CONE HEALTH®
Medical Library

Our Roadmap

- Why Indeed
- Your Medical Library
- The Literature
- A Research Guide Just For You

Here's the heads up on what I'm planning on covering today.

But first, let's hear from you…

"What is your understanding the role of research plays in Spiritual Care?"

Before we dive in, I just want to ask, what is your understanding of the role research plays or should play in spiritual care.

Possible prompts:

- Can anyone define "Research in Spiritual Care?"
- Has anyone written up a Case Study? Did any of them highlight instances where research has positively impacted spiritual care outcomes in hospital settings?
- What do you see as the perceived challenges and benefits of integrating research into spiritual care?

Standards of Practice for Professional Chaplains

Section 3: Maintaining Competent Chaplaincy Care

Standard 11, Continuous Quality Improvement: The chaplain seeks and creates opportunities to enhance the quality of chaplaincy care practice as understood within the chaplain's professional setting.

Standard 12, Research: The chaplain remains informed of relevant developments in evidenced-based and best practices in chaplaincy care through reading and reflecting on the current research and professional practice; and, where practical, collaborates or provides leadership on research studies.

Standard 13, Knowledge and Continuing Education: The chaplain takes responsibility for continued professional development and demonstrates a working knowledge of current theory and practice as appropriate to the chaplain's professional setting.

https://www.apchaplains.org/wp-content/uploads/2022/05/Standards-of-Practice-for-Professional-Chaplains-102215.pdf

Looking at the Association of Professional Chaplains, in their Standards of Practice, under Section 3, Maintaining Competent Chaplaincy Care, there are 3 standards listed, CQI, Research and Knowledge and CE.

Category E: Professional Development

There is an emerging recognition of the importance of research for the development of the profession of spiritual care.

Developing research literacy means

- Reading research
- Knowing where to find it
- Being able to understand what the research is indicating
- Recognizing major limitations
- Integrating helpful findings into one's spiritual care

Doing so will lead to

- Improved spiritual care
- Greater professionalism
- Bringing in diverse voices that can inform our practice
- Interaction with the interdisciplinary team with an
- Increased capacity to take in data to support their practice.
- Become a lifelong learner.

- ACPE Manual 2020

And jumping over to the ACPE, a look at their Manual, under Category E (Professional Development), it states that success includes to "become Research literate" followed by an elaboration on what that means.

On the left research literacy is defined and on the right are some results that will come from that literacy.

Category E: Outcome 5: Research Based Care

- IA: Demonstrate an awareness of how research is relevant to spiritual care.
- IB: how one's readings of research is relevant to one's provision of spiritual care.
- **IIA: Demonstrate one's ability to access and understand the main points of a research article and any major limitations.**
- IIB: Integrate relevant research into one's practice of spiritual care.

- ACPE Manual 2020

Then, down in Outcome 5, it provides these four indicators to be met in the pursuance of the Research Literate goal.

Today, we are going to focus on the third one, *Demonstrate one's ability to access and understand the main points of a research article and any major limitations* but in laying some context, we'll touch on the others to some extent.

Evidence-based Chaplaincy Care

(17 Kevin Adams. Patterns in Chaplain Documentation of Assessments and Interventions, a Descriptive Study. Unpublished PhD Dissertation. Richmond, VA: Virginia Commonwealth University, 2015.)

So, lets loop back for a moment on some of those benefits of research literacy.

Since the early 1990s, Evidence-Based Practice has come to be the standard bearer for providing care.

Research is what provides the 'evidence' that will support the integration of spiritual care into clinical practice in the first place.

And the research plays a part in that provision of "Evidence Based Care".

Engaging with the published literature is going to allow you to incorporate Evidence Based Practices into your own spiritual care interventions. Your critical evaluation of research findings, theoretical models or best practices will make sure your interventions will be grounded in the empirical evidence.

Following up on that last point, Evidence Based Interventions, a quick reminder of what EBP is.

From the ACP Standard of Practice for Professional Chaplains, they define
Evidence-based chaplaincy care. Chaplaincy care based on "an integration of best research evidence, [professional] expertise, [care recipient] preferences and circumstances, and an awareness of the [professional] setting and resource constraints.

Their cited reference: Kevin Adams. Patterns in Chaplain Documentation of Assessments and Interventions, a Descriptive Study. Unpublished PhD Dissertation. Richmond, VA: Virginia Commonwealth University, 2015.

Why Research Matters in Spiritual Care

The ways you'll be impacted:

- Ethical Considerations
- Improved Patient Outcomes
- Interdisciplinary Collaboration:
- Professional Development
- Knowledge Expansion
- Skill Development
- Quality Improvement

Looking at some of the 'why's' research will matter to you and the ways that by engaging with it, it will impact you, are:

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Ethical Considerations

- Research can explore the ethical implications of integrating spiritual care into patient treatment plans, ensuring that healthcare providers respect patients' beliefs and values while delivering care. Which is one of the components of that EBP diagram we just looked at.

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Improved Patient Outcomes:

- Research will enhance your understanding of the relationship between spirituality and health outcomes.
- It can demonstrate the impact of spiritual care on pain management, coping mechanisms, psychological well-being and satisfaction with care.

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Interdisciplinary Collaboration:

- Research encourages interdisciplinary collaboration between healthcare providers, researchers, and spiritual care professionals. Collaborative research projects facilitate the exchange of knowledge and expertise across different disciplines, leading to a more holistic approach to patient care that

incorporates spiritual dimensions.

