Reviewer's report

Title: The characteristics, experiences and perceptions of naturopathic and herbal medicine practitioners: Results from a national survey in New Zealand

Version: 2 Date: 10 October 2014

Reviewer: Erica Oberg

Reviewer's report:

Major Compulsory Revisions

1. Better alignment of results and conclusions in abstract - would be good to include more specifics about the results of the "contributions to national health objectives" these are the most important findings, I think.

2. Would be useful to include the domains of survey in the abstract.

3. pg4, line 84: would be useful to see these percentages compared to something - rates in conventional medicine? in N/HMPs in Europe or North America?

4. pg4 paragraph starting 90: I'm not sure that research on the demographics and information literacy of N/HMPs translates into data on the "safety and efficacy of CAM modalities" It would be more accurate to state these descriptive data reveal information about the additions N/HMPs make to the healthcare workforce, or to compare the characteristics, perceptions and experiences of N/HMPs to other professions.

5. Methods are well described

6. Results: academic credentialling. The criteria of a Diploma or Advanced Diploma are unfamiliar outside of NZ. Could the authors describe what this level fo training represents in terms that would have internntional relevance? I.e. number of hours/years.clinical observations required/etc.

7. Discussion:

There appears to be a trend AWAY from N/HMP with the mean age being older and practice duration being >10 years. There is no discussion about interpretation of this trend? Where are the young N/HMPs?

8. The term "research" is used vaguely. I assume the authors mean published biomedical scientific research rather than conducting their own in-office research (later differentiated, but not early in the paper)? Would this primarily be conventional medical research or also mind-body or whole practice naturopathic research from the US or Europe? Would be useful to put the term "research" in context in the background.

9. Careful of the phrase to "validate practice" I believe the authors mean to "validate practices" employed by N/HMPs as, apparently, there is no existing research in N/HMP practice (the authors claim this is the first) and there is no reference to the literature-base regarding N/HMPs in other countries (i.e.
comparative demographics, practice and research attitudes).

10. Regulation section: is the definition and parameters of "Statutory regulation" readily understood by the international audience? This reviewer is unclear what is meant by that phrase.

11. The referral rates presented on page 9 would make more sense as percentages of patient load rather than actual numbers. I don't know if 12 per year is a lot or a little?

13. pg 13 line 317: ambivalence about research...this should be extended into a discussion of WHY there is ambivalence? Is it because there are few studies on the therapies employed? Or studies investigating the multi-modal or combination therapies commonly used? Or because the single agent RCT doesn't reflect real practice? This is the discussion section - the authors should try to provide an interpretation about why these attitudes exist.

14. These comments were written in order of reading the manuscript. The discussion is well arranged and answers many of the questions I had throughout reading. Thus, this suggests the manuscript would be strengthened with a rewrite of the introduction and abstract to summarize the range of domains and the international comparisons that are presented in the discussion.

15. Research section of discussion: I'm not sure that skills in actually conducting research has any association with being a highly skilled and effective clinician. The fact that the majority (60% reported skills in reading/interpreting research literature suggests a highly skilled workforce) The conclusion appears incongruent in its criticism of the lack of research fluency when in fact, the majority report competence and use of research. I would be interested to see a comparison of level of research literacy confidence among conventional practitioners or international N/HMPs. The reliance on manufacturers as a primary source of data is important, and I wonder how this compares with conventional practitioners reliance on detailing my pharmaceutical industry resources?

16. Also, it seems a major finding of this paper is the role of N/HMPs as part of the healthcare workforce that is (very) positively contributing to the National Health Objectives. In terms of public health policy, this is what is of interest to administrators, health payment systems. The authors may want to review Hawk, C., et al., Potential role of complementary and alternative health care providers in chronic disease prevention and health promotion: An analysis of National Health Interview Survey data, Prev. Med. (2011), doi:10.1016/j.ypmed.2011.07.002.

17. Also of public health interest are the reasons for N/HMP referral to GPs - i.e. the fact that "out of my skill set" is a common reason suggests a degree of self-regulation around safety that I suspect would be highly relevant to regulators and skeptics. This seems an important finding to highlight more prominently, perhaps in the abstract.

18. Conclusion: line 331. Nothing in these data told us about how popular N/HMPs are - the only cited data are old (2006). However, the fact than N/HMPs are contributing to National Health Priorities, the fact that the majority use scientific research in their clinical decision making, and that the vast majority interact with conventional medicine already via referral (albeit informal) already
suggest N/HMPs play a more significant role in the health of NZers than is routinely recognized. Areas of improvement include ongoing advancement of scientific research literacy, understanding the trend of fewer young N/HMPs, and improving the regulatory and payment structure to ensure N/HMPs meet a public health standard and can be more readily accessed by kiwis as N/HMPs appears to be contributing substantially to improving the nation's efforts to meet the National Health Priorities.

19. Table 1. This finding that all but 2 respondants found research useful for validating practiceS is remarkable. Doesn't match with the critical tone of lack of research competency in the discussion.

Minor Essential Revisions
1. wordsmithing:
   abstract: "wide range of issues" I think the authors mean "across multiple domains"
   "data" are plural. The data were/are

2. line 82, pg 3. Seems an incomplete sentence?

3. Table 3: not sure if I read this correctly - does this show that referral FROM GPs are to N/HMPs with far fewer years of experience? (approx 3 years). Does this represent a changing trend toward something about newer N/HMPs that would increase GPs confidence in referring to them?

Discretionary Revisions
1. Could tables 3-7 be put into a single table for comparisons? Not sure if this would be more reader-friendly; take into consideration
2. Would like to see a table presenting more detail about the National Health Priorities.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests