

Keys to Knowledge: Searching and Reviewing the Literature Relevant to Chaplaincy

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The literature review is a key component of professional journal articles and requires a thorough review of the relevant literature. The authors highlight some of the mistakes made by inexperienced authors and provide a step-by-step guide for conducting an electronic literature search using PubMed as an example.

MANUSCRIPTS SUBMITTED TO SCIENTIFIC and professional journals have to make a compelling case for why they should be published. Some people may think they can convince an editor to publish a paper by extolling its importance in a cover letter submitted with the manuscript. However, the case has to be made in the manuscript itself and must begin immediately.

The first paragraphs of a manuscript introduce the reader to the topic. Thus they need both to excite and to inform the reader. Whether one is writing an article about a research study, an educational program or a clinical practice, one needs to start with a literature review. This review must summarize what is known about the topic, and why it is important to the field, to the profession, and to the reader. In order to produce a solid introduction substantial time must be devoted to a review of the relevant literature. The scope of the literature review should be as comprehensive as possible to make the case for the importance of the topic and the value of the author's contribution to the field via this particular article. Most importantly, the literature

review must sufficiently inform the reader about the topic being addressed.

Literature review mistakes

A common mistake among inexperienced authors is to state the purpose of the paper in the introduction without providing sufficient background information to put the topic in context. The authors may begin with "A survey was conducted to examine the role of chaplains in different types of hospitals," and proceed to state why they think this is important. However, the introduction may not provide information on what already is known about the role of chaplains, based on the research of others. A thorough paper will review past research and other articles about chaplain roles and functions and summarize them in the introduction. While one or two sentence introductions are rare, one encounters them occasionally. Sparse, insufficiently informative literature reviews are all too frequent, especially among first-time authors.

Authors sometimes work within too narrow of a context, as in the following example: "Solicitation of organ donations in our hospital system traditionally has been conducted by the social work department. That responsibility was recently transferred to the pastoral care department. This article describes the role of chaplains in organ donation in our hospital." How common is it that social workers or chaplains are soliciting organ donations? Why is this topic important?

When we conducted an electronic literature search of Medline, we identified nine articles on organ donation and pastoral care. The authors of such a paper might use pertinent information about the issues and/or problems about the role of chaplains in organ donation from these nine articles in their introduction. In another search, we identified well over 100 articles on organ donation and religion. Authors could surely provide readers with information about the religious beliefs about organ donation, and probably research findings on ethical issues related to organ donation and religion.

Usually, it is best to present general information about a topic before discussing more specific issues. If one's topic is about individuals with a particular disease or problem, one should begin by describing the problem and the scope of the problem. How common is it? In epidemiological language, what is the prevalence or incidence of the problem?

Another common mistake is simply to state that no relevant literature exists to discuss in the introduction, e.g., "An electronic literature search yielded 17,000 articles on deafness, but none of them were about pastoral care." Though authors usually do not make such an explicit statement, it is fairly common to see statements to that effect in pastoral care and chaplaincy manuscripts. Having done this exact electronic search ourselves, we know this statement is literally correct; however, this does not mean there is no relevant literature. Some of these articles may be very relevant to pastoral care with deaf individuals even though they do not discuss how to provide pastoral care to this group. It is up to the authors to make the connection between what is known—even if it is tangential—and how it relates to the issue(s) they want to address. Where there really is limited research on the question being examined a qualified statement that refers directly to the topic being addressed is appropriate.

In a similar vein, authors sometimes mention the types of articles they encounter while searching the literature, or even allude to certain ones, without citing them because they do not consider them relevant. This is not appropriate in a literature review. While we certainly do not think authors should cite irrelevant articles, if authors refer to articles in their narratives, they should include the citations so that the journal editor and reviewers may judge their relevance for themselves. Further, when authors claim that there is no literature on a topic, they may not have searched hard enough or broadly enough. There may be relevant articles that do not explicitly mention chaplaincy and thus are not identified through electronic searches.

The most frequent mistake in literature reviews is to make statements about people, things and the world in general without citing supportive evidence. Whenever claims or research findings are presented, it is imperative that they are properly referenced in the body of the text and cited properly in the reference list.

Although we have concentrated on problems related to providing the reader with too little information, there are occasions when authors include *too much* information. A common example of this is when authors use quotes to prove a point rather than summarizing the previous findings. This may happen when an author tries to turn a thesis, dissertation or other scholarly paper into a journal article. The problem arises because the purpose of the literature review differs in these two types of writing. In a thesis the literature review demonstrates the student's depth and breadth of knowledge of a field. In a journal article it briefly informs the reader of what already has been written about an important issue.

Electronic search engines: The tools for literature reviews

Most readers of *Chaplaincy Today* probably are familiar with a number of Internet search engines, e.g., Ask.com, Bing.com, Google.com, Yahoo.com. Unfortunately, we have found none of these, nor similar engines, to be useful in conducting literature reviews for scientific or professional journal articles. Google Scholar (<http://google.scholar.com>) is useful for identifying journal articles

in many fields, including pastoral care and chaplaincy, but it is rare to find a copy (HTML or PDF file) of an article online through a Google Scholar search.