- Overall, research plays a crucial role in advancing the field of spiritual care in clinical settings by providing evidence-based practices, supporting professional development, addressing ethical considerations, and improving patient outcomes.
- Published literature often highlights the importance of interdisciplinary collaboration in providing holistic patient care. By staying abreast of relevant literature, resident chaplains can identify opportunities for collaboration with healthcare professionals from diverse disciplines, such as physicians, nurses, psychologists, and social workers. Collaborative efforts informed by literature can lead to more comprehensive and integrated approaches to addressing patients' spiritual needs.

Professional Development:

- Research contributes to the professional development of healthcare providers who offer spiritual care.
- By staying informed about the latest research findings and participating in research activities, clinicians can enhance their knowledge and skills in providing effective spiritual care to patients.
- Reading published literature fosters ongoing professional development for resident chaplains. It exposes them to the latest research trends, emerging theories, and innovative approaches in the field of spiritual care. This continuous learning process enhances chaplains' expertise, confidence, and adaptability in addressing complex spiritual issues encountered in clinical settings.

Knowledge Expansion

- Reading published literature allows resident chaplains to expand their knowledge base regarding various aspects of spirituality, religious practices, cultural beliefs, and the intersection of spirituality with healthcare.
- This expanded knowledge equips chaplains with a deeper understanding of the diverse needs of patients and enables them to provide more informed and culturally sensitive spiritual care.

Skill Development

- Literature on spiritual care often includes practical strategies, case studies, and theoretical frameworks that can help resident chaplains develop and refine their skills in providing effective spiritual care.
- By learning from the experiences and insights shared in published literature, chaplains can enhance their communication skills, empathy, active listening abilities, and techniques for addressing spiritual distress.

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Quality Improvement

- Resident chaplains who engage with published literature are better equipped to contribute to quality improvement initiatives within healthcare settings.
- By critically analyzing existing practices and exploring innovative approaches documented in the literature, chaplains can identify areas for improvement in the delivery of spiritual care and actively participate in organizational efforts to enhance the quality of care provided to patients.

Establishing a Research Support System

The Medical Library will provide

- Resources and tools to enhance your research literacy skills.
- Information on those resources and tools so you can continue your engagement with research.

So now that we've touched on the whys and built a case for your involvement in research and the literature, as the African proverb says, "It takes a village". Meaning, that to be successful, you need a support system.

The Medical Librarian's are here to be a part of that collaborative support. They can provide you resources and tools that will enhance your research literacy and support your engagement with the literature reporting on the research.

The Smiling Faces

CONE HEALTH

PIEDMONT AHEC

PART OF NC AHEC

Ed Donnald

Laura Eynon-Way

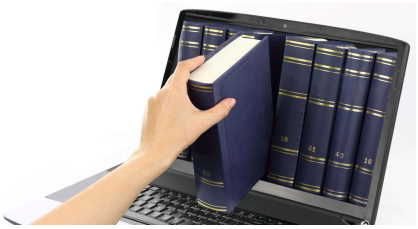
Samantha Winsmith

Let's start with the smiling faces. These are your librarians. I'm the Director and Laura and Samantha do an amazing job of making me look good and are my super stars.

And while the majority of work we do in support of Cone Health; we are also the regional library for the Piedmont AHEC.

What We Can Do For You

- Article Retrieval
- Literature Searches
- Provide Study Space; Computers & Printing
- Collaborate on:
  - Poster design
  - Conducting surveys
  - Citation management

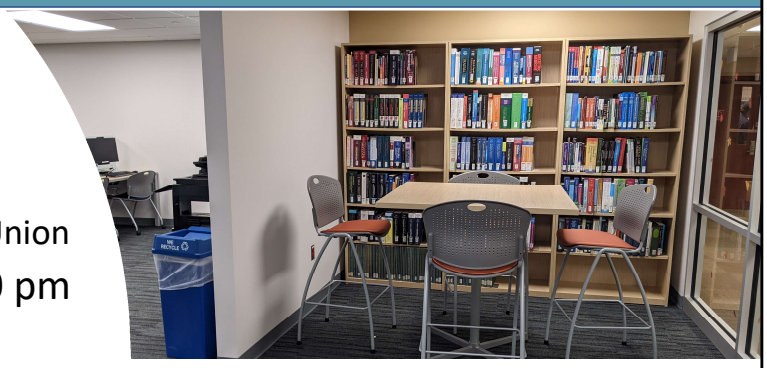


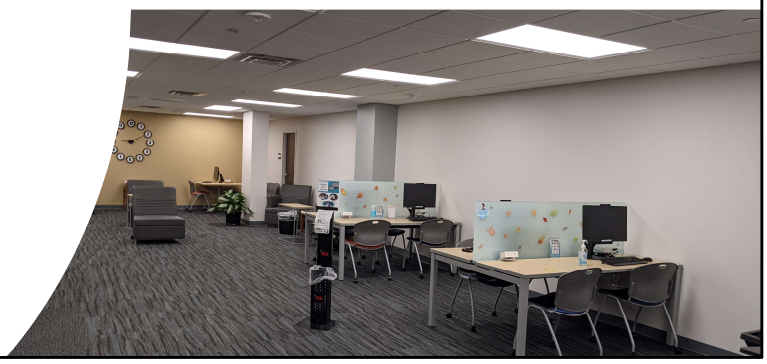
We do what you might think we do, in terms of the standard document delivery and literature search services. And our physical space also provides study space, computers and printing.

