Worst Practices for Writing CME Needs Assessments: Results From a Survey of Practitioners

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This original research article examines ways to improve the quality and clarity of NAS. It is being published simultaneously by the Alliance for Continuing Education in the Health Professions (Alliance) in the Almanac *and by the American Medical Writers Association (AMWA) in the* AMWA Journal. *To provide context and interpretation of the research results pertinent to their respective readers, both publications have solicited commentaries from their audience to accompany the main article.*

ABSTRACT

Background and Aims: Needs assessments (NAs) are commonly developed to identify gaps in the knowledge, competence, performance, and confidence of health care providers and to guide the development of continuing education activities designed to remedy these deficiencies. Although best practices of NA development have been thoroughly described, little work has been done to evaluate poor or unprofessional practices that may compromise their value or validity. We sought to describe these practices with a survey primarily targeted toward individuals who develop NAs.

METHODS

Respondents to an annual survey were prompted to describe unprofessional or poor practices that they had observed in NAs developed by other writers. Responses were categorized by 2 independent reviewers.

RESULTS

A total of 104 individuals submitted responses to the survey. Of those, 67 included write-in responses describing poor practices. The most common poor practices were related to sources and referencing (19 responses), whereas other commonly cited poor practices included irrelevance or poor focus; organization, coherence, and readability issues; and plagiarism, fabrication, or bias. Specific quotations from write-in responses are provided in this article.

CONCLUSION

Despite available resources that outline and teach best practices in writing CME NAs, writers continue to struggle with referencing, organization, coherence, and readability. This may present an opportunity for the industry to consider new best practices that would encourage standardization and eliminate some of the poor practices described here.

We have been conducting a multiyear research project aimed at identifying best practices in writing and editing needs assessments (NAs) for continuing education in the health professions, including continuing medical education (CME). Compliance criteria promulgated by the Accreditation Council for Continuing Medical Education (ACCME) require all accredited CME providers to design educational activities to address deficits in knowledge, competence, or performance that underlie professional practice gaps.[1] Needs assessments are widely used by publishing and education companies within the accredited CME system to identify these deficits. For example, an assessment of need typically appears as a single section within a larger request for commercial support submitted to 1 or more pharmaceutical companies (Figure 1). The task of developing the NA often falls to an in-house or freelance medical writer, whereas proposal assembly, editing, and submission are usually handled by staff employees. As commercial support increases within the ACCME system (Figure 2), so does the number of NAs required to support a growing number of funding requests. Needs assessments can vary in length from less than a page to more than 10 pages depending on the number of gaps, the quantity of supporting evidence, and the resources available.
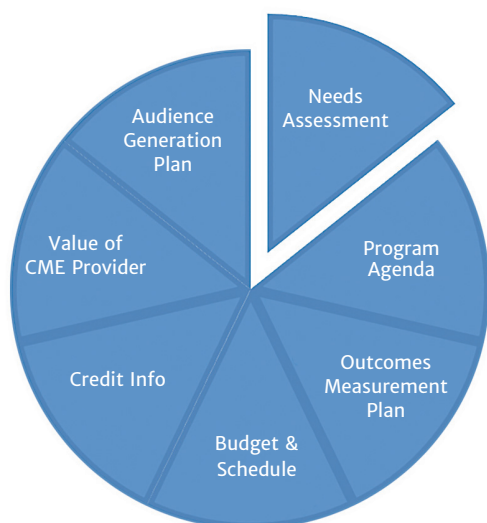
Figure 1. Components of a typical CME grant proposal. CME, continuing medical education.
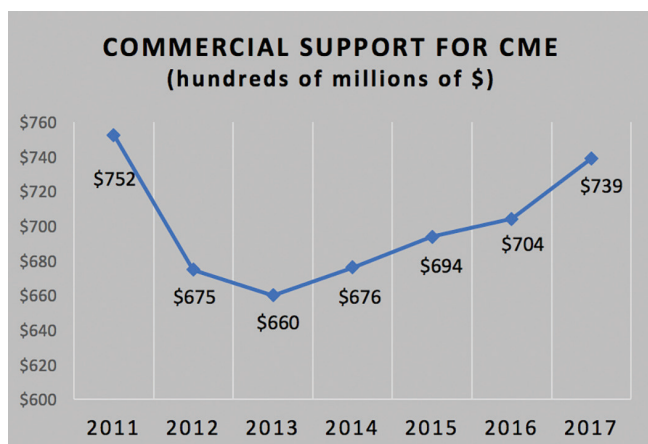

Figure 2. Growth of commercial support for accredited CME. CME, continuing medical education. *(Source: Accreditation Council for Continuing Medical Education)*

Our research into best practices in NA development originated in 2011 with a small pilot study analyzing a convenience sample of NAs written by various authors and collected from several sources, including a roundtable conducted at a freelance writers conference hosted by the Delaware Valley Chapter of AMWA. A considerable amount of variation was noted in the sources of evidence used in these NAs, how the evidence was presented, and how it was cited. Unwarranted variation in a health care–related process can be a sign of poor quality[2,3] and, as stated in the professional literature,[4] effective continuing education begins with a high-quality NA (Figure 3). Thus, we sought to explore this variation further in surveys targeted to writers of NAs.