Indeed, finding the actual articles identified by a search is a major problem no matter what search engine one uses unless one has a university affiliation or one's institution subscribes to a database company that provides the full-text of published articles, such as EBSCO.com or ATLA.com. EBSCO has many searchable academic databases that cover a variety of fields, including health care and religion. The ATLA Religion Database of the American Theological Library Association covers such topics as the Bible, church history, pastoral ministry, religious studies, theology and world religions.

Members of professional organizations may have the ability to search for articles in their own professional journals, such as *Chaplaincy Today*. However, literature reviews based on searches of only a few journals generally are considered to be too narrow for a scholarly article.

Probably the most useful online database for health care chaplains is PubMed (<http://www.ncbi.nlm.nih.gov/pubmed/>). It is free, it is simple, and it has powerful search capabilities. Further, the number of full-text articles available for download is constantly increasing. The most important part of PubMed with regard to literature searches is the Medline database, which contains biomedical journal citations and abstracts (or summaries of articles) created by the US National Library of Medicine (NLM). It contains the citations for, and abstracts of, articles published since 1946 in over 5,000 U.S. and foreign journals in chaplaincy, medicine, nursing, pastoral care, psychiatry, psychology, public health and a range of other fields.

Conducting PubMed literature searches: Keys to successful searches

As with other databases, searches may be conducted in PubMed by title, author(s), journal name, year or subject matter, among other things. We have found that searching by an article's title often yields poor results, but other types of searches are very useful. Unless one is looking for a particular article or a particular author, the subject matter searches are the most productive for several reasons.

First, one may do a very simple search. Go to <http://www.ncbi.nlm.nih.gov/pubmed/>, type a word in the search box and click "search." For this article, we accessed the site in mid-March and typed the word **anxiety**. (Boldface is used throughout this article to indicate search terms.) A total of 120,185 records or citations were identified by the search; 96,022 of these contained abstracts, and 13,013 provided direct access to the full text of articles. If one accessed PubMed today and typed **anxiety**, the number of records identified by the search would be higher because this site is continually updated.

The second reason PubMed is so useful is that the records are indexed with NLM's "Medical Subject Headings" (MeSH). These MeSH terms provide standardized subject headings that help users perform better searches. Academic databases of journal articles in different fields and journals themselves usually call such terms "key" words.

The first step in locating articles about any topic is to conduct a search of the MeSH database in PubMed. It may be accessed directly from the PubMed home page by clicking "MeSH Database" under the column heading "More Resources" on the right side of the PubMed homepage below the search box. It also may be accessed from the dropdown menu above the search box. Typing the word anxiety and clicking search shows that anxiety is a MeSH term, which means it is an official subject term. This means one may search for anxiety in three different ways.

In the simple search we conducted, PubMed looked for any mention of anxiety as a text word in the abstract, title or elsewhere. Because anxiety happens to be a MeSH term, it also searches within this category. As mentioned above, a simple search of the word, or term, **anxiety** identified and retrieved 120,185 records. When the search phrase **anxiety [mesh]** is used, PubMed only

searches those records where anxiety is coded as a significant aspect of the article. When we used this search phrase, PubMed retrieved 29,170 records. The search may be narrowed further by using the search phrase **anxiety [majr]**, which restricts the search to articles in which anxiety was one of the main topics. This search retrieved 21,195 records.

Typing **anxiety** in the “MeSH Database” search box yields eight other MeSH terms that may be used in searches of anxiety, including the following: **anxiety disorders, anti-anxiety agents, test anxiety scale, manifest anxiety scale**. Using these terms enables one to refine one’s searches still further. These subject areas also may be retrieved by simple, **[mesh]** and **[majr]** searches.

PubMed has MeSH terms covering numerous subject areas that will improve the quality of one’s searches. It also contains many other features to assist with searches, including a “Limits” page that allows one to restrict a search by specific factors, including the language in which the article is written, the type of journal in which it is published and the publication date. The latter may be limited to articles published in any specific range of time, e.g., the past 1-6 months, the past 1-10 years.

Like many other search engines, PubMed allows one to use the three Boolean operators (**AND, OR** and **NOT**) to create complex search phrases. Some search engines require the terms to be capitalized and some do not, so it is always best to capitalize them. Conducting searches with Boolean logic is explained under the column heading “Using PubMed” beneath the search box on the PubMed home page. We will give some examples here.

Since anxiety and depression are often comorbid, one might conduct different searches if one were interested in one, either or both of them. After confirming that depression was a MeSH term, we conducted the following searches, limiting our search to the “past 2 years.”

