

Editorial

Beware of Pseudoscience

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EDITORIAL

As I was walking through my local farmers' market choosing fresh fruits and vegetables, I was struck by the number of unsubstantiated health claims being made by the vendors; crystals that boost your immune system, water with a pH that will neutralize the acid in your body, teas that will detoxify your liver, cure cancer and prevent heart disease. I would simply ignore them if I didn't believe that these claims are irresponsible and could be dangerous and even deadly. How can clinicians address pseudoscience with their patients?

First, tell them about the potential harm. Harm can come from acute or gradual toxicity. Acute toxicity is more of a known with remedies that have been used for many years as part of traditional medicine. We know less about the acute toxicity of new remedies and treatments. Toxicity is related to purity, dose and body weight of the patient, attributes that are unregulated if the substance is not a medicine. There is also the possibility of gradual toxicity after a long latency period. This type of toxicity is more difficult to document through long-term use without well-designed clinical trials using real scientific methods. Tell them that some 'remedies' can interfere with medications or compromise the efficacy of conventional medicines that you have prescribed.

Second, you need to explore the behavior of adherence or compliance with your prescribed regimen from the patient's perspective. As a Health Education Specialist, I understand that patients' behavior is influenced by innumerable factors beyond their knowledge of disease, risk factors and treatments. Beliefs, whether they are true or false, are strong influencers. Past experiences, culture, gender, and perceived barriers also contribute. Human behavior is quite complex and usually cannot be changed by simply telling patients what to do. Since the Ottawa Charter of 1986, Public Health Educators have focused equally on the environment in which the patient behaves and their individual modifying factors.

Third, acknowledge your competition. Alternative remedies may seem like less expensive and less invasive options for your patients. They actually end up being a waste of money. Pseudoscientists who encourage patients to ignore sound medical advice are not only taking their money but delaying or replacing an effective form of allopathic medicine with false remedies may cost their health and their lives.

I do acknowledge the mind-body connection and the role of

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positive attitudes and relaxation on healing. This is undisputed. I practice yoga and my back is better for it and I probably benefit from the meditative aspects. I draw the line, however, when the litany of healing benefits goes beyond the evidence and the science. If the claim includes a "biofield of energy" that cannot be detected by contemporary technology, I am very skeptical.

I also am fascinated with many forms of non-allopathic medicine, their practice and theories of disease etiology and healing. There is so much to be discovered and allopathic medicine does not have all of the answers. After clinical trials show effectiveness, these remedies become part of medicine. This is how traditional medicines, especially herbal remedies become medicine, through clinical trials and evidence-based application.

It is difficult to compete with non-allopathic practitioners who guarantee cures while allopathic doctors are performing a differential diagnosis. Patients who are used to the surety of a healer who 'knows' immediately by simply looking in their eyes may see differential diagnosis as incompetence. You may need to address their concerns with assurances and explanations of the science and art of medicine. Be confident in the science of medicine.

On a study-tour of the health care system in India, I found that allopathic and Ayurveda doctors worked together. Patients were encouraged by their medical doctors to discuss the remedies that they had tried and the lifestyle behaviors that they were prescribed by the Ayurveda doctors. The open dialog enhanced the relationship between the doctor and patient. The patients didn't feel that they needed to hide their behaviors from the doctor.

So I encourage you to open up a dialog. It is important to be aware of the complementary or alternative treatments that your patients are using. Ask your patients about their beliefs and behaviors related to heart disease. Work together to explore the science and to dispel the claims of pseudoscience. Act as a resource for your patients who are seeking answers. Show them that the answers lie within the evidence and practice of the science of medicine.

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