# Media Portrayal of Conflicts of Interest in Herbal Remedy Clinical Trials

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Complementary and Alternative Medicine (CAM) encompasses a wide variety of treatments, such as herbal remedies, not currently thought to be part of mainstream medicine. Our study focuses on herbal remedies, as their use is significant and increasing.[1] We ask whether media coverage of conflicts of interest in clinical trials of herbal remedies is of sufficient quality to provide the public with information to make decisions that are rational, well-informed, and low-risk. We know that the vast quantity of information available on CAM through popular media is of varying quality.[2]

In recent years, the scientific community is increasingly interested in studying herbal remedies.[3] As conflict of interest has been an issue in synthetic drug trials, especially those receiving funding from industry, we have reason to believe that this will also be true of clinical trials of herbal remedies, many of which are industry funded.

## What is conflict of interest and why are we interested?

In his thoughtful and widely accepted analysis, Thompson defined conflict of interest as "a set of conditions in which professional judgement concerning a primary interest (such as a patient's welfare or validity of research) tends to be unduly influenced by a secondary interest (such as financial gain)."[4] He also noted that, while a secondary interest is usually not illegitimate in itself, its relative weight in professional decision-making is problematic. The goal, therefore, is to prevent secondary interests "from dominating or appearing to dominate the relevant primary interest in the making of professional decisions", rather than to reduce or eliminate them completely.[5]

Conflict of interest rules, those regulating the disclosure and avoidance of these conflicts, generally focus on financial gain because it is relatively objective and easier to regulate by impartial rules. This does not mean, however, that financial gain has a greater potential for harm than other secondary interests.[6]

The subtle distinction between conflict of interest and bias must also be emphasized. A declared conflict should merely be seen as an association creating the potential for bias, rather than an indication of bias itself.[7] It has also been noted that if an association does compromise one's judgment, it is generally a result of unconscious bias rather than outright dishonesty.[8] Because the influence of secondary interests can be extremely subtle, the presence of bias is often difficult to determine with any degree of certainty.

## Why are these issues important in a media context?

As the popular press is often cited as a prominent source of medical information for the general public, it has the ability to shape public views and interpretations of new medical

research.[9] It follows that media reporting has the capacity to shape public perceptions of safety and efficacy of a particular herbal remedy, thereby influencing patterns of use.

The goal of our analysis is to infer how reporting of herbal remedy clinical trials by the popular media may be influenced by the disclosure of funding information and competing interests (i.e., the perception of a conflict) in the scientific and medical literature.

## Approach

We used a coding frame analysis to examine the media coverage of conflicts of interest in clinical trials of herbal remedies.[10] This technique allowed us to systematically compare newspaper articles to the reporting of the same trials in the medical literature.

We compared 389 newspaper articles (from the U.S., U.K. and Canada) reporting on herbal remedy clinical trials with the reporting of the 58 clinical trials in the medical literature. Primarily, we assessed tone, claims of efficacy, reporting of risk, and the disclosure of funding information and competing interests.

Our coding frame allowed us to compile information regarding the date and location of publication, authorship, the portrayed likelihood of benefits and risks, disclosure of conflicts of interest, disclosure of funding information and funding agency involvement, whether the article was framed as a controversy, and overall tone in both newspaper articles and medical journal reports of clinical trials.

## Media Coverage of Conflicts of Interest in Herbal Remedy Clinical Trials

A preliminary analysis of the data indicates that media coverage of conflicts of interest had an effect on the overall tone of the article. Newspaper articles that discussed conflict of interest were less likely to portray the herbal remedy as beneficial and more likely to report a higher level of potential risk associated with the treatment. This latter finding is significant, given the general tendency of newspaper articles to under-report risks in the context of CAM[11] and general coverage of medical and other biological research.[12]

Interestingly, medical journal articles that disclosed a financial conflict of interest were slightly more positive in tone than trials that did not. The results of those trials were discussed in a more neutral tone. However, when we examined the newspaper coverage of the trials that reported a conflict of interest, there was a distinct shift toward a negative tone in the newspaper coverage.

Our results suggest that conflict of interest in clinical trials of CAM is under-reported by scientific and medical journals as well as by the popular media. Only a minority of clinical trials and a minority of newspaper coverage declared a conflict of interest. However, declaration by researchers of a conflict of interest encouraged more polarized and more negative reporting by the popular media, a phenomenon that is presumed to be mediated by an unconscious effect rather than deliberate bias. Taken together, our results suggest that the reader is generally not provided with adequate information to make an informed decision, neither regarding the efficacy of a given herbal remedy nor the likelihood that a disclosed conflict biased the results of a particular study.

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*This is the first part of our two-part study. We are now looking at media coverage of conflicts of interest in trials of synthetic drugs used to treat the same medical conditions as those covered in the present study on CAM.*

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