

## **Consumer Advocacy or Quack Attack?: Representations of Homeopathy in the Media**

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### **Abstract**

Public interest in alternative medicine, and homeopathy in particular, is on the rise and the news media are providing stories about the topic to engage and educate readers. Over one thousand newspaper and news magazine articles from Canada, the US and other countries were examined from 1998-2008 to identify trends in the coverage of this emerging health issue. Opponents were vociferous in their critique of homeopathy and alternative therapies and characterized them as contemporary forms of "quack" medicine. Nevertheless, the majority of articles provided informative investigations of public interest in the new alternatives. It would appear that the news media are providing support for health consumers seeking information about alternatives to mainstream medicine.

### **Introduction**

A competition is currently taking place in the field of medicine. The orthodox medical establishment is facing a challenge to its historical position of dominance from an array of alternative therapies. Scholars note that we are witnessing "a renegotiation of the social contract of healing" and "the re-emergence of alternative modes of thought and practice about health and illness" (Pescosolido and Kronenfeld, 1995:16). Alternative medicine consists of a number of types of therapies including chiropractic, acupuncture, massage therapy, herbalism and homeopathy. According to a study released by Canada's Fraser Institute in 1999, an average of 73% of Canadians have used alternative therapies and they are spending \$3.8 billion a year on them (Lem, 1999). In the US, visits to

alternative medicine practitioners now exceed total visits to standard physicians and Americans are spending over 20 billion dollars a year on alternative therapies and treatments (Eisenberg *et al.* 1998). Homeopathy, a form of treatment that uses extremely diluted preparations of natural substances is the fastest growing of these alternative medicines (Kreidić, 1998). Despite a strong tradition in Europe,<sup>1</sup> homeopathy in North America has been subject to considerable criticism from the existing medical establishment, which claims that homeopathy is an unsubstantiated and unscientific form of treatment. Homeopaths counter that their treatment gets results and that it is only the medical profession's deeply ingrained suspicion towards the unorthodox that prevents it from acknowledging homeopathy's claims of veracity. The media have taken note of the consumer interest in alternative medicine and homeopathy in particular and are providing considerable coverage of the issue. This article examines the ways in which 1400 Canadian, American, and some international newspapers and news magazine articles covered this issue from the period 1998-2008.

### **Popularity of Homeopathy**

Homeopathy and the orthodox medical establishment have been long time rivals in North America. Homeopathy was established in Germany in the 1800s by a doctor named Samuel Hahnemann (1755-1843) who developed homeopathic remedies from botanical and mineral sources. In the 19th century, homeopathy's successes during cholera epidemics made homeopathy a popular alternative to conventional medicine. Homeopathy's minimalist approach imported from Europe in the mid-1820s contrasted favorably with the purging, bleeding, and leeching techniques of the medical practitioners

of the time. History of medicine scholars have revealed that conventional physicians, seeing homeopaths as competitors, formed the American Medical Association in 1847 partly as an attempt to exclude and subdue these rivals (Coulter, 1982; Warner, 1997). Historical research into this contest shows that, despite homeopathy's considerable measurable success in healing patients, conventional medicine gained a monopoly on the health care system in part because it was successful in an ideological campaign that valorized scientific medical practice and discredited the homeopathic alternative (Warner, 1998; Rogers, 1998). Homeopathy and other competing alternative therapies were driven into virtual obscurity for over half a century and the dominance of the orthodox medical system became nearly absolute.

We are now witnessing the revival of homeopathy, and it is becoming big business. From 1990 to 2000, sales of homeopathic products in the United States rose 1000% (Sayner-Flusche 2000) and are expected to continue growing steadily each year. According to the National Center for Homeopathy, sales of homeopathic remedies in the US are over \$300 million and are increasing by 12% per year. US statistics are similar to those in Canada, suggesting increasing use of homeopathy in both countries (Johnson and Boon, 2007). National drugstore chains carry homeopathic products and the number of professional practitioners in the US has increased from 200 in the 1970s to 3,000 today. (Stehlin, 1996). In recent years, dozens of private homeopathy schools have opened in North America and thousands of homeopaths are establishing private practices.

