

"A Petri Dish of Fetid Disinformation of the First Magnitude"

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Dr. Anthony Rosner, who writes our "FCER Forum" column, sent the following letter to Pat Mitchell, president and CEO, Public Broadcasting Service (PBS) on June 18, shortly after viewing the broadcast of "A Different Way to Heal" on the program which included a segment on chiropractic: "Adjusting the Spine."

Dear Ms. Mitchell:

I am writing to you as the director of research and education of the Foundation for Chiropractic Education and Research, which, for over half a century has been the premier organization supporting research and postgraduate study in areas pertaining to the theory and practice of chiropractic health care. Perhaps even more importantly, I write to you as a former subscriber to PBS, which, in my, and most others' perceptions, is an organization whose hallmarks have been both freedom from commercial bias and the capacity to deliver objective, informative news to the public worldwide.

Thus, it was with equal parts of incredulity, dismay and horror that I and the public experienced your television broadcast on June 4 of "A Different Way to Heal," an episode of "Scientific American Frontiers." From the slurs of Robert Baratz (representing an anti-fraud organization whose statements on chiropractic have been officially discredited¹); to the testimony of a former disenchanted chiropractor; to the deliberately orchestrated terminology used by your lead narrator Alan Alda, you could not have further denigrated the term "scientific" had you tried. Instead of serving as the font of documented scientific information from the best peer-reviewed medical literature, your program relied upon hearsay, biases and opinions from clearly prejudiced sources, and transformed itself into a petri dish of fetid disinformation of the first magnitude. I am frankly amazed that a program and broadcasting network of your stature should have failed so spectacularly in one of the primary tenets of research - which is, of course, to conduct a balanced, detailed review of available information that has appeared in the refereed scientific literature for the past 25 years.

To begin, it is curious that you should have chosen a former (and disgruntled) chiropractor to provide the lion's share of primary reference information regarding the chiropractic clinical experience to the public. We know nothing about the circumstances under which John Badanes left the profession, and the public wasn't given at least an equal exposure to a chiropractor in current practice that represents the thinking of the majority of the profession, to provide the necessary clinical perspective. Your heavy reliance upon Badanes' testimony was as absurd as counting upon retired astronaut John Glenn as the primary source of information on the recent upgrade of the Hubble telescope from the space shuttle Discovery.

Instead, you elected to instill in the viewer a malevolent, pseudoscience stereotype of a treatment which, in Alan Alda's own terminology, is "illogical," "violent," and designed to overcome "some kind of blockage of some life force that was coming in from the universe," in an endeavor in which

"...it's easy not only for the patient to be fooled, but the chiropractor, too." Rather than describing the attributes of a new treatment that your program is presumed to accomplish, you chose to desecrate it instead. What was your primary objective here?

Rather than continue under your program's unmistakable impression that chiropractic health care is based more upon religious zealotry than scientific principles, I wish to immediately direct your attention to the enclosed reprint from no less a source than the *Annals of Internal Medicine* - presumably where the derivative material for a program that calls itself "Scientific American Frontiers" should have begun, rather than ended as requisite material that had to be imported from your viewing public. In the reprint you will notice that, in contrast to what Alan Alda may have concluded, chiropractic care is at the crossroads of alternative and mainstream medicine, increasingly viewed as effective "by many in the medical profession." Rather than being "totally based upon a religious belief system," as Robert Baratz would have led us to believe in your program, this particular article clearly states: "...much of the positive evolution of chiropractic can be ascribed to a quarter-century-long research effort focused on the core chiropractic procedure of spinal manipulation. This effort has helped bring spinal manipulation out of the investigational category to become one of the most studied forms of conservative treatment for spinal pain."²

In the interest of acquainting you with merely a fraction of the vital information omitted on your program, I would first like to orient you to some important background material regarding chiropractic care, and then take up a few of the more troubling aspects of your broadcast. In the interests of both objective reporting and the sharing of credible information in publicly funded media, I expect that you will be able to respond appropriately to this material.