Some of the things that might not immediately come to mind when I say “Library” include poster design, surveys and citation management.

Our Physical Space

- Moses Cone Hospital Campus
- Ground Floor, West
  - Near Physicians' Lounge & Credit Union
- Librarians onsite M-F, 8 am - 4:30 pm
- 24/7 EID Badge Access
- 12 Networked Computers
- Tables & Outlets
- Soft seating
- Printing, scanning and faxing





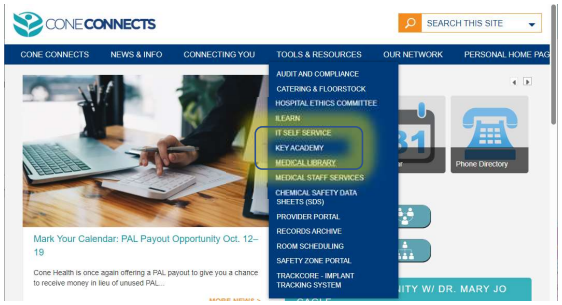
We're down to one physical location on the ground floor west in MCH.

The librarians are onsite M-F 8 a.m. -4:30 p.m. however your employee ID badge will get you in 24/7/365.

And while we're on the smaller side, we do have a dozen networked computers, printing, scanning and fax options as well as space to study.

Connecting With Us

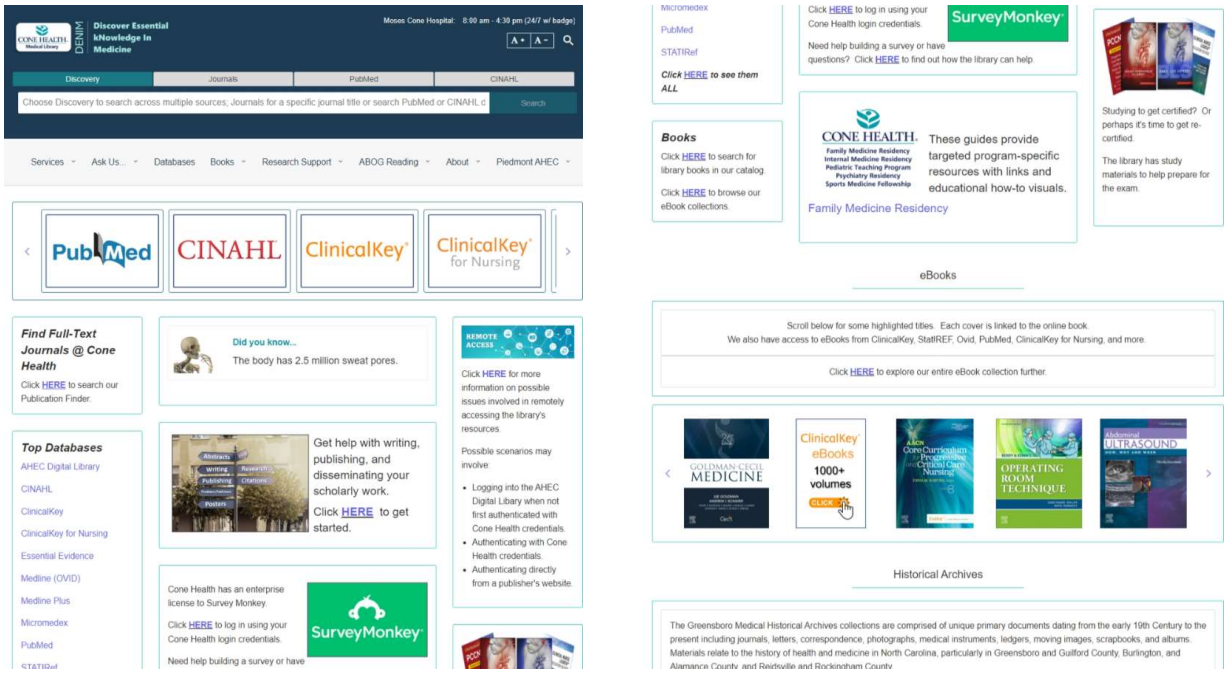
- Phone: 832-7484
- Email: medical.library@conehealth.com
- Web: www.conehealth.com/library
  - ConeConnects | Tools & Resources



You can connect up with us via the traditional phone, email or website options.

I like to say ‘we’re right in the middle of things’ as you can find our online portal linked off ConeConnects, in the middle of Tools and Resources.

Library Online Portal www.conehealth.com/library



This is our online portal, DENIM, Discover Essential kNolwedge in Medicine, a nod to our founder.