Many factors contribute to the increased public demand for homeopathy as well as other forms of alternative medicine. Researchers note that an increasingly well-

informed public is becoming disappointed with the failure of scientific medicine to live up to its promises and to fulfill popular expectations. Also significant, may be the frequency of iatrogenic disease, the suffering caused by some diagnostic procedures, and the apparent inability of mainstream medicine to cure various common and chronic diseases (Patel, 1987; McGregor and Peay, 1996). In addition, homeopathy's focus on a holistic form of healing that is concerned with the treatment of the whole person is becoming increasingly valued by contemporary health consumers. Where allopathic medicine focusses on the alleviation of symptoms caused by illness, homeopaths argue that they seek to follow the symptoms to discover the underlying cause of the condition and prescribe remedies that will aid in the body's ability to heal itself.

As a result of the resurgence in the popularity of homeopathy we are currently witnessing a revival of the ideological battle that once successfully marginalized homeopathy. In the current context the debate revolves around the basic principles of how homeopathy works.

### **Skepticism of Mainstream Medical Establishment**

The main issue of contention is debate over the core principles of homeopathic pharmacology. Although there are variations in the types of approaches used by practitioners of homeopathy, the core principle stems from the Law of Similars, which states that "likes should be cured by likes." This means that a substance which in large amounts could cause a disorder within the body, in small amounts will cure that same disorder. An example of this is seen in the case of a bee sting which causes pain and swelling, and in some people can lead to anaphylaxis. Yet in a homeopathic preparation,

a minute dose of bee venom (*Apis*) is used to ease swelling and pain.

Homeopathy is known as a “gentle” form of medicine because homeopathic substances are highly diluted from the original strength of the herb or mineral. Homeopathic remedies are prepared by repeatedly diluting an active ingredient until it virtually disappears from the solution used in treatment. In the pharmacology of homeopathy this means that the remedies are actually considered to be more powerful because of this dilution process and can work more effectively to boost the bodies own healing abilities.<sup>2</sup> Advocates of homeopathy believe that the smaller the amount of curative, the greater its power to cure. Yet many scientists and health officials say that homeopathic remedies are diluted to a level below Avogadro’s number<sup>3</sup> so that no molecular traces of the original substances are left in the final solution.

In recent years, several mainstream medical journals including *The Lancet* and *The British Medical Journal* have published research confirming homeopathy’s effectiveness<sup>4</sup>. Nevertheless, the mainstream scientific community remains skeptical about the validity of homeopathic research.<sup>5</sup> Timothy Caulfield and Suzanne DeBow of the Health Law Institute at the University of Alberta, examining dozens of published research studies over a ten year period, found evidence of “a publication bias against homeopathy exists in mainstream journals” (Caulfield and DeBow, 2005). A report from the British Journal of the Royal Society of Medicine found that academic reviewers were more likely to recommend publication of an article on conventional medicine than an otherwise identical one on alternative therapies. The authors stated that “technically good unconventional papers may be at a disadvantage in the peer review process” (Birchard,

2000).

This type of response reveals Western medicine's position that an alternative form of treatment is unscientific if it lacks a plausible mechanism of action based on our current understanding of the fundamental laws of science, without consideration that those laws may be subject to re-evaluation. Homeopaths claim that their tradition does not deny conventional pharmacology and physics but rather extends our understanding of it. Homeopathic researcher Dr. Bill Gray argues that recent biophysical research, based on modern Quantum Electrodynamics and development of advanced techniques of measurement, has demonstrated that water prepared by homeopathic methods has "regions of coherence and resonance which are capable of replicating clusters and transmitting information." Thus, the very molecular and electromagnetic structures of coherent water "render the paradox of Avogadro's number irrelevant."<sup>6</sup>

Thus the supporters of homeopathy and its critics are engaged in a battle for legitimacy over this form of alternative medicine. Each side has attempted to have their perspective presented in the media with varying levels of success.

### **Media Coverage of Health Issues**

Journalists have traditionally focussed on the miracles of modern medicine in their health reporting and effectively endorsed the authority of the medical model by privileging stories that feature heroic doctors and life-saving medicines. High-tech medical interventions, in particular, are profiled and celebrated in many health stories. Alternatives to mainstream medicine are often marginalized or ignored Karpf (1988:61). Yet in recent years, Seale (2002) notes that consumer who seeks to make independent

and informed decisions about healthcare options has become a kind of hero in some of the health reporting. He notes that the media has attempted to represent “the voice of the people against an oppressive medical establishment,” (Seale, 2002: 157). Bunton’s (1997) examination of forty years of health news in *Good Housekeeping Magazine* identified increased positive coverage of alternative therapies and a decline in the reverence of traditional medical authority. Leask and Chapman (1998) note in their study of Australian media that journalists regularly produce stories that portray an individual healthcare consumers’ struggle against the “forces of commerce and industry” (1998:23). This paper will examine the extent to which the consumer interest in alternative medicine continues to be supported by positive media coverage or whether the proponents of mainstream medicine and orthodox science will prevail.

