

## ***Dietary Supplements: Ethical Considerations***

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Keywords: Dietary Supplements, Morals, Ethics

### INTRODUCTION

If you ever took supplements and didn't feel any better, it's probably because you didn't take any in the first place. Recently, The New York Times reported that four out of five of the top-selling herbal supplements at four national retailers — GNC, Target, Walgreens and Walmart — did not contain the ingredients listed.<sup>1</sup> St. John's wort, for example, did not contain any St. John's wort, but instead consisted of garlic, rice, and "a tropical root crop." Garlic, on the other hand, did not contain any garlic. Perhaps the supplement provider can add some St. John's wort to their garlic capsules as a means of ensuring quality control.

### ANALYSIS

This isn't the first time supplements have been revealed as missing key ingredients. In 2013, it was found using DNA fingerprinting that 59% of supposedly natural products tested contained DNA barcodes from plant species not mentioned on their labels.<sup>2</sup> Worse, thirty out of the forty-four of the products substituted their labeled ingredients with other, cheaper materials.

These results come as increasing number of Americans use such "natural" treatments daily.<sup>3</sup> Names once so foreign — ginkgo biloba, echinacea, Saw palmetto — that *gesundheit* seemed in order after enunciation have now become commonplace. The industry generates 25 billion dollars in sales annually.<sup>4</sup> While money does not grow on trees, it may very well be found in those capsules.

Mislabeled and missing active ingredients raise bioethical concerns. There is a lot of low hanging ethical fruit. Forget that such complementary and alternative medicine (CAM) lacks the long-term rigor of scientific study, that the therapeutic effect on particular populations such as lactating woman or children are not known, that the claims of efficacy remain largely unsubstantiated save for the occasional hearsay, and that many of the CAM providers lack significant medical training.<sup>5,6</sup> Forget that even if there is a causal link between one natural product and the abatement of disease, these macromolecules are often isolated in pharmaceuticals and modified for maximum potency.<sup>7</sup> Forget, too, that the stores of these compounds are at best heterogeneous due to variability in temperature and growing conditions,<sup>5</sup> that the batches will

inevitably by inconsistent, and that there is no formal standardization process in the US.<sup>9</sup> These are branching issues. They are not the root worry. Rather, the supplement industry's unsupported health claims are the real and serious worry.

With adulterants and immense variability among samples, any claim to cure or alleviate conditions is suspect, when even supported through a study or two. (For example: cisapride and probiotics have shown some benefits in gastrointestinal motility.<sup>10</sup> As a result, doctors cannot prescribe these alternatives. The risk of volatility and of not getting a compound with a known physiological cause-and-effect is too high. So too is the chance of harm. What of possible allergic reactions to or drug interactions with undisclosed ingredients? Allowing such substandard care is nothing short of hokum.

This is not to discount the noted placebo effect of such treatments. Nor is it meant to diminish the perceived exercise of patient autonomy supplementation may promote. Complements to traditional healthcare increase the appearance of more choice freedom of decision making. This is centrally an argument for the democratization of medicine. If dietary supplements were pure, tested, and well-studied, it's reasonable to say that such choices would be more than beneficial. They'd be necessary.

But this is not the case. Without the most updated information, without the guarantee of purity, and without the wide support of those sworn to provide health— doctors, nurses, and health service practitioners —CAM is grasping at straws at best. And hey, straw may already be in one's multi-vitamin.

Such concern over honesty in supplement labeling and effectiveness goes beyond mere ethical squabbling. Ethics are a reflection of what ought to be whereas law is a mirror of what is. Currently, there isn't. Legal regulation surrounding supplements is as unsubstantial as the supplements themselves: they're hollow, useless, and do nothing at all.

## CONCLUSION

It is important to note this discrepancy between the ethics and legal practice for without statutes, ethics is insufficient. A long-term legal solution is required. Recalling the defunct products is the first step. The next is moving away from the chemical-madness of the mislabeled natural craze. Secondary measures are too dangerous because as it stands, swallowing a pill does not waste away one's weighty worries, let alone one's waistline.

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<sup>1</sup> O'Connor, A. New York Attorney General Targets Supplements at Major Retailers. *The New York Times*. February 2015, < [http://well.blogs.nytimes.com/2015/02/03/new-york-attorney-general-targets-supplements-at-major-retailers/?\\_r=1](http://well.blogs.nytimes.com/2015/02/03/new-york-attorney-general-targets-supplements-at-major-retailers/?_r=1)>.

<sup>2</sup> O'Connor, A. Health Supplements are Often Not What They Seem. *The New York Times*. May 2013, < <http://www.nytimes.com/2013/11/05/science/herbal-supplements-are-often-not-what-they-seem.html>>.

<sup>3</sup> Market Watch. June 2013, < <http://www.marketwatch.com/story/americas-take-on-vitamins-survey-reveals-vitamin-intake-is-on-the-rise-but-healthy-lifestyle-habits-lag-behind-2013-06-26>>.

<sup>4</sup> Maynard, A. Are We Safe From Congress? Politics USA. November 2013, < <http://www.politicususa.com/2013/11/10/safe-congress-senator-orrin-hatch-politics-vitamins.html>>.

<sup>5</sup> Newmaster, S et al. DNA Barcodings Detects Contamination and Substitution in North American Herbal Products. *BMC Medicine*. 11: 222.

<sup>6</sup> Brulotte, J. Vohra, S. Epidemiology of NHP-drug Interactions: Identification and Evaluation. *Current Drug Metabolism*. 2008;9(10):1049–1054.

<sup>7</sup> Institute of Medicine (U.S.) Committee on the Use of Complementary and Alternative Medicine by the American Public Board on Health Promotion and Disease Prevention. *Complementary and Alternative Medicine in the United States*. Washington, DC: National Academies Press; 2005.

<sup>8</sup> Ernst, E. Cohen, M. Stone, J. Ethical Problems Arising in Evidence based Complementary and Alternative Medicine. *Journal of Medical Ethics*. 2004. 30, 156-159.

<sup>9</sup> Ernst, E. The Efficacy of Herbal Medicine:An Overview. *Fundamental Clinical Pharmacology*. 2005;19(4):405–409.

<sup>10</sup> Muller-Lissner, S.A. Treatment of Chronic Constipation with Cisapride and Placebo. *1987;28(8):1033–1038*.