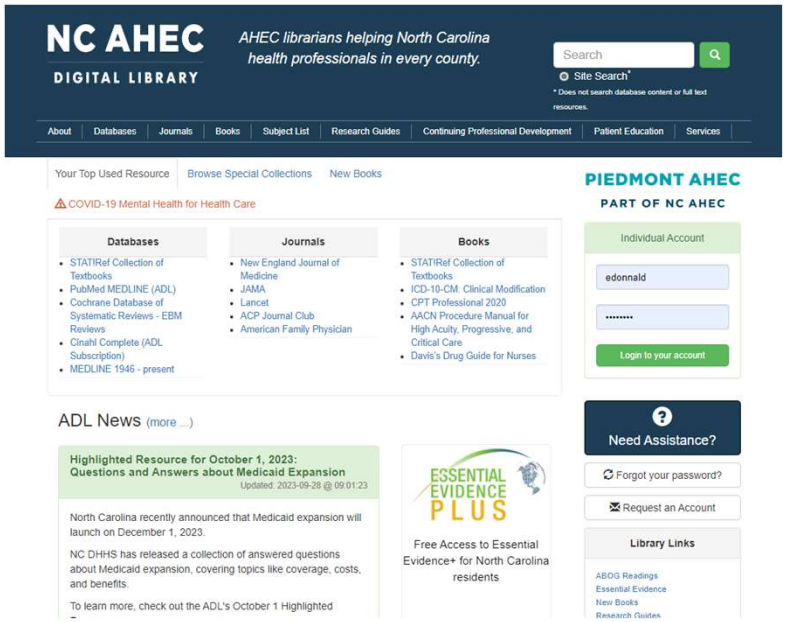
Here you can search our databases, pick up a fun medical fact from Temperance and a whole bunch of other ‘library’ things.

And getting to it is easy, I’d like to think, with the address www.conehealth.com/library.

Responsive to Mobile Devices

And the site is mobile responsive.

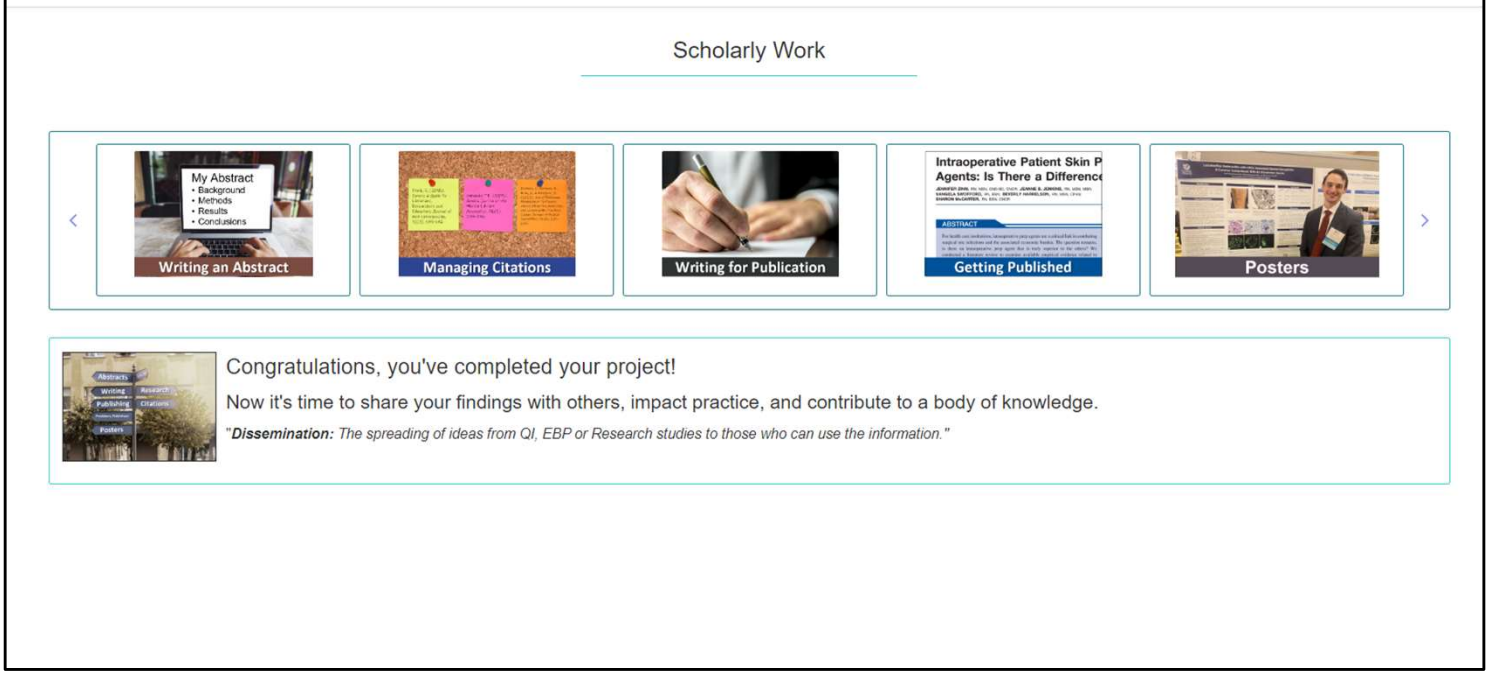
AHEC DIGITAL LIBRARY



I do want to take a moment just to explain what the “AHEC Digital Library” or ADL is.

