

# Beware of Quacks at the WHO

## Objecting to the WHO Draft Report on Homeopathy

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Even though the World Health Organization (WHO) has no international power, it still enjoys great authority all over the world. In the past, its initiatives and resolutions have always been able to bear the test of scientific criticism, based as they were on rational conceptions.<sup>1</sup>

However, the situation has changed. In the 1970s, the WHO lent a too-willing ear to acupuncture. The tide has not exactly turned on this tradition. In May 2002, the report *Traditional Medicine Strategy 2002–2005* was published. Strangely enough, this report also included alternative forms of medicine which are very popular in the West. The man responsible for this strategic report is Dr. Xiaorui Zhang, who is in charge of two WHO departments that—curiously—merged together: the Department of Essential Drugs and Medicine Policy and the Department of Traditional Medicine.

According to a press release, the report presents “the first global strategy on traditional and alternative medicine.” It is a very pro-alternative report, recommending the issuance of rules and government policies with regard to alternative medicine, bypassing, for instance, the usual methods of testing medicine by accepting “assumed safety”

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after sustained use. A substantial part of this report was written by the World Federation of Chiropractic (WFC) and the World Self-Medication Industry (WSMI), which represents manufacturers and distributors of nonprescription medicines—that is, over-the-counter medicines—two organizations that are not exactly known as promoters of evidence-based medicine. Resentment against “Western medicine” is tangible on every page. Countries like China, North and South Korea, and Vietnam are praised as having fully integrated traditional medicine into their health systems. The indigenous flora of such regions are conceived of as rich and so far uncultivated sources of new remedies, from whose supposed benefits only the Third World countries should derive the profits. For example, the South African plant *Sutherlandia microphyllia* is claimed to be a promising medicine that helps increase the weight of AIDS patients.

Since 2002, Dr. Xiaorui has persevered, and the situation is getting worse. In 2003, the WHO issued *Acupuncture: Review and Analysis of Reports on Controlled Clinical Trials*. This review circumvented public evaluation and totally avoided the peer-review system.

### Indiscriminate Medicine

The consequences are grave. Showing great contempt for the prevailing view in medicine, the report touts the effectiveness of acupuncture for, among other ailments, acute dysentery, hay fever, high blood pressure, rheumatoid arthritis, white-blood-cell deficiency

caused by chemotherapy, colic caused by gallstones, strokes, and sciatica. The very pursuit of a recommendation to apply acupuncture in the case of dysentery—a dangerous and not infrequently lethal infection—would cost many lives.

Only few people are aware of the insignificant legal and medical status of such reports; little wonder that quacks are very eager to loudly proclaim the content of this report. The label “Recognized by the WHO” inspires misplaced confidence.

Meanwhile, news of preparations for a similar report, this time on the subject of scientific research on homeopathy, have leaked out. By chance, we were able to take a look at this secret draft report, which was handed around to a number of unknown experts by Xiaorui in November 2004. We immediately conveyed our objections to him. An answer remains forthcoming, and that’s why we feel compelled to raise the alarm over this, before the WHO actually proceeds to publish.

A letter that accompanied the draft states that it “is intended for a restricted audience only” and that the draft text “may not be reviewed in any form or by any means outside the restricted audience.” Comments were to be sent before the end of January 2005. Reading this draft report reveals why this secrecy is required. The tenor of *Homeopathy: Review and Analysis of Reports on Controlled Clinical Trials* is no better than the content of the report on acupuncture. The report refers to the infamous research of Jacques Benveniste on water-memory effects. Indeed,

Benveniste's study did make it to *Nature* (with serious reservations by the editor), but there's not a word on the subsequent revocation of that same article.<sup>2</sup>

The draft report also indiscriminately adopts the ill-quoted conclusion of German scientist Klaus Linde, whose research was published in *The Lancet* in 1997. Linde stated that the clinical effects of homeopathy could not be entirely attributed to the placebo effect. (Linde has since renounced this conclusion.) But he also added that he had not found a single piece of evidence that homeopathy clearly works. The WHO clearly applies a method which countless homeopaths also use: selective critical thinking.

