# Can naturopaths deliver complementary preventive medicine?

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See related research article by Seely and colleagues on page E409 and at www.cmaj.ca/lookup/doi/10.1503/cmaj.120567

Complementary and alternative medicine is frequently and often legitimately criticized for failing to subject its treatments to scientific evaluation. Yet when scientific studies of such therapies do appear in leading medical journals, controversy typically ensues, and the journals themselves are often chided for having published them. The high-profile TACT trial of chelation therapy for secondary prevention of cardiovascular events,[1] and the strong reactions generated in response,[2] are but one very recent example.

*CMAJ* has not shied away in the past from publishing complementary medicine research that employs valid methods and produces information that is new, interesting and relevant to patient care. In this issue, we do so again. Seely and colleagues[3] report the results of a randomized trial showing that dietary and lifestyle interventions delivered by a naturopath, when added to usual care by a family physician, led to improvements in validated measures of cardiovascular risk compared with usual care alone.

As with many studies published in leading general medical journals, there is ample room to criticize this one, yet exposing research to public criticism from the wider academic community is one of the key roles of scientific publications. One opening for criticism is the choice by Seely and colleagues of a pragmatic study design. Pragmatic trials validate the effectiveness of real-world health care decisions,[4] but they often assume, rather than prove, the mechanisms responsible for such effects. Scientific proof that many naturopathic interventions truly do ameliorate disease is precisely what is lacking. In this study, the naturopathic care delivered to the intervention group had multiple components, delivered in a manner and to an extent left ambiguous. Although the biometric data presented suggest that benefits in the intervention group were related to improvements in lipid profile and blood pressure, we do not know what specific elements of care patients received that led to this effect, nor how patients changed their behaviours in response. Some might be tempted to use this trial to justify a conclusion that the nutritional supplements that formed part of naturopaths' recommendations have now been validated as effective for reducing cardiovascular risk, but that would be inappropriate and potentially misleading. We can learn nothing new from this trial about supplements or any other individual component of care, because the trial was not designed to allow their evaluation. Nor do we learn anything from this trial about whether concurrent naturopathic care affects usual care by a physician either positively or negatively, because the study did not collect any data about the nature of the medical care delivered.

The core components of the naturopathic intervention included several recommendations about diet and exercise that individually have been well validated scientifically. To the extent that these may have driven the observed cardiovascular risk reductions, one might say that the intervention worked because the naturopaths were, in effect, practising medicine. One might similarly argue that physicians could achieve the same results if they spent an equivalent of 4 hours per year dedicated to cardiovascular prevention with each patient. But that's the point: this doesn't seem feasible, given a family physician's responsibility for overseeing all of a patient's health issues, and the inability of many Canadians to obtain their own primary care physician based on current physician supply and distribution. In response, physicians already delegate many important aspects of medical care, such as diabetes education, smoking cessation counselling and asthma education, with good effect and in a manner that enhances rather than threatens their therapeutic relationship with patients. The results of Seely and colleagues[3] provide proof of principle that some aspects of cardiovascular prevention could feasibly and effectively be delegated to naturopaths.

Although science must always guide what health interventions should be delivered, who delivers them is a societal choice. But for physicians to be willing to partner with naturopaths as readily as they do with other allied health professionals, naturopathy will have to submit its practices to the same standard of scientific validation as other health disciplines. The present study provides a useful example for other complementary medicine researchers to follow in this regard. We encourage more such research to take place. Physicians should hold complementary medicine accountable to scientific standards equivalent to — but not higher than — medicine itself. Consequently, medical journals must be open to publishing complementary medicine research that succeeds in meeting these standards. *CMAJ*, for one, will continue to do so.

## References

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