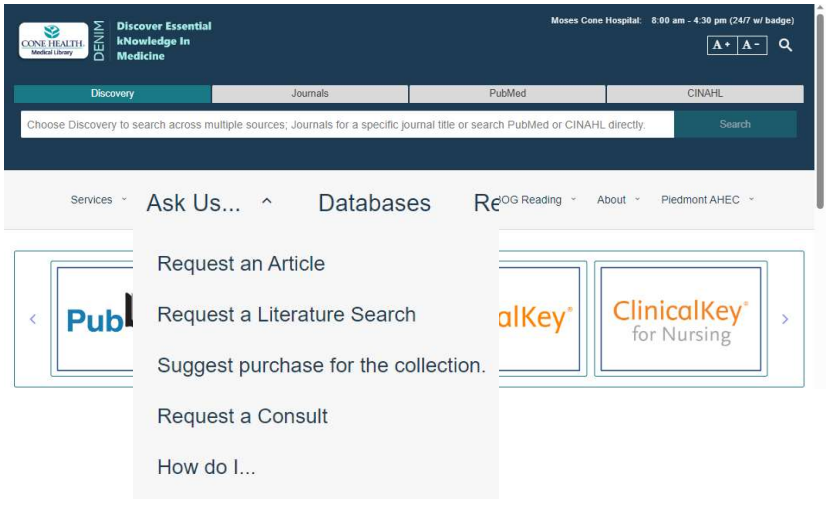
A large set of our resources are provided through a contract with the NC AHEC and those things are found in the ADL. At present, if you are jumping over to a resource in there, you’ll either be automatically passed through due to IP recognition, or we can set you up with an account and then you can log in independently of Cone Health.

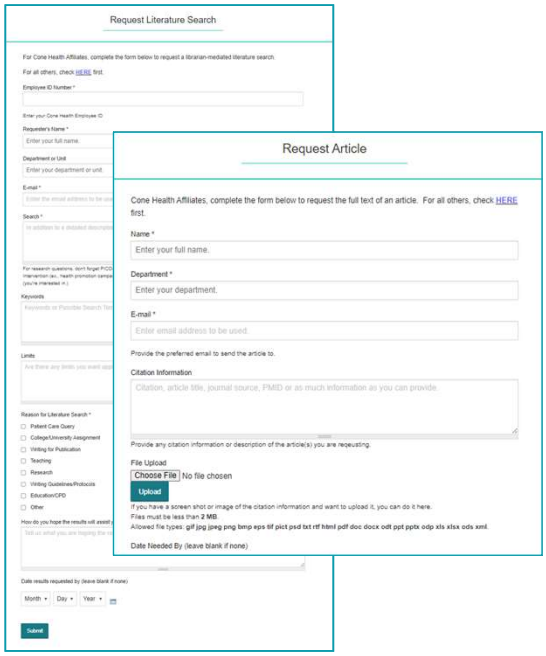
Support to Write, Publish and Present



Getting back to our side of things, we also offer resources and guidance in the area of scholarly work, from writing abstracts, managing citations, writing and getting published as well as disseminating your findings including scientific posters.

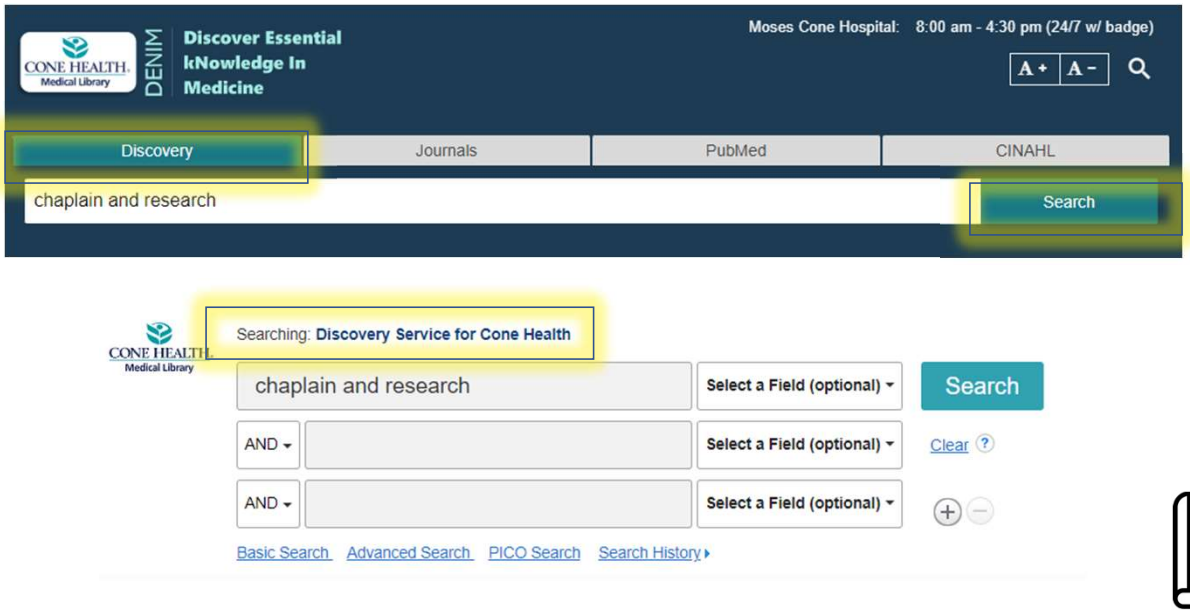
Forms for Submitting Requests





On the portal, under the “Ask Us” option, you will find different forms for requesting articles, literature searches or to just get in touch with us.