### 'Factually Wrong' and 'Problematic'

With regard to homeopathy, the draft report presents some indications for which effectiveness is claimed to be proved: tropical diarrhea among children, hay fever, beginning influenza, fibromyalgia, stomatitis during chemotherapy, and postoperative ileus, among others. Also, senseless explanations are brought up to support the supposed effectiveness of submolecular diluted solutions. The statements on the importance of agitation during the preparation of homeopathic remedies are downright hilarious.<sup>3</sup>

As in the report on acupuncture, critical reviews by the most influential authors/authorities that are specialized in scientific research on alternative treatments—the Web site Bandolier (Oxford University), the Cochrane Library, and Edzard Ernst (Exeter University)—are entirely ignored. In fact, Ernst considers the report to be “misleading and factually wrong.”

Even more damaging to the credibility of the WHO report is the recent opinion of Klaus Linde, ironically, the most cited author in the same report. He considers the draft report on homeopathy as “overoptimistic” and would find it “problematic” if this would be circulated as an official WHO paper.<sup>4</sup>

### Science by Majority Vote?

When it comes to health, what is decisive for the WHO—popular belief or expertise? As a matter of fact, it looks as though the majority opinion among the Third World countries in the WHO is the deciding factor and the organization's policies on some alternative remedies are determined by popular vote. If the application of holy water and irradiated tomatoes for the treatment of athlete's foot becomes popular, will the WHO also buckle under arguments of popularity? Listing the category “experience-based medicine” alongside the category “evidence-based medicine” is plainly misleading. For centuries, experience made people believe that treatments like bloodletting were excellent for one's health—until someone decided to scrutinize this claim.

The contempt for scientific standards in the evaluation of alternative and traditional medicine has disastrous consequences for the reputation and authority of the WHO, and leads to a considerable increase in quackery.

By legitimizing acupuncture while at the same time asking for “more research,” the WHO is blowing hot and cold, creating a dangerous precedent. Also, the too-favorable judgment of “traditional medicine” by the WHO definitely won't alleviate the urgent need for rational and effective medicine in the Third World. It is very important that the WHO office realize that its documents are scrutinized. The quack lobbies that have infiltrated the WHO cannot be given a free ride. We ask all scientific and skeptical organizations to contact their health officials to let the WHO know that they expect the highest scientific standards to be applied in all official WHO statements on medicine.

Furthermore, the WHO's recommendations for methods of treatment should no longer be made by a majority vote but instead be based on a set of undisputed scientific criteria. Contributors to WHO reports should be above any suspicion of conflicts of interest. We also insist that

Dr. Xiaorui should put any future draft reports under review by experts. In our opinion, a degradation of the WHO standards presents a sad and dangerous situation.

### Notes

1. Since its foundation in 1948, the WHO has been publishing strategic documents in which it addresses global health problems and announces its plans. The 1977 report *Action Programme on Essential Drugs*, which listed 300 essential medicines and vaccines, is a good example. Since 1986, this action program has become part of the WHO strategy on the rational use of drugs, pleading in addition for national regulations on the registration of medicines, more schooling and exchange of information, [reduction/elimination] of deceptive drug advertising, and more research on tropical diseases. Another important report was *Health for All in the Year 2000*, which was the result of a conference in Alma Ata, Kazakhstan, in 1978. The recommendations in this document were undisputed and included the guideline that developing countries should spend at least 5 percent of their gross national product on health care.

2. About Benveniste, the report says: “A study published by a group led by Benveniste (Davenas

In the United States or Canada, the names and addresses of the officials to contact to put pressure on the WHO to stop promoting medical pseudoscience and to encourage the application of scientific medicine in all regions of the world are:

**Michael O. Leavitt**, Secretary  
The United States Department of  
Health and Human Services  
200 Independence Avenue S.W.  
Washington, D.C. 20201

Telephone: (202) 619-0257  
Toll free: 1-877-696-6775

**The Honorable Ujjal Dosanjh**,  
Federal Minister of Health  
Health Canada  
A.L. 0900C2  
Ottawa K1A 0K9

Telephone: (613) 957-2991  
Toll free: 1-866-225-0709  
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1988) attracted wide attention. . . . Although these studies have proved irreproducible, subsequent studies using a modified method . . . have shown positive results, which have been reproduced by several different laboratories. . . ." One of the studies quoted was from Belon et al. in 1999. This study was the subject of a carefully conducted experiment by the BBC and proved not to be able to demonstrate any specific effects of ultra-diluted solutions, contrary to the unequivocal assertions. Neither the immediate refutation by Davenas et al., the subsequent one by Hirst et al., nor the invalidation by the BBC are mentioned in the report.

