Author's response to reviews

Title: Development of the adult and child complementary medicine questionnaires fielded on the National Health Interview Survey.

Authors:

Barbara J Stussman (stussmanbi@mail.nih.gov)
Christina D Bethell (bethellc@ohsu.edu)
Caroline Gray (cppgray@gmail.com)
Richard L Nahin (nahinr@mail.nih.gov)

Version: 2 Date: 6 September 2013

Author's response to reviews: see over
To the Editors of BMC CAM:

We thank the reviewers for their thoughtful comments concerning our manuscript under review. We have incorporated many of their suggestions as indicated below and feel the manuscript has been strengthened by the additions. However, it is important to clarify for the reviewers and Associate Editor that the development of these surveys was not performed within the framework of a planned research study (i.e. no hypothesis generated or tested), but instead followed the steps for survey development suggested for the addition of questionnaires to the CDC’s National Health Interview Survey (Questionnaire Design in the Cognitive Laboratory. DHHS Publication No. (PHS) 89-1076. NCHS; 1989, Series 6(1)). As such, as outlined in detail below, much of the data requested by a reviewer and the Associate Editor were never collected. Given the wide use of the NHIS by both researchers and policy makers in the United States, we feel it is important to provide information on the development process. Providing the steps, formal and informal, taken to develop these surveys will allow researchers to assess for themselves survey validity and soundness.

Author Responses to Specific Reviewers Comments

REVIEWER 1

Reviewer’s report:
Minor essential revisions:
Specific comments
Abstract:
1. The abstract seems adequate. However, the authors mention using quantitative analyses and focus groups. The first is a type of analysis and the second is a method, but it is unclear how the authors gathered the quantitative information and what this information consisted of.

Response to reviewer:
We have added more detail about the quantitative analyses to the abstract, methods, and results sections. Specifically, we explain that quantitative analysis of data from the 2007 child complementary medicine questionnaire included frequencies analysis of the prevalence of each therapy by age group (0-5, 6-11, 12-17), race/ethnicity (Hispanic, white non-Hispanic, black non-Hispanic, other non-Hispanic), disease status, and whether the child used any complementary therapy for reported health conditions. Also explored was how these prevalence rates varied depending on which definition of CAM was used (e.g., whether...
vitamins and minerals or prayer for health reasons were included in the
definition). These analyses led to the identification of sample size deficiencies,
appropriateness of given therapies among different age groups, and construct
validity of items related to complementary medicine use. These analyses have
been previously published (Ref 66) and, as such, are not presented in any detail
in this manuscript.

Introduction:
2. The authors should explain the rationale for asking questions on CAM in the
NHIS.

Response to reviewer:
The rationale has been added to the introduction section. We explain that the
first NHIS complementary therapy survey, fielded in 2002, was initiated in-part by
the NCCAM 5-Year Strategic Plan 2001-2005, which included the creation of a
Special Populations Program to, among other goals, support research of
complementary therapy use in racial and ethnic minority populations [1]. In the
early 2000’s, existing datasets for complementary therapy use in the U.S. lacked
a large enough sample to analyze use by minority populations. Given this deficit,
NCCAM made the decision to fund a large national survey of complementary
therapies. The NHIS was chosen as the vehicle for the complementary therapy
surveys in-part because of its large sample size, which allows for subgroup
analysis. Because of the large sample size and its oversampling of non-Hispanic
black and Hispanic persons, the NHIS provided much-needed information on
complementary therapy use in groups that were underrepresented in previous
surveys.

Major compulsory revisions:
Methods:
3. More detail should be provided on the methods. For example, the goals of the
various methods used, as well as their participants and their process, should be
described more thoroughly. This includes the goals of the literature review (e.g.
to identify types of CAM or other items to assess), the process used to obtain
feedback from experts and the general public (e.g. focus groups, individual
interviews, types of questions asked), as well as the characteristics of the
participants (e.g. which types of experts, sampling strategy). The authors should
use common guidelines for reporting the methodology of qualitative/mixed
methods studies (see Equator network website with list of reporting guidelines for
the various study designs).

Response to reviewer:
We have added additional information related to the goals of the literature
search, process used to obtain feedback from experts, and characteristics of the
participants. We explain that the goal of the literature reviews were to identify
previous surveys on complementary therapy use in order to help determine
which therapies to include in the NHIS questionnaire. These surveys were reviewed by the expert panels for the 2002 and 2012 NHIS when making recommendations to NCCAM and NCHS staff on what complementary therapies should be included in these surveys. For the 2007 NHIS, the literature review was used by NCCAM and NCHS staff to identify therapies used in U.S. national or regional surveys on complementary medicine that were published after January 5, 2001. In addition, for the 2012 questionnaire, the literature review was also employed to inform questionnaire design related to reasons and motivations for using complementary therapies, such as for wellness or well-being, as well as questions asking about insurance coverage.

We also explain that for each of the three in-person panels described in the manuscript (one for the 2002 NHIS and 2 for the 2012 NHIS) an open-dialogue process was used, with iterative summaries of high level input and priorities set throughout the meetings. All panel members were invited based on their published work and expertise, and were considered experts in their own field. No sampling method was utilized. The 2002 in-person panel consisted of a half-day phone call and numerous email exchanges, while the 2012 panels were day-long meetings. Each meeting began with introductions, background presentations and an explanation of goals and objectives for the session. Input was solicited from each member of the panel and careful attention was given to keep discussions focused and on-target. Time was allocated at the end of each meeting to reach consensus on conclusions discussed throughout the meeting. For the in-person 2012 panels, scientific notetakers were utilized to ensure thorough documentation. Finally, we have added Table 2 listing the specific expertise represented on each of the 4 expert panels.

