

Alternative Medicine is a Useful Concept

Harri Hemilä

Department of Public Health,
University of Helsinki, Finland

harri.hemila@helsinki.fi

<http://www.mv.helsinki.fi/home/hemila>

Comment on:

There is no alternative medicine

Louhiala P.

Med Humanit. 2010 Dec;36(2):115-7.

<http://dx.doi.org/10.1136/jmh.2010.004358>

<http://www.ncbi.nlm.nih.gov/pubmed/21393295>

This comment was published in **Medical Humanities:**

Hemilä H.

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[Published 14 October 2010]

Med Humanit.

<http://dx.doi.org/10.1136/jmh.2010.004358> (see **Responses** section)

<http://mh.bmj.com/content/36/2/115/reply#1> (direct link to the comment)

Pekka Louhiala argues that "there is no alternative medicine" because "it escapes a meaningful definition, and 'alternative medicine' cannot be clearly differentiated from conventional medicine" [1]. I do not consider that his arguments are valid.

Louhiala does not mention the proposed definitions for "alternative medicine". For example, Eisenberg defined alternative medical therapies as "interventions neither taught widely in medical schools nor generally available in US hospitals" [2]. Cochrane collaboration defined: "Complementary and alternative medicine (CAM) is a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period. CAM includes all such practices and ideas self-defined by their users as preventing or treating illness or promoting health and well-being. Boundaries within CAM and between the CAM domain and that of the dominant system are not always sharp or fixed" [3]. I do not consider that these definitions are exhaustive, but they capture what I think is the most essential.

These definitions consider that the relevant factor for setting up the boundary around alternative medicine is by the lack of social acceptance within mainstream medicine. Thus, alternative medicine consists of interventions that are outside of the "conventional" or "medical school" medicine. The definitions above do not consider whether a treatment is effective or not. Effectiveness is located on a different dimension and it is not part of a relevant definition for alternative medicine.

Louhiala formulated numerous arguments that do not teach us anything about the usefulness of the concept of "alternative medicine". Although I agree that in many cases "modern medicine is much more varied in its approaches than the propagandists for alternative medicine usually imply", this statement does not imply any conclusions about the concept of "alternative medicine".

I do not agree with Louhiala's statement that "alternative medicine means that the other option is rejected". For example, many of my own patients describe that they also use some forms of alternative therapies, but they do not reject me therefore. Nevertheless, whatever our opinion on this issue is, that has no importance to the question whether "alternative medicine" is a useful concept.

I disagree also with the statement that "if a genuine alternative medicine did exist, it should produce results that are similar to those of ordinary medicine". There is much treatment variation within mainstream medicine, and thus there is no uniform "treatment result" to which the results of alternative therapists might be compared unambiguously. Furthermore, when we accept the rather large treatment variation within mainstream medicine, why should we not accept variation between mainstream medicine and alternative medicine. In any case, this issue does not seem relevant to the question whether the concept of "alternative medicine" is useful.

I agree with the statement that "alternative medicine cannot be clearly differentiated from conventional medicine". There are numerous cases where the border between neighboring concepts is fuzzy. Internal medicine cannot be clearly differentiated from general practice medicine (e.g. both treat hypertension). Children cannot be clearly differentiated from adults (e.g. teenagers are biologically adults but psychologically children). However, the lack of a clear differentiation does not imply that "internal medicine" or "child" are useless concepts.

Louhiala states that "bundling all the so called alternative therapies under one heading is misleading. It is hard to see common features between, say, healing using prayer and healing using megadoses of vitamins." If alternative medicine is defined by the lack of social acceptance as described above, that provides an unambiguous justification to put prayer and megavitamins under the same heading. Furthermore, there is great variation in the approaches within the mainstream medicine from surgery to pharmacology to psychiatry. If Louhiala's argument is valid, we should not bundle such different methods under the one heading of "medical school medicine".

Louhiala states that "alternative medicine" is a buzzword, which may be true in certain

contexts. However, in mainstream medicine, there are numerous buzzwords. Laser surgery, computed tomography, broad-spectrum antibiotics, and many others are in certain contexts used to "impress laymen", but that has nothing to do whether those methods are useful, or whether those terms are linguistically sound.

While Louhiala criticizes the vague definition of "alternative medicine", he does not consider the definition options for "homeopathy". When I was young, I studied biochemistry and got a PhD degree. At that stage of my life, I defined homeopathy as "diluting a substance to such an extent that there are no molecules left in a spoonful". Thereafter I studied medicine.

When I started to work as a GP, I realized that there is a fundamentally different second definition for homeopathy: "a person goes to a homeopath and stays there for some time and then leaves". If we ask whether homeopathy is beneficial for a patient, we should first define what we mean by "homeopathy", but this was not done by Louhiala.

In catholic countries, sometimes people go to see a priest for a confession. I believe that the confession often decreases the anxiety of a person, and in that respect it leads to positive health effects. This health benefit has nothing to do whether we think that there is evidence for God. Similarly, homeopathy as an encounter can be beneficial for a patient because visiting a homeopath is much more than biochemistry.

