Emergence of "pseudoscience"

The editorial[1] by Cathy Risdon and the article[2] by Cynthia Mathieson exemplify the burgeoning discipline of "pseudoscience" that has flourished during our attempts to adopt evidence-based medicine. In this discipline, a position or opinion is presented in an editorial, or increasingly in a "qualitative" peer-reviewed article, but the opinions are presented as experimentally verifiable facts. In the dark days before evidence-based medicine, such position papers were presented as opinion, and support was garnered by presenting logical arguments. Now the "facts" are simply stated and legitimated by a little superscript—the vaunted "reference."

Another technique for transforming speculation into fact is to use such words as "peer reviewed" or "evidence" or both. Dr Risdon uses all of these when she quotes O'Hanlan et al[3]: "Peer-reviewed evidence confirms that being gay or lesbian is not inherently (genetically, biologically) hazardous but that risk factors are conferred through societal, familial and medical homophobia."[3] Let's think about that. A homosexual is far less likely to propagate his or her genes than a heterosexual, thereby suffering genetic death! We certainly define other patient and medical practices that jeopardize reproductive viability as genetically hazardous. Likewise, are we to believe that the decimation of the gay population by AIDS has resulted from homophobia rather than the biologically driven sexual practices of gay men? And should we believe it simply because Dr Risdon quotes someone else who apparently does?

Other techniques designed to upgrade old-fashioned opinion pieces into science are jargon, word invention, and redefining existing words. Despite the availability of more than 600 000 common and technical words in the English language, this popular practice occurs monthly in peer-reviewed journals. These techniques are favoured in "qualitative" studies using "snowball" sampling and targeted at "heterosexist" readers. These readers must surely fit the broadened definition of "homophobes" presented by Dr Risdon. She informs us: "If your feelings toward a woman you know and like change for the worse when you discover she is lesbian, that's homophobia." It must be true. She gives a reference. What if my feelings for her change when I discover she is a Republican or she doesn't like cowboy films?

My point is this: despite recent enthusiasm for the scientific method, it is often simpler to write down what you think, why you think it, and then proffer some advice to readers. For instance, Dr Mathieson could simply state that after interviewing a nonrandom, highly selected subset of patients, she suggests that practitioners consider putting posters of gay couples on their waiting room walls. "Reflective" physicians will consider the impact of this on their other subsets of patients and decide to do it or not. The author should not attempt to make such recommendations look like scientific conclusions by adding scientific headings to the text and implying that a "content, thematic, and discourse analysis... of semistructured interviews" yields a precise measurement of anything. Until editors stop insisting that all articles they publish give the appearance of being evidence-based and scientific, this problem of pseudoscience will continue to grow.

—Mark A. Healey, MD, FRCSC
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References

1. Risdon C. Lesbian and bisexual women. Challenging our heterosexist assumptions [editorial]. *Can Fam Physician* 1998; 44:1567-8 (Eng), 1572-4 (Fr).
2. Mathieson CM. Lesbian and bisexual health care. Straight talk about experiences with physicians. *Can Fam Physician* 1998;44:1634-40.
3. O'Hanlan K, Cabaj RP, Schatz B, Lock J, Nemrow P. A review of the medical consequences of homophobia with suggestions for resolution. *J Gay Lesbian Med Assoc* 1997;1(1):25-41.

Response

Dr Healey's remarks demonstrate the common confusion of science and truth. The nature and quality and substance of the relationships we form with our patients are beyond the domain of the "experimentally verifiable." Into those relationships we invest layers of self that appropriately transcend our technical and cognitive skills as physicians. The potential of that transcendence is healing.

The words of the women quoted by Dr Mathieson are as "true" as their blood pressure levels, yet there is no place of absolute objectivity from which any of us can assess them. In relationships, we can be truly expert only about ourselves.

Randomized controlled trials do not teach us anything about discrimination, bigotry, or hate. The stories told by these women call us to examine more deeply our practices as physicians. It is surely true that we have failed them as both technicians and healers.

—Cathy Risdon, MD
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Response

Until I'd read Dr Healey's letter, I did not realize that evidence-based medicine was restricted to a specific type of research method or a particular type of data. Certainly this is not the position argued in a series of articles in the *British Medical Journal* (1995;311), devoted to discussion of the role of qualitative inquiry in health research. Interested readers might refer to this journal volume for a detailed discussion that challenges Dr Healey's view.

For those of us who study talk as primary data, Dr Healey's battle cry of "pseudoscience" would likely not garner much attention. However, what

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