General Comments

Chiropractic is recognized and licensed in every state and province in North America, as well as in 76 nations representing the European; Asian; Latin American; Caribbean; Eastern Mediterranean; and Pacific domains.³ The increasing acceptance of chiropractic as a legitimate health care profession has occurred, in part, through the increasing emphasis on research by professional organizations and colleges, with funding by outside agencies. It also stems from the accrediting and review of educational curricula at chiropractic colleges around the world, 16 of which are accredited in the United States by the Council for Chiropractic Education (CCE). The CCE has had accrediting agency status with the U.S. Department of Education since 1974, and with the Council on Postsecondary Accreditation since 1976. The minimum content of hours required for CCE accreditation is 4,200, and ranges from 4,400 to 5,220 hours at colleges nationwide.²

The didactic basic science and clinical science hours among chiropractic colleges around the United States compares closely with the corresponding averages obtained from medical schools nationwide.⁴

With over 65,000 licensed practitioners in the United States, chiropractic has taken its place as the foremost profession through which spinal manipulations have been administered - largely in the treatment of back pain, but increasingly for other disorders, such as neck pain; headache; cumulative trauma disorders in the extremities; infantile colic; enuresis; otitis media; asthma; and GI dysfunctions. (These will be cited below.) It has been estimated that the total number of chiropractic office visits nationwide each year is 250 million,⁵ with 94 percent of all spinal manipulations administered by chiropractors.⁶

What may not be as well-known as it should is that the practice of chiropractic includes a complete

physical examination and establishing a diagnosis. The aim is to establish biomechanical and neurological integrity through an assortment of noninvasive measures, many (but not all) of which are manual. These include manipulation; mobilization; soft-tissue and nonforce techniques; exercise and rehabilitation; and occasionally, such educational programs as nutritional counseling or wellness care.

With regards to back pain, the efficacy and effectiveness of these procedures have been reviewed repeatedly by carefully structured guidelines, developed both within the profession⁷ and by multidisciplinary panels representing the U.S.⁸ and no less than 10 other countries worldwide.⁹ According to Meeker and Haldeman, 73 randomized clinical trials comparing spinal manipulation with either placebos or other treatments in the management of back pain have been published in the scientific literature - almost all appearing within the past 25 years.² Meta-analyses addressing acute lowback pain^{10,11} have also been published, supporting the appropriateness of spinal manipulation in managing acute lowback pain. According to a systematic review by van Tulder: "There is limited evidence that manipulation is more effective than a placebo treatment."

Although contradictory results did not allow van Tulder to compare manipulation to other physiotherapeutic applications, there was no such uncertainty regarding chronic lowback pain. Here, van Tulder unequivocally states:

"There is strong evidence that manipulation is more effective than a placebo treatment....There is moderate evidence that manipulation is more effective for chronic LBP than usual care by the general practitioner; bedrest; analgesics; and massage."¹¹

Specific Concerns

The barrage of derogatory language in your broadcast, as described above, smacks of opportunism in the first order. Its statement that those chiropractors that perform leg-length checks actually attempt to elongate the bone is as absurd as it is fearmongering. It also creates the impression that the use of the "NervoScope" in thermography is widespread, when in fact it has been regarded as merely "investigational" by guidelines intended to represent the bulk of practicing chiropractors within the United States.⁷ Finally, your broadcast neglected to cite any number of studies published in a journal included in the *Index Medicus*, which, for over a quarter of a century, have indicated that chiropractic treatments not only match the medical alternatives for treating such diverse conditions as back pain;¹² carpal tunnel syndrome;¹³ cervicogenic, migraine and tension-type headache;¹⁴⁻¹⁷ dysmenorrhea;¹⁸ premenstrual syndrome;¹⁹ infantile colic;²⁰ enuresis;²¹ and even ear infections;²² but do so for longer durations after treatment and without the common, injurious or even fatal effects side of medications.