## **Methods**

In this project articles about homeopathy from a wide variety of print news media sources were examined from the period 1998-2008. The Lexis Nexis data base was used to collect 1405 articles from leading daily newspapers and news magazines in Canada, the U.S. and an assortment of English-language articles, primarily from the UK, Australia, New Zealand, and India.<sup>7</sup>

All the media articles were reviewed and categorized by the author into eleven discreet story types listed here in order of frequency: #1 News of Public Trends, #2 Consumer Health Stories, #3 General Information and Announcements, #4 Focus on Complementary and Alternative Medicine, #5 Homeopathy for Pets and other Animals, #6 Warnings about alternative medicine from skeptics, #7 Celebrity use of homeopathy,

#9 Research News, #10 Trials of CAM practitioners, #11 Parlance, #12 Gratuitous negative. A description of the various story types and their frequency is presented in Table #1.

All of the articles were evaluated and assigned a rating of positive, negative, neutral or 'oppositional balance'. Yoon's (2005) study of journalist's stem cell coverage was used as methodological model and adapted for this project. Stories were assigned ratings that reflected the overall tone of the article towards homeopathy specifically or alternative medicine in general. A summary of the ratings is provided in Table #2.

## **Results**

The data reveals that the majority of stories about homeopathy in the media were news articles reporting on trends in the public's use of alternative medicine and/or sales of homeopathic preparations. This was followed in frequency by consumer-oriented articles offering information, and/or advice regarding the use of alternative health products as well as testimonials of those who have used homeopathy. Next was general information and announcements relating to alternative medicine including announcements of upcoming lectures, and the opening of new clinics. Approximately 10% of the articles were investigative pieces that were usually longer and more in-depth than a news story and researched a variety of views on alternative medicine. Other story types included a focus on veterinary uses of homeopathy and research news on recently released findings regarding homeopathy. Six percent of the media articles were news stories and interviews reporting on the use of homeopathy by public figures including the British Royal Family, Hollywood Stars and sports figures. A large number of stories in



this category stemmed from media coverage of celebrity use of homeopathy including Olivia Newton John, J.D. Salinger, Cate Blanchett, Ralph Fiennes and Kate Moss.

Warnings about alternative medicine from skeptics constituted 20% of the stories which included media coverage of statements by public critics of alternative medicine. There was also court-style reporting on alternative health care practitioners in trouble with the law, and a story type labelled as “Gratuitous negative” which included sensational and/or tragic news stories that made reference to homeopathy although it had no bearing on the facts of the story - as in the story of an infant mauled by a dog that mentioned that one of the child’s relatives studied homeopathy.<sup>8</sup> Finally, 2% of the stories involved a form of language play using homeopathy in parlance as a synonym for minimal as in “Central Bank insists in cutting interest rates by homeopathic doses”<sup>9</sup>.

The story types were fairly consistent in Canada, the United States, and the other countries examined. The only variation from the overall pattern shown in Table 1, was that in the UK, stories on veterinary homeopathy were among the top three most frequent story types compared to fifth or sixth place in other countries. This was likely due to a series of stories addressing homeopathic applications for Bovine Foot and Mouth Disease, a veterinary health crisis that gripped Britain during part of the period of this study. In addition, the US had more articles than any of the other countries focussing on the views of skeptics who warned of the dangers of the use of homeopathy. A number of these skeptics were involved in large scale public relations campaigns that sought US media attention for their recent book publications.

The vast majority of the articles were labelled as positive in their presentation of

homeopathy. Stories that were identified as positive presented favourable information about homeopathy. Media articles of almost every type were positive, but those that presented consumer health information or covered veterinary material were the most likely to be positive. A common theme in stories of this type were articles in the health section of the paper that identified homeopathic preparations as potential treatments for a variety of common health complaints such as the flu. In addition, there were a significant number of articles that presented favourable first hand experiences with homeopathic treatment.

Fifteen percent of the stories were rated as negative. These included a variety of story types including trials of homeopathic practitioners, and investigative research articles on homeopathy, but the majority of negative stories were those that stemmed from interviews with outspoken critics of alternative medicine. An example of this were the articles and interviews featuring Robert Park, a professor of physics at the University of Maryland and director of the American Physical Society's (APS) Public Information Office, who was promoting his recent book *Voodoo Science: The Road From Foolishness to Fraud*. Park is a public crusader devoted to critiquing pseudo-scientific “fraud” and his book was a top seller that was greeted with much media fanfare. Features profiling Park appeared in the USA Today, Newsweek, US News & World Report, Boston Globe, Montreal Gazette, New York Times, as well as many other outlets.