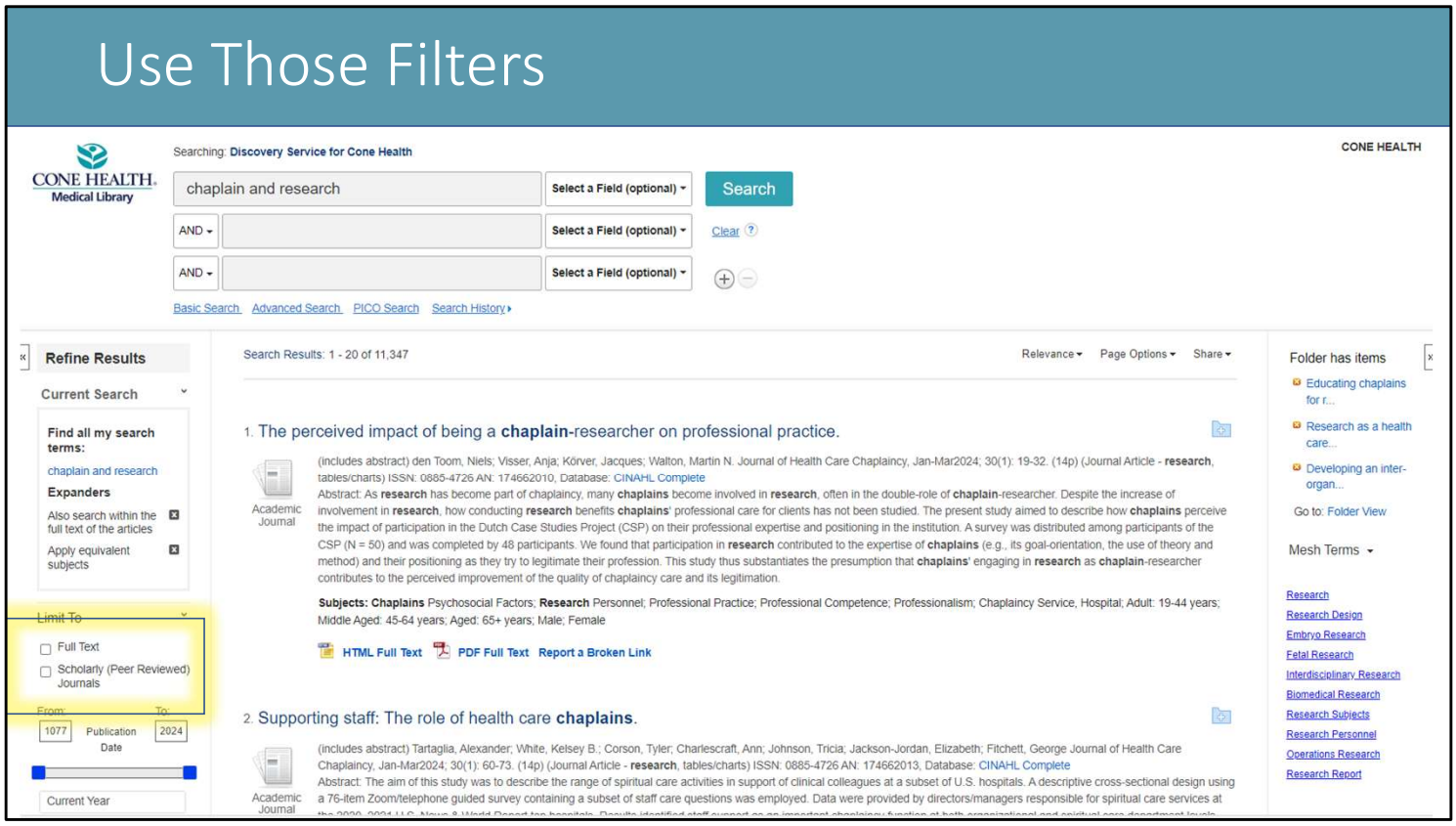
Using Discovery Service



Let's now take a deeper dive on that need to demonstrate an ability to access research articles.