These surveys have been conducted annually since 2014 for a total of 5 surveys to date. We have previously published posters,[5-8] workshop slide decks,[9,10] a journal article,[11] and a

downloadable tutorial[12] disseminating best practices. In 2018, for the first time, survey respondents were invited to describe any poor or unprofessional practices they had noticed in NAs written by others. This article presents our first discussion of "worst practices," based on analysis of those write-in responses.
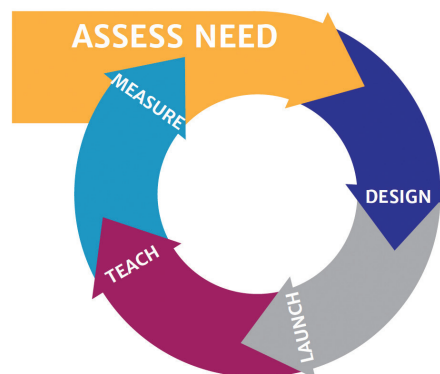

Figure 3. The continuing education cycle. *(Graphic courtesy of AMWA Journal.)*

METHODS

The fifth annual survey of best practices for writing CME NAs was developed in SurveyMonkey and promoted to fellow members of AMWA and the Alliance mostly via Twitter and LinkedIn, between October 5 and 19, 2018. The survey link was also sent via email to previous years' respondents and to anyone else within the authors' professional networks who had written at least several NAs and expressed interest in the past year. In addition, AMWA, the Delaware Valley Chapter of AMWA, and the Mid-Atlantic Alliance for CME helped promote the survey to their members.

The first 2 questions of the survey provided us with demographic data, and most of the other questions were designed to capture data on best practices of NA development. One open-ended question was included to elicit responses on worst practices: "What unprofessional or poor practices, if any, have you noticed while reviewing needs assessments written by others that might be appropriate for future survey research?" Responses to this question were entered into a spreadsheet and provided to 2 reviewers, including a past President of the Alliance (Robert L. Addleton, EdD, [Reviewer 1]) and the current President of AMWA (Cynthia L. Kryder, MS [Reviewer 2]). The reviewers were unknown to each other and worked separately to sort the 67 responses into categories defined for them in advance (Table 1). In cases in which a survey respondent combined ≥2 poor practices into a single response, the reviewers were instructed to select the category that best described the most salient problem.

Table 1. Worst Practices Sorted Into Categories

	Reviewer 1	Reviewer 2
Grammar Issues	4	2
Sources and Referencing	19	19
Outdated Information	7	4
Organization, Coherence, and Readability Issues	11	14
Plagiarism, Fabrication, and Bias	10	9
Irrelevance or Poor Focus	13	15
Other	3	4
TOTAL	67	67

RESULTS

A total of 104 survey responses were received. Respondents were roughly balanced between freelances (50%) and staff employees (44%), with freelances in the slight majority (Figure 4).

More than half of respondents (60%; N=104) had written at least 26 NAs in their careers; 44% had written more than 50. A total of 67 responses described poor practices. Some responses were simple and focused on a single poor practice, such as "*gap statements that are not supported by evidence.*" Other respondents included multiple poor practices, such as "*poor grammar/formatting, poor narrative structure, too much industry influence, lack of educational outcomes data or heavy reliance on outcomes data at the expense of current science.*" The spreadsheet with all 67 responses can be found in the Online-Only Exclusive (www.amwa.org/page/Members_Only_Issues). Results as sorted by the 2 reviewers are shown in Table 1.
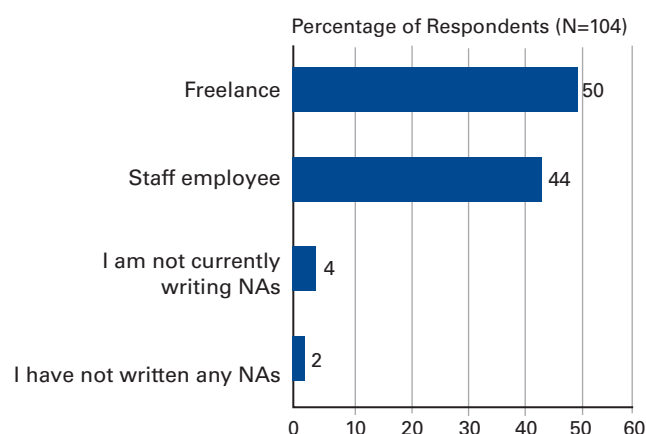

Percentage of Respondents (N=104)

Figure 4. Breakdown of freelances compared with staff employees among survey respondents.