In the articles that were classified as “negative,” homeopathy, specifically, and alternative medicine in general were described as quackery<sup>10</sup>, hokum<sup>11</sup>, snake oil<sup>12</sup>, magical<sup>13</sup>, voodoo<sup>14</sup>, and mumbo jumbo.<sup>15</sup> Alternative health practitioners were

described as “untrained bearded maniacs”<sup>16</sup> who made “preposterous claims”<sup>17</sup> and hucksters<sup>18</sup> who were perpetrating a fraud<sup>19</sup>. People who supported alternative medicine were described as hysterics<sup>20</sup> and fools<sup>21</sup> who were supporting irrational<sup>22</sup> and fanciful<sup>23</sup> beliefs and were said to be suffering from “mass delusional insanity”<sup>24</sup>. Homeopathy was described as “junk science,”<sup>25</sup> and “complete nonsense”<sup>26</sup>.

Stories that were labelled neutral provided straightforward information about the topic. News articles that were labelled in this manner tended to be articles ranged from announcing the opening of a homeopathic pharmacy to reporting on changes in health trends that showed the public’s use of alternative medicine.

The fourth category, labelled ‘oppositional balance’ refers to stories that sought to present the topic as a contentious or debatable issue and presented both positive and negative opinions on the topic. This attempt at journalist balance was not always equitable and the journalists often paired straightforward reports on homeopathy’s effectiveness with the virulent attacks of those hostile to homeopathy.

The overall pattern of story ratings was very consistent across the countries examined. The only exception to the pattern shown in Table 2 was that in the UK, there was an even higher percentage of positive stories on homeopathy (46% as compared to an average of 38% elsewhere) and slightly less stories labelled as oppositional balance.

## **Discussion**

Groups engaged in competition over dominant knowledge systems use a number of means to gain advantage over their opponents, including political lobbying,

mobilization of resources, and ideological legitimization<sup>27</sup> (Zald and McCarthy, 1997; Carroll, 1992). Ideology, which can be defined as a set of ideas that shapes our understanding about what is natural, rational, and legitimate (Eagleton, 1991; Dijk, 1998), is used by social groups to justify their own positions and to marginalise and discredit their rivals. Critical media scholars (Glasgow University Media Group, 1977, 1980; Hall, 1974; Knight, 1982; Gamson and Stuart, 1992; Hackett and Zhao, 1998) argue that the news media can be seen as a fundamentally ideological construct in which no account of events is "reality written down" but only a specific story about reality. They show that the news media create accounts of the world that systematically rely on and reinforce certain types and forms of social knowledge to the exclusion of others. Theorists in this tradition argue that the media "consistently maintains and supports a cultural framework within which viewpoints favorable to the status quo are given preferred and privileged readings" (Glasgow University Media Group, 1980:233).

In this article the media's role as an important social institution for the ideological legitimation of one group and the marginalization of another is examined. We have seen that homeopathy, once a competitor of the orthodox medical system that was side-lined in the early part of the twentieth century, is undergoing a popular revival. The media coverage in this study reveals that the majority of news stories provided positive and neutral coverage of increased public interest in alternative medicine and reported on the results of successful scientific investigations of the treatment as well as personal testimonials from practitioners and patients. In depth articles investigated debates over the core principles of the treatment and multiple perspectives from a variety of sources

were presented. The media largely followed good journalist practice, making an effort to provide balanced and informative coverage and some ways could be seen to side with the consumer desire to seek alternatives to the mainstream medical establishment. Only fifteen percent of the articles were identified as purely negative and did not provide any diversity in perspectives on the topic. Close examination of these cases revealed that informative journalistic language gave way to name calling and straightforward headlines became mud-slinging assaults. Alternative perspectives were portrayed as ludicrous quackery and homeopathic practice as the realm of superstition and the occult. Instead of valorizing popular discontent with the orthodox medical system, the negative stories saw consumer support for alternative medicine as evidence of a mass delusion that had affected the minds of even the most well educated in the society. Vociferous opponents to the alternative healing approach cast aspersions on the practice and denounced the public for their irrational adherence to this treatment. The shrill style of rhetoric found in this portion of the media's coverage of homeopathy is usually reserved for debates that address profound ideological positions such as politics or religion and hasn't normally been a part of discussions of healthcare. The final evaluation, however, supports Seale's (2002) observation that "views that oppose organized medical interests are not as weakly represented in the media as some critical media analysts suggest," (2002:158). Journalists are taking seriously the public's interest in alternative medicine and have made some significant efforts to investigate and disseminate information on the topic to the public.