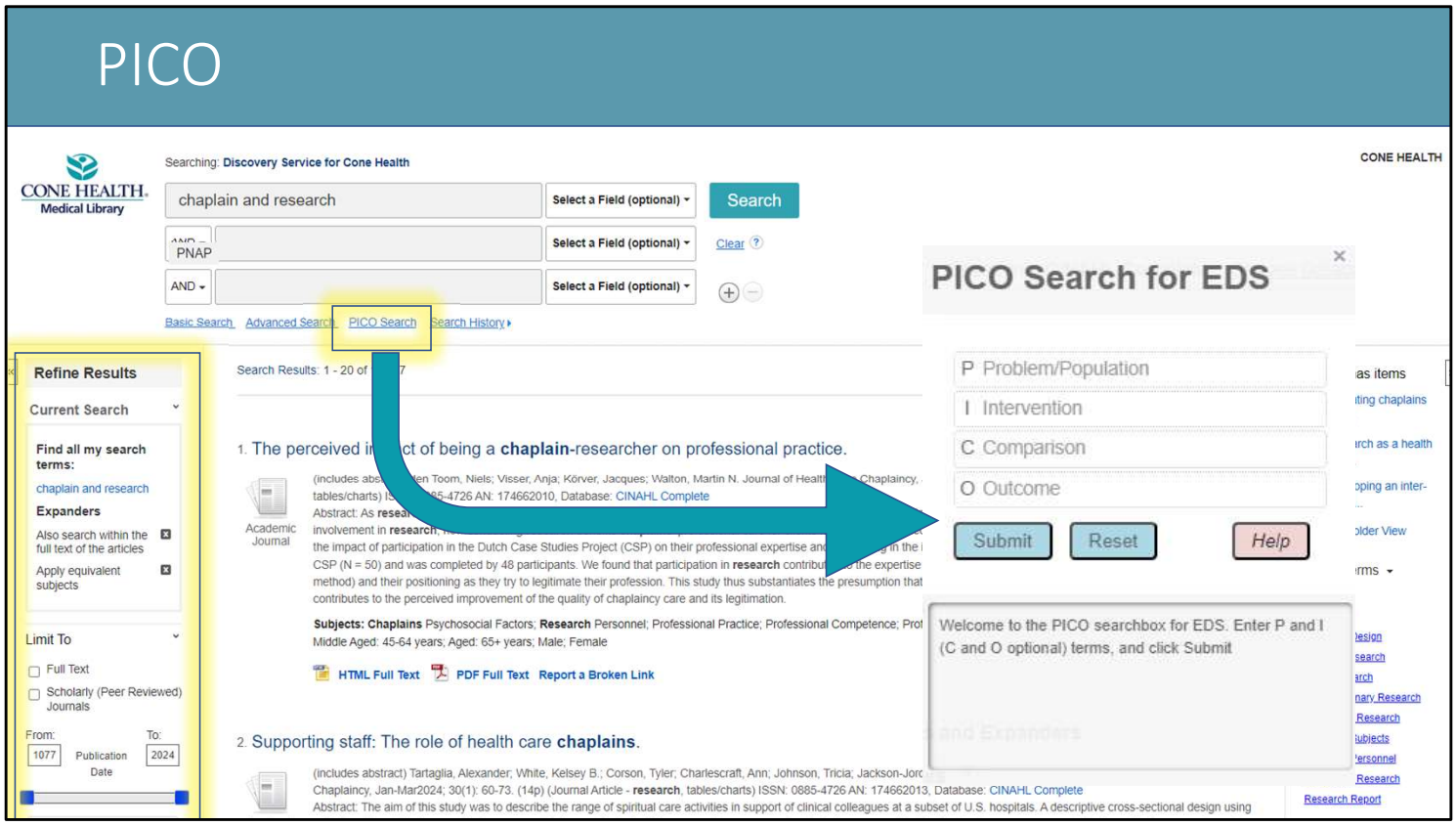
Our Discovery works like Google in the sense that you have a single search box. So, you drop in your key words and click on Search.

Use Those Filters



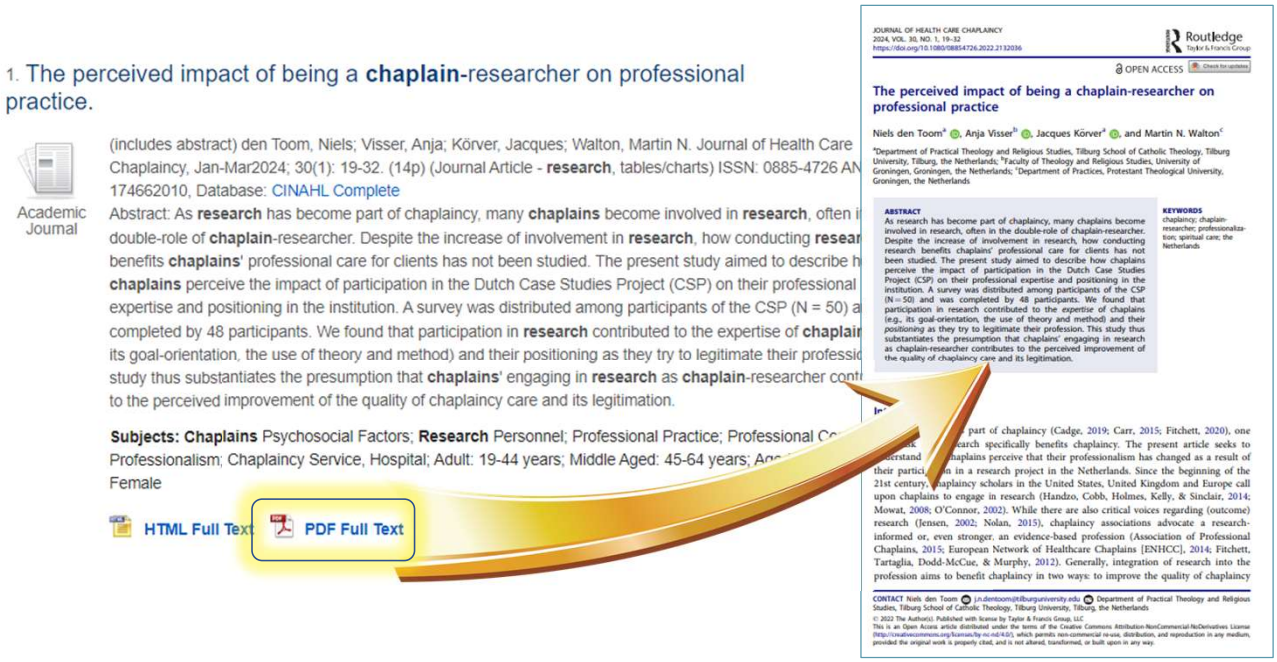
Pulling back just a bit, you'll see your results listed with options for further refinements. Including advanced search fields, Limits and other ways to narrow down your results.

PICO



There's a PICO option to help approach a search that way if you wanted.