- The search phrase **anxiety [majr] NOT depression [mesh]**, which restricts the search to major articles on anxiety that do not address depression, yielded 1,379 records.
- The search phrase **depression [majr] NOT anxiety [mesh]**, which restricts the search to major articles on depression that do not address anxiety, yielded 7,760 records.
- The search phrase **depression [majr] OR anxiety [majr]**, which searches for articles in which depression or anxiety are major topics, yielded 9,951 records – roughly the sum of the two.
- Finally, the search phrase **anxiety [majr] AND depression [majr]** was used to restrict the search to articles in which anxiety and depression were major topics. This search retrieved 614 records.

One may wonder if any of the articles on anxiety or depression involve pastoral care. Adding pastoral care to the search phrase, retrieved a single record and its abstract.

(depression [majr] OR anxiety [majr]) AND pastoral care

We realized there are two problems with this search. First, chaplains are not directly involved in the treatment of depressive disorders or anxiety disorders, which are captured by the use of the term **[majr]**. We widened the search to capture any use of the terms anxiety or depression in the record.

Second, we did not search for chaplaincy, per se. The closest MeSH term for chaplaincy is **chaplaincy service, hospital**, which includes several variants of these three words. Neither chaplain nor chaplaincy is a MeSH term. Nevertheless, for the purpose of illustration, we used the

word **chaplain** as a search term as this results in articles that include the word **chaplain** regardless of the location of the word in a record.

(depression [majr] OR anxiety [majr]) AND (pastoral care OR chaplain*)

Notice that the term chaplain has an asterisk after it. This makes it a “wild card,” which will search for chaplain, chaplains, chaplaincy, and any other word in a record that starts with chaplain, including authors named chaplain. To ignore records in which the author’s name is chaplain, we would add **NOT chaplain [au]** to the end of the search phrase:

(depression [majr] OR anxiety [majr]) AND (pastoral care OR chaplain*) NOT chaplain [au]

The left side of the search phrase looks for articles on depression or anxiety in which anxiety or depression is one of the main topics discussed. The right side of the search phrase looks for any articles with the terms pastoral care or chaplain and its variations in the title, abstract or other fields of the PubMed record. The connector **AND** selects only those articles that meet both sets of search criteria. This search phrase identified and retrieved six records.

Broadening the search

Since pastoral care and chaplaincy are relatively small professional fields it is not surprising that only six articles were located. However, there could be many articles that examine those issues addressed by chaplains without directly mentioning pastoral care or chaplains. One way to widen the search is to search for articles that discuss religion or spirituality.

The MeSH term **religion** was introduced in the 1960s, and **spirituality** was introduced in 2002. When we searched for **spirituality [majr]** and selected “past 5 years” on the “Limits” page we retrieved 1,275 records. When we searched for articles on **religion [majr]** published in the past five years we retrieved 5,287 records. When we searched for **religion [majr] OR spirituality [majr]** we retrieved the same number of records, i.e., 5,287, indicating that spirituality is coded in PubMed as a subset of religion. This is not surprising since **spirituality** is a subset of religion in MeSH. Searching **religion [majr]** also retrieves articles about spirituality.

Although the preceding search results indicate that a search on **religion [majr]** yields the same results as **religion [majr] OR spirituality [majr]**, we used the latter phrase in our next search for illustrative purposes. The following search identifies articles that meet the criteria of discussing depression or anxiety with religion or spirituality as a major focus.

(depression OR anxiety) AND (religion [majr] OR spirituality [majr])

The search located 924 articles that present a good starting point for a literature of articles about the relationship of religion/spirituality with depression and anxiety. Limiting the search to the past ten years reduced the number of records retrieved to 586, and limiting it further to English language articles reduced it to 567. At this point, one should start reading just the titles of the articles to see to what degree they relate to the topic in which one is interested. After narrowing the field, read the abstracts to confirm that the article is indeed relevant. Reading the titles and abstracts should also further restrict the search and help to focus on the topic using the NOT term or another limit option. Once the search is down to a few hundred records, one should read all the titles and all the abstracts of articles one thinks may be of value.

Two other types of useful search restrictions may be found on the “Limits” page, under “Text Options”: “Abstracts” and “Links to free full text.” Choosing Abstracts assures that all the records that are retrieved have abstracts. Choosing Links to free full text assures that all the retrieved records will connect one to the text of the article in an HTML or a PDF format. One also may locate the free full text articles by clicking on the “Free Full Text” link on the upper right of the search results page. One may be inclined to choose “Links to free full text,” especially if one has no library

or other Internet access to the full text of articles. However, it severely restricts search results. As an example, our search yielded only fourteen records with links to full-text articles.

We hope this brief overview of literature review content and search methods provides a process for preparing manuscripts that will be filled with current literature on topics that one is interested in writing about. We covered only one search engine, but with the exception of the MeSH system, many academic search engines operate in a remarkably similar fashion, so the keys discussed here to doing a good search are similar as well.

One should keep in mind that the quality of one's work relies on identifying what others already have thought about and researched. It also is important to identify limitations within the existing literature. This enables the author to set the stage to introduce the significance and potential impact of the research or information s/he presents in the article being submitted for publication. Conducting a thorough literature review not only strengthens one's own work, it provides a reference point for the future work of others. ♠