

Designing a Workshop on Literature Searching for School Nursing Policy Writing

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Abstract

Background

The National Association of School Nurses (NASN) requested a workshop on searching PubMed literature at their annual board meeting to support the writing and updating of the organization's position statements. An Associate partnered with the MEDLARS Management Section Training Lead to design and co-teach the two-hour workshop to be held in a hotel in Washington D.C.

Objectives

The goal of the project was to create a suite of instructional materials for teaching the NASN workshop, including a lesson plan, PowerPoint, handout, and survey questions for the post-workshop assessment.

Methods

The project consisted of gathering background information on the research needs of school nurses, learning about the National Library of Medicine (NLM) products and services, planning and designing the lesson, coordinating workshop logistics with NASN executives, and teaching the workshop.

Results

The project resulted in a PowerPoint and a set of documents to aid in the creation of future PubMed literature searching workshops. The supplementary material of this report also includes the post-workshop survey results from 28 participants commenting on the workshop's content and pacing.

Conclusions

The NASN board members were appreciative of the workshop and noted both in-person and on the assessment survey that they found the PubMed literature searching lesson very helpful. The Associate got experience designing a workshop from scratch while also learning about searching PubMed literature and the research needs of school nurses.

Introduction

The National Association of School Nurses (NASN) is a national professional association with a mission, "To optimize student health and learning by advancing the practice of school nursing" (About 2018). The association has a board of directors with one representative from each of the fifty U.S. states that serve for a term of approximately four years (Board of Directors 2018). At the annual board meeting the board of directors update several the association's position statements to match current literature and policy. To assist board members in their position statement literature search, NASN requested a two-hour in-person workshop on PubMed for about forty participants at their upcoming annual board meeting in Washington, DC on January 26th, 2019.

Typically, the National Network of Libraries of Medicine (NNLM) staff teach in-person and online training sessions covering National Library of Medicine (NLM) products, but due to

the proximity of the NLM to Washington D.C., the training request was referred to the NLM MEDLARS Management Section (MMS). MMS holds a policy to offer training on NLM products and services to groups that have a broad impact or reach, such as librarians, trainers, or leaders, which includes the NASN board of directors.

To provide instruction on using PubMed to NASN board members, the MMS Training Lead partnered with an Associate Fellow to design and co-teach the workshop as a Fall Project.

Objectives

The objective of the “Designing a Workshop on Literature Searching for School Nursing Policy Writing” project was to design and co-teach a two hour in-person workshop for about forty board members of the National Association of School Nurses. The workshop’s goal was to assist the board members with literature searching in PubMed as they update the organization’s positions statements. The learning goals of the workshop are as follows: “by the end of the workshop NASN participants will know how to conduct a basic search in PubMed, manage APA citations for their position statements, and know where to find public health statistics.”

Project objectives

The Associate’s role in this project was to support the MMS Training Programs at NLM by designing the lesson goals, lesson plan, presentation PowerPoint, a handout for participants and assessment for the workshop, along with co-teaching the workshop with the project sponsor. To prepare for the workshop, the Associate also conducted a variety of interviews to better understand the research needs of nurses and how nursing literature is indexed in MEDLINE.

Methodology

The Associate’s process for doing the project can be split into 5 steps:

1. gathering background information from professionals about the research needs of school nurses
2. learning skills from NLM staff members to enhance the workshop
3. planning and designing the workshop
4. coordinating with NASN executives about workshop logistics
5. teaching of the workshop

The Associate began by reaching out to several librarians who support the research needs of nurses. The Associate talked with two nursing liaison librarians at the University of North Carolina at Chapel Hill, one of the Regional Medical Library (RML) executive directors,

and the former NLM Associate Fellow who created the PubMed for Nurses tutorial on the NLM website. The Associate also contacted a school nurse to learn more about her role in the school and how she finds out about new research in her field. (The questions for the nursing liaison librarians and the school nurse can be found in Appendix A and Appendix B.)

Secondly, the Associate met with NLM staff members to learn skills to support the teaching of the workshop. The Associate learned how to search for public health data from a National Information Center on Health Services Research (NICHSR) staff member and how to implement an evaluation method to assess the workshop from the MMS Training Lead. Additionally, the Associate met with an NLM indexer who indexes nursing journals into MEDLINE to learn about frequently used nursing MeSH terms.