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Stem Cell and Cloning Organizations,” *Journalism and Mass Communication Quarterly*, 82, 2.

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<b>Table # 1: Types of media articles on homeopathy</b>		
	<b>Total</b>	<b>Percentage</b>
#1 News of Public Trends -Standard news articles reporting on trends in the public’s use of alternative medicine and/or sales of homeopathic preparations.	288	20%
#2 Consumer Health Stories -Consumer-oriented articles offering information, and/or advice regarding the use of alternative health products. Also testimonials of those who have used homeopathy.	250	18%
#3 General Information and Announcements -News articles relating to alternative medicine including announcements of upcoming lectures, opening of clinics etc.	169	12%
#4 Focus on Complementary and Alternative Medicine -Investigative articles researching a variety of views on alternative medicine, usually longer and more in-depth than a news story.	126	9%
#5 Homeopathy for Pets and other Animals -Articles discussing Veterinary use of homeopathy including several items addressing Bovine Foot and Mouth Disease.	109	8%
#6 Warnings about alternative medicine from skeptics -Media coverage of statements by public critics of alternative medicine.	248	20%
#7 Celebrity use of homeopathy -News stories and interviews reporting on the use of homeopathy by public figures including the British Royal Family, Hollywood Stars and sports figures.	83	6%
#8 Research News -News reports on recently released research findings regarding homeopathy.	53	4%
#9 Trials of CAM practitioners -Court-style reporting on alternative health care practitioners in trouble with the law.	45	3%
#10 Parlance -Language play using the term homeopathy usually as a term for minimal as in “Central Bank insists in cutting interest rates by homeopathic doses” (AFX News June 21, 1999) .	30	2%
#11 Gratuitous negative -Sensational and/or tragic news story that makes reference to homeopathy although it has no bearing on the facts of the story - as in the story of an infant mauled by a dog that mentioned that one of the child’s relatives studied homeopathy! (Toronto Star February 23, 1999).	4	>1%
<b>Totals:</b>	<b>1405</b>	<b>100%</b>



<b>TABLE #2: Ratings of media articles on homeopathy</b>			
<b>Rank</b>	<b>Rating</b>	<b>Total Score</b>	<b>Percentage</b>
<b>#1</b>	<b>Neutral</b>	546	39%
<b>#2</b>	<b>Positive</b>	538	38%
<b>#3</b>	<b>Negative</b>	209	15%
<b>#4</b>	<b>Oppositional Balance</b>	112	8%
<b>Total</b>		1405	100%

## Endnotes

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1. Members of the British Royal Family, including Prince Charles and the late Queen Mother (who was an active patron of the British Homeopathic Association) are known as enthusiastic users of homeopathy, and in France and Germany it enjoys a popularity equal to that of conventional medicine. "Healers or Quacks? Therapies once viewed as fringe are becoming mainstream," *Maclean's*, Vol.108, No.39, September 25, 1995:34-39. In Russia there are more than 1000 homeopathy centers (Natalia Yezhova "Homeopathy development conference opens in Moscow" TASS January 19, 2001

2. Homeopathic remedies have varying strengths which are indicated by the number of times they are diluted. An example is extract of belladonna, derived from a highly poisonous plant also known as deadly nightshade. Conventional physicians prescribe drops of tincture of belladonna for a variety of gastrointestinal problems, but homeopaths use belladonna in much smaller amounts. The dosage that homeopathic physicians commonly use for problems such as croup in children or bronchitis in adults is known as 30C; the "C" stands for a one-in-one-hundred dilution. That means one drop of belladonna extract is dissolved in 99 drops of a water/alcohol solution; then one drop of the new solution is further diluted by 99 drops of liquid; and so on, 30 times. After 30 dilutions, the concentration of belladonna would be expressed scientifically as 1 over  $10^{60}$ .

3. Avogadro's number ( $6.023 \times 10^{23}$ ) refers to the number of molecules contained in one mole of a substance. It is approximately equivalent to the 24x level of dilution. Potencies greater than 24x will not contain one molecule of the original starting substance. Amadeo Avogadro (1776-1856) was the physicist this principle was named for. Thus, according to the traditional laws of chemistry, a remedy that has been prepared at a  $10^{24}$  dilution - that is, a homeopathic dosage of 24C - would be theoretically diluted just past the point where a dose contains a single molecule of the original substance. At greater dilutions, which are often used in homeopathy, contemporary science contends that none of the original substance is left in the water (Yasgur, *A Dictionary of Homeopathic Medical Terminology*, 1992: 27).

