Reviewer's report

Title: Consumers' influence on pharmacists' professional responsibilities with respect to natural health products: A Study of Focus Groups

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Reviewer: Cathi Dennehy

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Review of Article: Consumers' influence on pharmacists' professional responsibilities with respect to natural health products: A Study of Focus Groups

1. Is question posed by authors well defined?
   Study purpose is well defined, but I believe the title could better sum up the intent if modified (see Discretionary Revision section)

2. Are methods appropriate and well described?
   Methods are appropriate but could be better described.
   The methodology has several limitations associated with it that should be addressed in the discussion section.
   
   The methods for determining the use of terms such as “most of” or “some of” a particular group being in agreement on a certain issue lacks clarity and should be better defined under methods. There are no definitions given in the methods to substantiate the use of these terms in the “Results” section. If the study authors have absolute numbers in response to certain questions (e.g. 30/47 pharmacists felt….) then this data should be presented.

   Was a series of standard questions posed to each focus group? If so, what were the questions and how were they worded? If a standard list of questions existed please consider inclusion as an appendix.

   A figure might be useful to help better define the themes, sub-categories and categories that were developed.

   If purpose of the consumer study group was to examine the views of the “new consumer” then methodology should address how this was defined and if consumer focus group attendees were asked to indicate if they considered themselves to fit this definition. If a minority, self-identified themselves as such, it is difficult to say that the views expressed are those of the “new consumer”.

3. Are data sound?
   Would like to see more descriptive statistics to support overall results versus use of individual quotes. The use of quotes is used throughout the results section as a means to substantiate overall conclusive statements and is very good from the point of illustration of an individuals' viewpoint here or there, but leaves the reader
to wonder if other study group participants were in agreement. The reader is led to believe that “some” or “most” were in agreement with certain statements, but these terms are not defined.

4. Does manuscript adhere to the relevant standards for reporting and data deposition?
   See suggestions under item 3 for data reporting. Would also limit discussion points that appear within the “results” section and move these to the discussion section. That is, move any author interpretative statements about the results to the discussion.

5. Are the discussion and conclusion well balanced and supported by the data?
   There is much to discuss with these study group findings some of which is in the paper but a lot of which is not. A major deficiency is the failure to discuss the “mis-information” that is available to consumers over the internet in relation to NHPs and the need for more evidence-based drug information resources for both consumers and health care providers. Examples of reliable resources (e.g. consumerlab.com, naturalstandard.com and Natural Medicine’s Comprehensive Database) should be highlighted.

   The discussion should also address the problems within the NHP industry that make it even more important for consumers to consult with pharmacists even if they consider themselves to be “new consumers”. Such deficiencies include: (i.e. lack of product regulation in the same fashion as prescription drugs, purity and potency variations, examples of adulteration with prescription drugs or heavy metals, misleading product claims which may not have been studied in an evidence-based manner, and risk of not only NHP-prescription drug interactions but also NHP-disease interactions).

   Discuss information resources used by study group attendees in relation to reference 7 which found that most common information resource for NHP was family/friends 28%, internet 19%, pharmacists 18% and then physicians 14%. Reference 7 also highlights that most Canadians do not fit the “new consumer” model with respect to NHPs with 45% stating they are unfamiliar with these products and only 36% stating they are familiar with them.

   Discuss the fact that whether or not we are talking about disease treatment options, prescription drug therapy or NHPs, the final decision regarding use is always based on the individual and not on the health care provider.

6. Are limitations clearly stated?
   There is a limitation paragraph at the end of the discussion.

7. Do author’s acknowledge any work upon which they are building?
   Not within the paper.

8. Is writing acceptable.
Yes, the writing style is acceptable and without major grammatical errors.

Discretionary revisions:
Consider title change to: “Consumer and pharmacist views of one another in relation to natural health products: A study of focus groups”.
Consider addition of an appendix with list of focus group questions and phrasing used.

Minor Essential Revisions:
Would advise addition of a figure to identify for the reader what the major categories, sub-categories and themes that were identified by consumers and pharmacists to add clarity to the results section.

Spelling error of “product” under 1’st sentence in background.

Remove the word “potentially” in sentence 2 of background as pharmacists “are” in a good position to provide consumers with evidence-based information on NHPs. Also at end of this sentence add “efficacy, side effects and potential interactions with prescription drugs and diseases” as pharmacists should advise consumers on all of these areas not just on interactions with drugs.

In background, it is stated that it is not clear that “consumers want this kind of advice”, which seems to go against the results of Ref 7. Case is made in background that “NHPs are widely available” and consumers are “informed” so how does this change pharmacist’s role? It is clear, however, that there is a great deal of misinformation related to NHPs on the internet and testimonials of family/friends while widely used are not an evidence based means of reaching an educated decision about whether or not a product is safe or efficacious. These ideas should be brought up in the background and more fully discussed in the discussion.

Double check use of ref 6 on bottom of page 4 as this statement does not seem to match the reference but rather ref 7.

Include a ref for statement regarding increased NHP curriculum in Schools of Pharmacy on page 5.

Last sentence page 6 describes expert knowledge being open to skepticism due to public awareness of uncertainties in science, but if the science is evidenced-based (e.g. randomized, controlled trials), this is about as certain as one can be that a product works or does not work and only a handful of NHP have these types of trials to support their clinical claims. Warrants discussion later on.

Major Revisions:
These are described under items 2, 3 and 5 above. Additional suggestions are as follows:
On page 10 under “results” it is stated that “many consumers” displayed characteristics of the new consumer. Define “many” and how many perceived themselves to be capable of making usage decisions based on their wide range of information resources. Characterize the information resources that they highlighted.

Paragraph 2 under the “majority” of consumers were well informed, define “majority” and change wording to “felt” that they were well informed as it remains to be shown whether or not they were or not.

Page 14: Ensuring patient safety: Consumer “expertise” in knowledge on NHPs is discussed. In discussion, it should be mentioned that typically, available information on NHPs does not lend itself to establishing an “expertise” in this area without consultation of evidence-based resources.

Page 19: Discussion of the “minimum responsibility” for pharmacists should include not only that NHPs may interact with prescription drugs, but that pharmacists should educate themselves on the efficacy, side effect profile and NHP-disease interactions as well.

Suitability for publication: I would accept the article for publication pending inclusion of the revisions described above.