The Associate then planned the workshop by reading the previous position statements approved by NASN in 2015 that would be updated by the board members at their upcoming meeting. This allowed the Associate to better understand the position statement topics and types of literature cited in the past. Working with the MMS Training Lead, the Associate created learning objectives, a lesson plan, a PowerPoint, a handout, and assessment questions for the workshop.

Additionally, the Associate and the project sponsor held phone meetings with a member of the NASN executive staff to coordinate the logistics of the workshop and make sure that the topics taught would meet the needs of the NASN board members as they updated the position statements.

Finally, the Associate and the MMS Training Lead held a practice version of the workshop for the other 2018-2019 Associate Fellows and the Fellowship Program Coordinator, receiving helpful feedback on pacing and content. The day before the workshop the Associate and the MMS Training Lead visited the Washington D.C. hotel hosting the NASN board meeting to practice setting up the computer and meeting the hotel audiovisual tech staff. On Saturday, January 26th, 2019 the Associate and the MMS Training lead co-taught the two-hour workshop in a hotel meeting room in Washington D.C.

Results

The workshop went smoothly and was well received by the NASN board members. About forty school nurses attended the workshop, sitting among five tables with each group working on one of the position statements to identify research questions, determine appropriate keywords, and then search PubMed for literature.

At the end of the workshop twenty-eight participants filled out the assessment survey on Qualtrics. Answers for the question “What part of this course was MOST helpful?” include, “Learning how to use Pub Med and MeSH terms” and “Hands-on practice with specific topics.” Answers to “How could this course be improved?” include multiple requests for a longer workshop and for the PowerPoint slides to be provided before the workshop.

Hopefully, the project will influence literature cited in the soon to be updated position statements from the National Association of School Nurses. These position statements express the recommendations of the association and influence school nurses across the United States.

The project also resulted in the creation of instructional materials that can assist with future workshops on PubMed literature searching. The instructional materials include a lesson plan, PowerPoint slides, handout, and a list of assessment questions. (All instructional materials and the assessment survey are located in the appendix or as supplemental material.)

Discussion

The teaching materials created through this project can support future instruction of PubMed literature searching, especially serving as an outline on how to design a workshop centered around a specific research activity.

The assessment provided by participants in the post-workshop survey shows that participants found the workshop helpful and even wished that it had been longer and provided more in-depth research information.

During the workshop the Associate noticed that many of the participants were new to using Google Docs and required extra time to get acquainted with the functionality of working in a shared document. Additionally, instead of having the whole workshop work in one Google Doc, each of the five groups created their own Google doc to record their research questions, keywords, and citations (see Appendix D for an example of a page in the workshop Google Doc.)

For the Associate, the project provided a rich learning experience on instructional design, searching medical literature, and working with an outside organization. The project sponsor allowed the Associate to lead the workshop design, providing guidance and assistance throughout the process. The MMS Training Lead also taught the Associate about the Kirkpatrick Evaluation Model to assist in the creation of assessment questions and provided numerous PubMed searching tips. The advice shared by the project sponsor from her extensive instruction background enhanced the instructional design process and the Associate plans to use this knowledge in her future career.

The Associate, by observing the project sponsor, learned skills for collaborating and communicating with an outside organization. During the project all communication with NASN leaders was via phone or email and the Associate saw the importance of clearly structuring long emails and numbering questions that you need answered by the other party.

When considering what she would have done differently, the Associate wishes she knew more about searching PubMed, especially using MeSH terms so she could have answered advanced searching questions, which during the workshop she had to turn over to the MMS Training Lead. The Associate could have obtained some of this knowledge through watching PubMed tutorials, especially the entire set of *PubMed for Librarians* webinars.

Recommendations

From designing and teaching this workshop several recommendations arise regarding the preparation of teaching material, communication with outside organizations, and meeting the needs of participants during a workshop.

First, when preparing the learning outcomes and lesson plan, the Associate found it extremely helpful to reach out to librarians who work directly with nurses and understand the main topics and journals in the field. Additionally, NLM staff who work directly with the NLM products highlighted in the workshop provided key information to include in the lesson. For future projects, the Associate recommends reaching out to subject librarians and NLM staff to ensure a well-rounded understanding of the topics and products covered in instruction.

Secondly, when communicating with members of another organization about a workshop, it is important that those conversations occur early in the planning process and continue as the event date approaches to ensure that material covered matches the needs and expectations of the organization. One way to clarify questions posed in an email is to place them in a numbered list, so the recipient can clearly see what information is requested from them.