3. About the role of agitation (shaking and knocking), the report states: "Theoretical work predicts that a body of water containing about  $10^{13}$ – $10^{17}$  molecules will spontaneously self-organise into a 'coherent domain' similar to electrons in a free electron laser (Del Giudice 1988). It appears that such coherent domains could be triggered by the process of dilution and agitation used in the preparation of homeopathic medicines."

Similar wording can be found in the February 2002 edition of *Chembytes*, the monthly e-zine of homeopath and chemist Lionel Milgrom, who is quoted in the draft report although he is not recorded in the bibliography.

Obviously, all this has nothing to do with the "clinical trials" in the title of the draft report. What this nonsense conceals, however, is that the quoted article is not at all concerned with fixed structures that exist long enough to be replicated but rather with the eventuality that the movements of the rotation axes of free-water molecules show a certain connection. It is a fact that water molecules are generally stuck to one or more neighboring molecules with hydrogen bonds. Structures that come into being in this way have a life span of about  $10^{14}$  seconds and during the same duration, any pattern in the random movements of the molecules crumbles away. This temporarily shared movement shows no preferential direction, but Del Giudice speculates that it might arise in the vicinity of substances with a

charge distribution (like proteins). However speculative this may sound, Del Giudice does not comment on any effect of agitation (shaking) and dilution. Nor is it evident how this mechanism would take effect in alcohol or lactose (the vehicles most often used for homeopathic solutions). After all, it remains unclear how the effect of knocking a vial on a leather-bound book (*Organon of Medicine* § 270, note 3) could have the slightest effect on molecules that constantly bump into each other at speeds of hundreds of meters per second.

This appeal to the highly speculative article of Del Giudice et al. can be treated in the same way as the "proof" of Hahnemann that links a personal observation about the intoxicating smell of roses with an anecdote about the Byzantine emperor Alexius, who passed out and was restored to consciousness with rose water by his sister (*Organon of Medicine* §117, notes 1 and 2).

4. E-mail message from Klaus Linde to Willem Betz.

## Mystical Experiences *Magnetic Fields or Suggestibility?*

JOE NICKELL

Some skeptics have embraced Michael A. Persinger's studies which supposedly demonstrate that electromagnetic stimulation of the brain can produce religious or paranormal experiences. Persinger's findings received extensive media attention, including television coverage by the BBC, CNN, and the Discovery Channel, in addition to numerous citations in print, especially in popular science magazines. Recent experimental results, however, cast doubt on Persinger's claims.

Persinger—a professor of psychology and biology at Laurentian University in Sudbury, Ontario, Canada—has claimed that a majority of test subjects (up to 80 percent) sense an unexplained presence when their temporal lobes are

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targeted by weak magnetic fields. Skeptics have been tempted to argue from Persinger's work that certain paranormal experiences may merely be due to brain stimulation. Supposedly, sightings of ghosts, angels, and aliens, as well as out-of-body experiences might all be caused by exposure to electromagnetic fields (as from electronic equipment or power lines) or Earth's geomagnetic fields (Roll and Persinger 2001; Shermer 2003; Granqvist et al. 2004).

Others (including myself) were troubled by some of Persinger's writings, such as "Investigations of Poltergeists and Haunts: A Review and Interpretation," co-authored with parapsychologist William G. Roll (Roll and Persinger 2001). This work suggests, for instance, that some *poltergeist* ("noisy spirit") disturbances that skeptical investigators have attributed to human tricks or other mundane causes (Christopher 1970, 142–163; Randi 1985; Randi 1995,

52–53, 186; Baker and Nickell 1992, 135–139; Nickell 2001) may instead be due to "a psychoenergetic force." The two collaborators opine that, possibly, "electromagnetic components of mental states can interact with electromagnetic energy in the environment to produce the events" (Roll and Persinger 2001, 152).

In late 2004, however, a joint study by scientists from two Swedish universities called into question much of Persinger's research. The scientists attempted to replicate Persinger's findings using the identical magnetic-field apparatus. Their experiments involved eighty-nine students in psychology and theology.

The researchers found no evidence that paranormal or religious experiences were caused by the electromagnetic stimulation. However, there were such reported experiences in both the test and control group subjects who were highly suggestible (as determined by use of a special questionnaire). The researchers