In light of Robert Baratz's emphatic suggestion that neck manipulations are "extremely dangerous" and the indication from the program's host that "20 percent of all strokes caused by artery damage *could* [italics mine] be a result of neck manipulation," your assertions are in serious need of retooling with more definitive information, as follows:

To begin, the term, "could" is conjectural only. As many as 68 everyday activities have been shown to disrupt cerebral circulation, 18 of which have actually been associated with vascular accidents but are decidedly nonmanipulative. Such activities would include childbirth; interventions by surgeons or anesthesiologists during surgery; calisthenics; yoga; turning the head while driving a vehicle; undergoing X-rays; treating a bleeding nose; stargazing; swimming; breakdancing; and

hairdressing positions.²³

- A review of several peer-reviewed published scientific papers puts the risk of cerebrovascular accidents (including stroke) associated with spinal manipulation at anywhere from one per 400,000²⁴ to one per 5.85 million cervical manipulations, the latter figure representing the most rigorously derived frequency.²⁵ On the other hand, the risk of death from the use of such medicines as nonsteroidal anti-inflammatory agents (NSAIDs), or from surgery to treat many of the same conditions as those managed by chiropractors is 400²⁶ to 700²⁷ times greater; yet warnings pertaining to the use of these particular options do not seem to have been mentioned by any of the individuals in your program. In fact, rates of spontaneous arterial dissections have been reported on an annual basis to be 1.5-3 per 100,000,²⁸⁻³⁰ substantially larger than most rates of severe stroke that have been associated with (let alone caused by) cervical manipulation.
- Death rates due to medication side effects have been estimated by the Institute of Medicine to range from 230,000-280,000 per year.³¹ Those caused by commonly used NSAIDs (such as ibuprofen) have been reported to approach an annual rate of 16,000³²-dwarfing any estimates of chiropractic fatalities by several orders of magnitude.
- Experiments with arterial models at the University of Calgary have shown that peak elongations of the vertebral artery during neck manipulations are at most 11 percent of the elongations that would be seen at the arterial failure limits; in fact, these elongations are consistently lower than those seen during routine diagnostic tests.³³
- Common musculoskeletal conditions routinely diagnosed and treated by chiropractors were shown in one study to have eluded first-year medical orthopedic residents, who failed a validated competency examination by two independent means of assessment.^{34,35}

Clearly, the chiropractic profession remains deeply concerned about and is actively researching the occurrences of any cerebrovascular accidents ever to occur with manipulations, which remains a phenomenon rarer than most activities in daily life. What is already becoming more and more apparent is that vertebral artery failures need to be regarded as the result of cumulative events, such as those I have mentioned above, rather than by what Robert Baratz and Alan Alda repeatedly referred to as "traumatic" and "twisting" maneuvers applied by chiropractors to the neck. What makes far more sense and is of far greater value to the patient is to continue to pursue productive research, ideally with cooperation between the chiropractic and medical professions.

The attainment of that goal is obviously hampered by your program. The fact that randomized clinical trials support both the efficacy and safety of chiropractic treatment - not only for managing back pain, but for headaches, carpal tunnel syndrome, infantile colic and bedwetting problems² - should be shared with your audience, if it is to be given truly meaningful medical advice on treatment options, the centerpiece of which should quite simply be the risk-to-benefit ratio. Guidelines of no less than 11 nations have recognized the effectiveness of chiropractic as a viable treatment option for millions of patients.^{8,9} Until this type of information can be freely shared with your audience as well, viewers are being seriously misled by the one-sided and ill-conceived presentation in your June 4 broadcast.

Your proliferation of the egregiously corrupted information that I have outlined is an affront to both the letter and spirit of publicly supported broadcasting, which one would have thought was originally conceived to be unencumbered by corporate interests, and thus uniquely suited to review topics of public concern in an objective and detailed manner. I would invite you to indicate to me whether you believe that the core support of PBS derives from any other principles and whether I

have overlooked anything in my assessment of public broadcasting's purpose - of which PBS is meant to be a proud example.

In the interest of responsible public broadcasting everywhere, to say nothing of public healthcare and the unwarranted damage that your remarks threaten to do to chiropractic care, I am requesting, in the strongest terms, your retraction or qualification of the June 4 presentation, and your creation of an opportunity to allow the most (rather than the least) responsible caregivers in a viable and scientifically documented healthcare profession to present their side of the story which, when the day is done, may, in fact, represent the majority opinion.³⁶⁻³⁸

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