Additionally, instructors need to be flexible when teaching and be willing to adjust the lesson to accommodate all participants. When conducting the workshop, the Associate noticed that some of the NASN board members were new to Google Docs and slowed down a section of the lesson to give participants time to receive help from their peers and the instructors on using Google Docs.

One possibility of future research related to this project is an exploration into the research needs of school nurses and how RMLs can address those needs. One way could be through researching how many K-12 schools have membership in the NNLM and see if the school nurses at those schools are aware of NNLM services.

Reference List

About [Internet]. National Association of School Nurses. 2018 [cited 2019Feb1]. Available from: <https://www.nasn.org/about-nasn/about>

Board of Directors [Internet]. National Association of School Nurses. 2018 [cited 2019Feb1]. Available from: <https://www.nasn.org/nasn/about-nasn/leaders/directors>

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Cathy Smith for providing insight on how nursing literature is indexed in MEDLINE

And Kathel Dunn and the other 2018-2019 Associate Fellows for their continuous support and encouragement throughout this project.

Appendix

Appendix A

Questions for university nursing liaison librarians

1. What education tract is typical for a [insert university] nursing student? What are the different level of nursing degrees?
2. Do the nursing students you work with typically have previous experience searching databases?
3. What journals are most central/influential to the nursing profession?
4. What are common research topics for your nursing students?
5. Do you have any experience working with nursing students who plan to work in K-12 schools?

Appendix B

Questions for a school nurse:

1. Can you tell me briefly about the school you work in? (Public or private, age of students, are you a solo nurse?)
2. Are you a part of the National Association of School Nurses or another professional group?
3. In what ways do you stay up to date with the nursing field? (CE classes, reading journals, talking with other school nurses?)
4. Where do you go for information if you have a question regarding pediatric health care?
5. What is the biggest challenge you face at work?

Appendix C

Lesson Plan

What: NASN Board Members Workshop

When: January 26, 2019 3:00 – 5:00pm

Where: National Ballroom A

Westin Washington, D.C. City Center 1 400 M Street NW, Washington DC 20006

(202-429-1700)

<p>Learning Goals:</p> <ul style="list-style-type: none"> • How to conduct a basic search in PubMed • Managing citations specific to the position briefs • How to find public health statistics 	<p>Materials Needed:</p> <ul style="list-style-type: none"> • Handouts • Instructor laptop • Table sign for each position statement
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Topic	Time	Instructor	Activity
Introduction	2 min	Cecelia	<ul style="list-style-type: none"> • Welcome participants • Introduce ourselves • Go over agenda and learning goals

Searching PubMed – participants will follow along on laptops during this portion

Topic	Time	Instructor	Activity
What to Search? The Research Question	10 min	Cecelia	Immunizations position statement as example <ul style="list-style-type: none"> • Lead discussion on issues around that topic • Demonstrate how to turn that into a searchable research question • Lead discussion to come up with key words
Accessing PubMed	3 min	Cecelia	What is PubMed? Demonstrate how to get to PubMed using a search engine Activity: Participants access PubMed homepage on their laptop

The Basic Search	10 min	Cecelia	<p>From research question, selecting words or phrases to search.</p> <ul style="list-style-type: none"> • Be specific • No punctuation and capitalization does not matter • No quotes or AND/OR <p>Discuss how PubMed cannot decipher natural language questions, must use terms or phrases</p> <p>Demonstration:</p> <ul style="list-style-type: none"> • Show searching for keywords related to immunizations • Explain the breakdown of a PubMed results page • Discuss how to use different limits to search for review articles, ages, and publication date
The Fancy Search and mapping terms	10 min	Kate	<p>Demonstrate more advanced searching methods including:</p> <ul style="list-style-type: none"> • Using NLM vocabulary (MeSH terms) • Search Details when searching "Most Recent"
Citations	5 min	Kate	<p>Demonstrate how to access PubMed Labs for APA citations ("cite" button)</p>

NASN

CINAHL	15 min	Someone from NASN	Presentation on CINAHL Access
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Continue NLM Presentation

Public Health Data	5 min	Kate	<p>CDC Morbidity and Mortality Weekly Report (MMWR)</p> <ul style="list-style-type: none"> • Statistics from here used in several previous position statements • Note more info on finding public health data on the handout/Google Doc
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Workshop