However, as stated above, we want to clarify that the development of these surveys was not performed within the framework of a planned research study. The intent of this paper is to detail the steps, formal and informal, taken to develop these surveys so that researchers can assess for themselves their validity and soundness. The development involved both formal and informal steps. For instance, we did not use sampling methods in order to find experts, but rather, invited people for whom we knew their work. Similarly, we did not systematically collect data for the literature reviews, but read the articles in order to gain information and ideas. Also, the unsolicited input was not purposefully sought out, but came from various individuals and professional organizations during meetings held for other reasons. Because this feedback was unsolicited and non-systematic, data was not kept on who provided specific feedback and when. The use of mixed-methods was not part of an intentional research design, but was the result of utilizing resources that became available at the time of development. We have now clarified all of these points in the text.

4. Also, the headings used for the different steps of the development process are not very clear (possibly because it is ordered by survey year). The authors should number the various phases (like in the abstract) and label subheadings in
a more consistent manner. This will help the reader to understand the methods and results.

**Response to reviewer:**
We have numbered the section headings. Additionally, in order to make the manuscript easier to follow, we have added references to the corresponding results in the methods subsections.

**Results:**
5. More detail should be provided on the results. For example, the various results from the literature review (e.g. types of CAM or other items to assess), participants’ characteristics and how many experts and members of the general public have made recommendations.

**Response to reviewer:**
Please see answer to number 3 above.

6. (same as comment 1 but for the results section) Also, the authors mention using quantitative analyses and focus groups. The first is a type of analysis and the second is a method, but it is unclear how the authors gathered the quantitative information and what this information consisted of.

**Response to reviewer:**
Please see answer to number 1 above.

**Discussion and Conclusion:**
7. The authors seem too certain about the validity of the surveys considering the limits and lack of detail provided in the methods and results. More detailed methods and results will help ensure the appropriateness of the discussion and conclusion.

**Response to reviewer:**
While there is evidence that the CDC survey development process we employed leads to increased content validity, as requested by the reviewer, we have softened the language in the discussion about the survey validity and emphasized that the main purpose of the manuscript is to allow the reader to better make their own judgments about content validity.

**REVIEWER 2**

**Reviewer's report**

Minor Essential Revisions
• In the abstract, the authors note that cognitive testing of how participants understood the term “well-being” was undertaken. However, there is no background information provided in the introduction to give the reader a better
idea of why this was important to do. Given the links between CAM outcomes and other psychological and well-being related outcomes a brief paragraph on why this step was included before the methods are presented would be useful.

Response to reviewer:
We now explain that the topics of “wellness” and “well-being” were added to the 2012 NHIS during development of NCCAM’s third strategic plan, which placed an emphasis on use of complementary therapies to promote health, wellness and well-being. Having additional detail on wellness-related reasons, motivations, and outcomes for using complementary therapies will add to this knowledge-base.

Associate Editor’s comments:

Specific Methods
Explain how literature reviews were performed, their aims, search paradigm, etc.

Response to Associate Editor:
Please see answer to number 3 above.

Was feedback from scientific and practitioner communities planned or only unsolicited? How was it received? How was it evaluated?

Response to Editor:
Please see answer to number 3 above. We have clarified that feedback was unplanned and unsolicited.

Clarify and provide more detail on expert panels. Who were they/how they were selected?

Response to Associate Editor:
Please see answer to number 3 above. We have provided more detail on the members of the expert panels including Table 2 listing areas of expertise.

Clarify workshop methods, including how data were gathered and who the experts were. Also please explain why wellness was included.

Response to Associate Editor:
Please see answer to number 3 above. We have added more description of the process used to gather data during the workshops and why wellness was an important topic for NCCAM.

Results
This section is mainly descriptive but would profit from an analysis of the findings from the different processes and how they influenced the decision making process. Where are results for 2007 expert panels and workshops?

Response to Associate Editor:
As explained above, the surveys were not developed within the framework of a planned research study, but instead followed a standard CDC survey development process (METHODS section 1). Using the 2002 NHIS as an example, as we described in detail in the RESULTS section, the initial literature review (RESULTS section 1.a) was used by the expert panel (RESULTS section 3.a) for the 2002 NHIS to guide their recommendations to NCCAM and NCHS staff. The staff then used these recommendations to draft a questionnaire, which was then inserted into the cognitive interview process (RESULTS section 4.a). The cognitive interviews led to changes in the questionnaire, which were then retested through cognitive interviews. Although these steps took place sequentially within the overall development process (literature review, then expert panels, then draft initial questions, then cognitive testing, then refinement), the synthesis of these components to yield the final content was an iterative process. For example, after the expert panels, during the drafting of initial questionnaire items, we often discussed a particular series of questions with the expert panel member who focused the corresponding discussion during the workshop. Likewise, while refining the questionnaire based on results of cognitive testing, we often referred back to notes from workshops, consulted with expert panel members, or sought additional research articles to decide on the most appropriate solution. This detailed description of the development framework has been added to the manuscript (METHODS section 1).

In order to make the manuscript easier to follow, we have added references to the corresponding results in the methods subsections. We have also clarified in the manuscript that there were no expert panels or workshops convened for the 2007 development.