had been investigated in the other. The recipients of our articles were asked to judge the methodological quality of the trial. The results of our experiment showed that the paper on the homeopathic product was graded considerably lower than that on the conventional product.¹ The only explanation for this striking discrepancy was that our reviewers had applied two different standards to each paper.

This little story could be next to meaningless, if it referred to an isolated glitch in scientific fairness, but double standards are everywhere in complementary medicine. Look at research funding, for instance. Scientific panels evaluating applications from researchers often reject applications from the realm of complementary medicine with the argument that their scientific basis is too flimsy. In some instances, this may sometimes be perfectly correct. But not granting research funds, of course, prevents the scientific basis from becoming more solid. One of our surveys shows that UK medical charities spend 0.31 per cent on research in complementary medicine and the other 99.69 per

cent on research in conventional medicine.² Is this not a catch-22 situation? And does it not suggest that double standards exist?

Other side of the coin

Naturally, applying double standards cut both ways, and those from the world of complementary medicine can be as guilty of this as those in orthodox medicine. Three examples might explain what I mean. The manufacturers of Bach Flower Remedies once stated in a newsletter that "to instigate research would be a backwards step".³ The text continues to explain that the worldwide popularity of their products is ample proof of effectiveness "which needs no scientific proof to back it up".

Imagine this logic being applied to medicine in general. Drug companies would be allowed to market any drug they want as long as it eventually becomes popular — a nightmare scenario. One problem with thalidomide was precisely its popularity.

My second example is perhaps even more astonishing: the former chairman of the NHS Alliance seems to be a GP on a mission to promote complementary medicine. While still in office, he stated: "What I have heard from patients and seen myself is quite sufficient evidence for me and them that chiropractic is effective, safe and cost effective."⁴ Imagine this standard being adopted as a general principle in medicine. We could suspend all medical research and simply listen to the judgement of our GPs. The mind boggles.

My final example is the results of a study we performed. We evaluated the articles published in journals of complementary medicine. Specifically we wanted to find out whether such journals publish negative findings. The results were staggering: all of these



journals published practically nothing but positive results.⁵ This type of publication bias is probably due to double standards: editors of these journals seem to have a strong preference for "good news" articles while rejecting anything that is remotely critical.

Conclusion

The ubiquity of double standards in complementary medicine is worrying and hugely counter-productive. In my unit, we research complementary medicine in the best way we can. This includes bending over backwards to avoid double standards. I firmly believe that this is the right approach. In any type of medicine, double standards pose a risk to the health and well-being of all of us.

References

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