Topic	Time	Instructor	Activity
Logistics	5 min	Cecelia	Assign research topics for the workshop Confirm access to group Google Doc for preserving search terms and citations
Set Up	5 min	Cecelia	<ul style="list-style-type: none"> • Have participants sit in 5 groups • Provide access to Google Doc with 5 position statements each listed on their own page • Assign each group a position statement • Explain workshop instructions
Discussion	5 min	Kate	Groups discuss issues around their topic <ul style="list-style-type: none"> • Participants write down research questions and keywords in Google Doc
Searching	30-40 min (Check-In at 15min)	Cecelia and Kate	Instructors wander the room assisting with participants as they search. Have a Word doc open with “You have until _____ to search” At 15min bring the class back together to address common questions Goal: for an instructor to check-in/assist every participant
Wrap-Up Discussion	5 min	Cecelia	Allow for participants to share what they are finding/having trouble with. Instructors address common challenges faced by the group
Getting Help	5 min	Cecelia	Point to tutorials for searching PubMed and public health data

			<ul style="list-style-type: none"> • Links on the handout and in the Google Doc <p>Where to go:</p> <ul style="list-style-type: none"> • School media specialist • Public library • University library
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Assessment

Assessment	5 min	Cecelia and Kate	<p>Online questionnaire provided through Qualtrics and accessed through link on the Google Doc</p> <p>Assessment questions:</p> <ul style="list-style-type: none"> • What percentage of the content of this class was new to you? • What percentage of the content of this class will you use? • In addition to researching position statements, how else might you use what you've learned? • Please rate your expertise in the course subject: • I found the pace of the workshop: • I found the course engaging: • What part of this course was MOST helpful? • How could this course be improved? • Are you likely to recommend this course to a colleague? • Please share any other comments you have about this course. • If NLM provided additional training in the future, what would it be?
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Appendix D

Example of a page from the Google Doc used in the workshop

Individualized Healthcare Plans: The Role of the School Nurse

- What are the important, current issues around the topic?
- Selecting one particular issue, what is a specific question that research could answer?
- Who might do research on this issue? How might they publish their results?
- What are the main concepts related to this question? What are useful terms or keywords?

Position Statement from 2015 <https://www.nasn.org/nasn/advocacy/professional-practice-documents/position-statements/ps-ihps>

Research Question:

List keywords or phrases searched:

Find 3 to 5 Citations:

Provide a sentence or two for each explaining how it could be useful in researching or supporting the position statement.

National Association of School Nurses
Workshop: Conducting a Literature Review

January 26, 2019
U.S. National Library of Medicine

Links

- PubMed - <https://www.pubmed.gov/>
 - Database to search medical literature
- PubMed Labs - <https://www.ncbi.nlm.nih.gov/labs/pubmed/>
 - To get APA citations for PubMed articles
- CDC Morbidity and Mortality Weekly Report - <https://www.cdc.gov/mmwr/>
- CDC Data - <https://data.cdc.gov/>

Where to go for Full Text

- Your school library media specialist
- Your public library
- Local university library

Additional Resources

- PubMed Tutorials - <https://learn.nlm.nih.gov/documentation/training-packets/T0042010P/>
 - Select from Quick Tours
- PubMed Help - <https://www.ncbi.nlm.nih.gov/books/NBK3827/>
- Searching for Health Statistics on the Web - https://youtu.be/5C8_X3eWV3Q
- Tutorial for finding statistics - <https://www.nlm.nih.gov/nichsr/usestats/>



Appendix F

Questions on the post-workshop survey

1. What percentage of the content of this class was new to you?
2. What percentage of the content of this class will you use?
3. In addition to researching position statements, how else might you use what you've learned?
4. Please rate your expertise in the course subject:
 - Rate from "novice" to "expert" on a 100-point scale
5. I found the pace of the workshop:
 - Select from a list of options ranging from "Extremely fast" to "Extremely slow"
6. I found the course engaging:
 - Select from "Strongly agree" to "Strongly disagree"
7. What part of this course was MOST helpful?
8. How could this course be improved?
9. Are you likely to recommend this course to a colleague?
 - Rate from "Not at all likely" to "Extremely likely" on a 10-point scale
10. Please share any other comments you have about this course.
11. If NLM provided additional training in the future, what would it be?