The following verbatim responses are illustrative:

1. "*Atrocious grammar!*" (Grammar Issues)
2. "*Insufficient references,*" "*Lack of citation,*" and "*Not having strong enough support for gaps in education*" (Sources and Referencing)
3. "*Cites outdated research or fails to acknowledge new developments that discredit previous findings*" (Outdated Information)
4. "*Poor writing skills, e.g., organization, crafting sentences*" (Organization, Coherence, and Readability)
5. "*Plagiarism,*" "*Spinning the NA to favor the potential grantor's product,*" "*Making up faculty quotes, making up outcomes data*" (Plagiarism, Fabrication, and Bias)
6. "*Data dump that does not get to the actual gaps in clinical practice or why there is an unmet need*" (Irrelevance or Poor Focus)
7. "*Lack of examination of clinician attitudes/beliefs*" (Other)

DISCUSSION

This article briefly describes our first-ever analysis of worst practices in NA development in the 5+ years that we have been researching this topic. The most commonly cited problem involved sources and referencing. In 4 out of 5 previous years' surveys, respondents have reported that the medical literature review is the most essential source of evidence in the NA. Because the heart of any literature review is the reference list, deficits in sources and referencing may suggest an inexperienced, rushed, or sloppy writer has had trouble finding valid data, identifying sources, or compiling the reference list in a clear and orderly manner. These are all problems that the reader may notice if an editor does not identify and correct them. Conversely, even skilled and experienced medical writers may underperform if given too little lead time, low-quality templates to follow, or vague editorial direction.

In either case, a skilled and meticulous researcher who is able to work quickly and effectively with a client to overcome obstacles, identify a bona fide educational need, and marshal detailed evidence to support it adds great value to the process. For this reason, a face-to-face workshop or online exercise aimed at mastering the skill of conducting a high-quality literature review may be helpful. Based on survey respondents' comments, this workshop could also include instruction on proper appraisal of clinical study results, along with tips for extracting relevant data and using them to support statements of educational need. A separate workshop, aimed at assigning editors, medical directors, and other individuals who hire freelance writers, may also be useful; this session might include instruction on ways to work more effectively with freelance medical writers, and topics might include facilitating 2-way communication, setting reasonable deadlines, providing editorial direction and support, and incorporating evidence-based best practices into proprietary templates.

Reports of plagiarism, fabrication, and commercial bias are troubling, given past efforts by the ACCME, the US Congress, the Josiah Macy Jr. Foundation, the Institute of Medicine, and

other stakeholders to protect the integrity of continuing education in the health professions.[13] Independence is the cornerstone of accredited continuing education; without it, clinicians lose their ability to teach and learn free from commercial influence.[14] Thus, in light of our findings, it would appear that the ACCME's current effort to revisit this issue is necessary and timely. Spot-checking of a random sample of CME NAs would be illuminating and represents a potential further avenue for research.

There are several limitations to this study. First, this was not a random sample of writers. The respondent pool may have been biased toward members of the investigators' professional networks, most of whom live in the eastern United States. Unlike in the prior year, the 2018 survey link was not promoted by the Alliance staff to members nationwide, so the respondent pool may also be biased in favor of AMWA members. Second, the fact that reviewers could only assign a single category to a lengthy response containing ≥2 poor practices introduced an extra measure of subjectivity to the analysis. Third, the fact that only 2 reviewers were recruited makes it difficult to interpret the significance of the remarkable similarity of their analyses. Fourth, the survey contained only a single question about poor practices; as a result, we obtained descriptive examples of poor practices but did not delve deeper to identify reasons behind the poor practices or inquire about ways to address them. Fifth and finally, we obtained secondhand observations of problems noted by respondents at some point in the past; accuracy would have been greater if we had audited a random sample of NAs.

These limitations notwithstanding, some inferences may be drawn. Both reviewers were invited to submit comments. In a note accompanying her review, Ms. Kryder wrote,

> "Despite available resources and hands-on workshops that describe best practices in writing CME needs assessments, these survey data show that writers continue to struggle with referencing, organization, coherence, and readability. This presents an opportunity for the CME industry to adopt a structured template that writers can use when developing needs assessments, similar to templates already in use in the regulatory writing setting. Such standardization may eliminate some of the poor practices…and enable writers to more successfully develop an organized and readable narrative that identifies educational gaps that are clearly supported by evidence."

Author declarations and disclosures: The authors note no commercial associations that may pose a conflict of interest in relation to this article.

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