While working as a GP, I have realized that a large part of the positive health effects that I am generating on my patients are caused by listening and speaking. Why should we assume that a priest or a homeopath is incompetent at such an activity? I have seen many physicians who are rather poor in their communication with patients. Compared with them, an average priest or homeopath probably generates greater improvements in health if the major problems of the patient are anxiety and depression.

On average, alternative therapists may have better bedside manners than physicians [4]. Time spent with each patient by an alternative medicine practitioner usually exceeds that spent by the average physician. Alternative medicine practitioners provide patients with understanding, meaning, and self-care methods for managing their conditions. These elements are often lost in the subspecialization, technology and economics of mainstream medicine.

Furthermore, even though it is paradoxical, in some cases homeopathy is better pharmacology than some popular treatment options of physicians. If a patient has a viral respiratory infection and a homeopath treats the patient with a highly diluted solution, the product will not cause harm. If the same patient goes to a physician and gets antibiotics, the benefit is non-existent there too, but the harm is not [5,6]. In such a case, it is the homeopath who follows more closely the guidance "first, do no harm."

I have a long lasting interest in the concept of alternative medicine. My personal interest largely arose from my long term research on vitamin C and the common cold, mainly by carrying out systematic reviews from various points of view. In the latest version of our Cochrane review, we pooled the results of 29 placebo-controlled comparisons measuring the effect of regular >0.2 g/day of vitamin C [7]. We found that vitamin C shortened colds in adults by 8% ($P=0.0002$) and in children by 13% ($P=0.0003$). In 5 trials with participants under heavy acute physical stress (3 of them with marathon runners), vitamin C reduced the incidence of colds by 52% (95% CI: 36% to 65%; $P=0.0000006$), but we found strong evidence with a narrow confidence interval that vitamin C does not prevent colds in the general population.

Given that there is such a strong evidence, mostly from trials published already in the 1970s, that vitamin C differs from the placebo, why does vitamin C fall under the heading "alternative medicine"? Textbooks on medicine, infectious diseases, and nutrition have claimed over decades that vitamin C is useless for the common cold [8-10], and systematic bias against vitamins in general has been documented in the major textbooks of medicine [11,12]. In a Dutch survey, 47% of GPs considered that homeopathy is efficacious in the treatment of the common cold, whereas only

20% of the respondents considered that vitamin C was [13]. In a US survey, 21% pediatricians considered that homeopathy may be effective, and 21% considered that high-dose antioxidant vitamins may be so (e.g. vitamin C for the common cold) [14]. Thus, vitamin C is comparable with homeopathy, and in some cases the credibility of vitamin C is even lower.

While I was wondering the puzzling discrepancy between the positive findings in the placebo-controlled trials on vitamin C and the classification of vitamin C under the heading alternative medicine, I started to think that the most relevant way of defining "alternative medicine" is by the lack of social acceptance. This notion was formulated to explicit definitions by other authors [2,3].

Evidence-based medicine emerged because several physicians realized that many treatments taught at the medical school were useless and started to speak about it loud. Thus, when a treatment falls into the category of "medical school medicine", that will not prove that the treatment is effective. My own observations on vitamin C showed that if a treatment falls into the category of "alternative medicine", that will not prove that the treatment is ineffective. Thus, social acceptability and effectiveness are located on different dimensions, and it is the former that is relevant if we search for a reasonable definition for alternative medicine. I consider that in his paper Louhiala ignores the main characteristic that defines alternative medicine [2,3].

At the end of his paper, Louhiala comments that "demand that alternative medicine be taught in medical schools and/or financed through public funding has no foundation whatsoever". I disagree also with this opinion.

Louhiala does not define what he means by teaching. It is possible 1) to teach the practical methods; how to carry out alternative therapies at one's own office or 2) to teach about the most usual types of alternative therapies in a descriptive way, so that a medical student better understands our surrounding society.

If we follow the definitions described at the beginning of this comment, it is logically impossible to teach medical students how to start using alternative therapies, because including a therapy in the medical school curriculum removes the status "not taught at medical schools". The therapy that was "alternative" is not so any more.

On the other hand, I cannot see any basis to oppose the second kind of teaching. The purpose of education should be to increase understanding why patients use alternative medical treatments, learning how to ask about and discuss alternative treatments in a nonjudgmental manner, learning which therapies can be harmful, and understanding the basic tenets of the most common alternative healing systems [15-17].

Furthermore, Louhiala's final comment is illogical. Given that he states that "there is no alternative medicine", how could "alternative medicine" be used as a criterion for not financing some activity - if there is no alternative medicine.

The purpose of my commentary is not to increase the social acceptability of alternative medicine. I point out that the lack of social acceptability seems to be a reasonable basis for defining alternative medicine [2,3], but this was not considered by Louhiala [1]. I do not hope that the use of homeopathy increases, instead I hope much the contrary. Nevertheless, the question about homeopathy is more complex than whether it is absurd from the biochemical point of view.

A Google search with the term "alternative medicine" finds over 10 million web pages and one survey reported that 40% of Americans had used alternative treatments over the preceding year [2]. I think that it is much more fruitful to contemplate on the nature of alternative medicine [3,4,15-22], instead of trying to argue that such a field does not exist [1].

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