4. In a meta-analysis of 186 studies of homeopathy, researchers reported in the medical journal *The Lancet*, that patients taking homeopathic remedies were 2.45 times more likely to experience a positive therapeutic effect than would be produced by a placebo effect alone. K. Linde, N. Clausius, G. Ramirez, et al. "Are the Clinical Effects of Homeopathy Placebo Effects? A Meta-analysis of placebo-controlled trials." *Lancet*, Vol 350, 1997:834-843; J. Kleijnen, P. Knipschild, G. ter Riet, Clinical Trials of Homeopathy, *British Medical Journal*, February 9, 1991, 302:316-323. This is the most widely cited meta-analysis of clinical research prior to 1991. This meta-analysis reviewed 107 studies of homeopathic medicines, 81 of which (or 77%) showed positive effect. Of

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the best 22 studies, 15 showed efficacy. The researchers concluded: "The evidence presented in this review would probably be sufficient for establishing homeopathy as a regular treatment for certain indications." Further, "The amount of positive evidence even among the best studies came as a surprise to us."

5. A significant event in this debate took place in the pages of the British scientific journal *Nature* in June of 1988. *Nature* published a report of a French research team headed by Dr. Jacques Benveniste that supported the claims of homeopaths that highly diluted remedies work because they contain information left behind by substances no longer detectable in the water. As a condition of publication, the research was confirmed in other laboratories, and *Nature*'s reviewers had been unable to find a flaw that would invalidate the results. The editors of *Nature* took the unusual step of publishing an editorial reservation beneath the article, saying that there was no physical basis for the results as reported by Benveniste. The following month the journal dispatched three observers to investigate the research first-hand: *Nature* editor John Maddox; fraud hunter Walter Stewart of the National Institutes of Health; and magician James "the Amazing" Randi, famous for debunking claims of telepathic powers and other paranormal phenomena. After five days of observing the experiments, the *Nature* team concluded that Dr. Benveniste's claims were not to be believed and that the laboratory "fostered and then cherished a delusion". They charged that the experiments were poorly designed, that unsatisfactory measurements were discounted, and that the experimenter's bias had probably influenced the interpretation of results. In response, Benveniste called the investigation "a mockery of scientific inquiry" and compared it with the Salem witch hunts. Among other things, he pointed out that none of the de-bunkers were trained in immunology, and he questioned their competence to judge an immunological experiment (For a fascinating analysis of the Benveniste Affair see Wolpe, "The Dynamics of Heresy in a Profession," 1994).

6. Bill Gray. *Homeopathy: Science or Myth*, North Atlantic Books, 1993:73.

7. The newspapers and magazines examined in this study were:

Canada: National Post, Toronto Star, Halifax Chronicle Herald, Saint John Times Globe, Fredericton Daily Gleaner, Moncton Times Transcript, Financial Post, New Brunswick Telegraph Journal, Globe and Mail, Winnipeg Free Press, Victoria Times Colonist, Lethbridge Herald, Toronto Sun, Hamilton Spectator, Kitchener Waterloo Record, London Free Press, Guelph Mercury, Winnipeg Sun, Maclean's, Saturday Night, Chatelaine

U.S.: Washington Post, Boston Globe, LA Times, Seattle Times, NY Times, Newsweek, US News, Time

Plus an assortment of approximately 400 other global print media sources largely from the UK Australia, New Zealand, India.

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8. Toronto Star February 23, 1999
  9. AFX News June 21, 1999
  10. Glasgow Herald, September 12, 2000
  11. Bangor Daily News, November 8, 1999
  12. Time November 8, 1999
  13. Forbes, March 20, 2000
  14. The Observer (UK) December 3, 2000
  15. Riverside California Press Enterprise, June 21, 2001
  16. London Sunday Times, January 9, 2000
  17. USA Today May 1, 2001)
  18. Montreal Gazette October 2, 1999
  19. US News February 17, 1997
  20. Chicago Sun-Times, November 25, 1999
  21. Buffalo News, March 27, 2000
  22. Boston Globe June 20, 2000
  23. London Independent April 6, 2000
  24. Kirkus Reviews June 15, 1999
  25. USA Today May 1, 2001
  26. Forbes, March 6, 2000
  - 27.