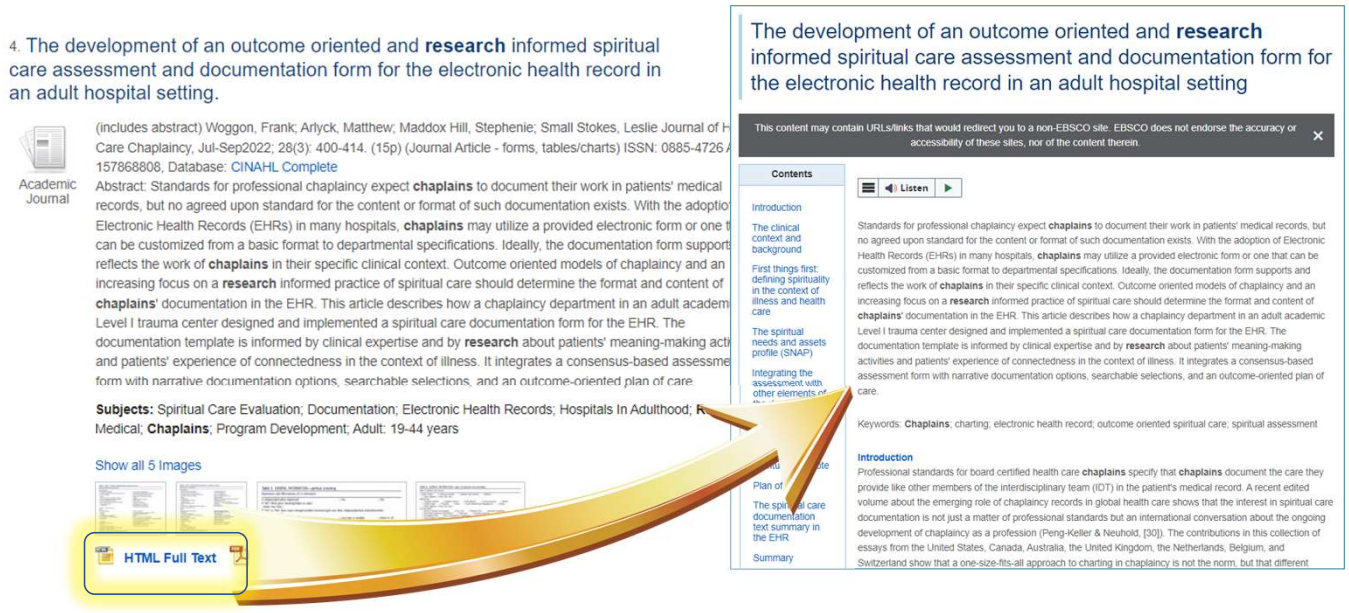
The Search Results & Download PDF Full Text



Once you've fired your search, you'll start to scroll through the results, eyeing up ones of interest.

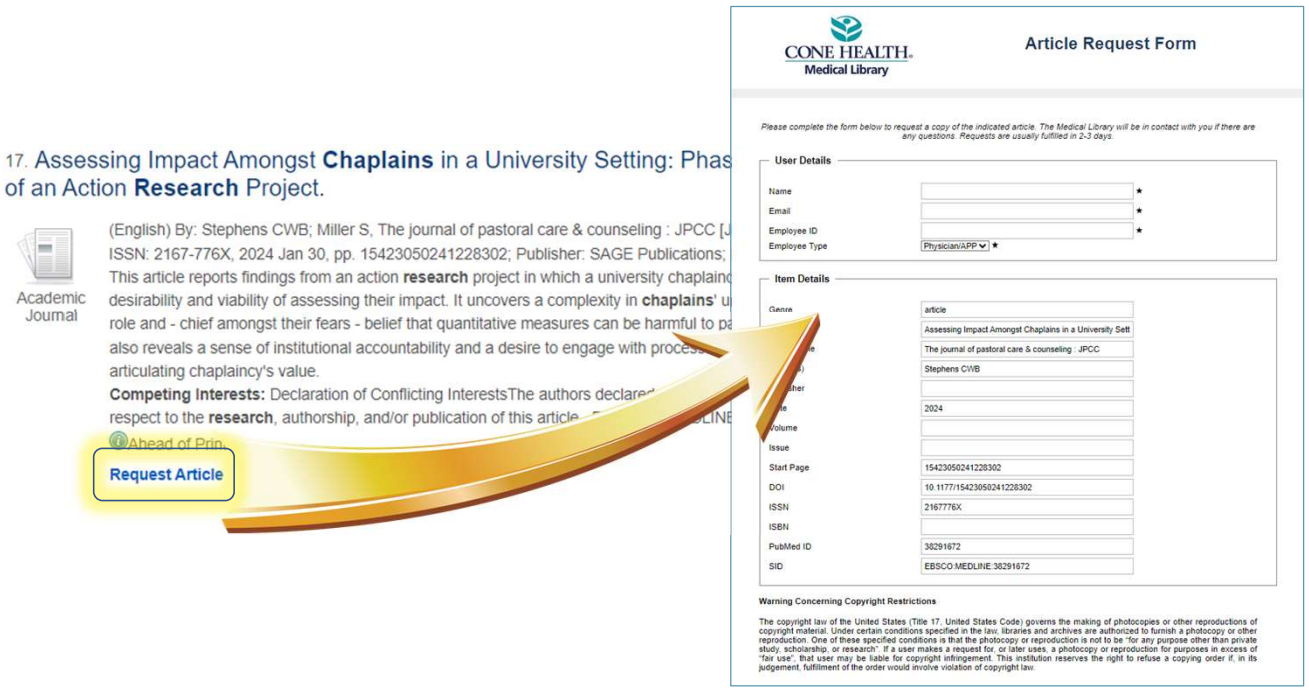
One of the options you'll see is "PDF Full Text" and that is just what you'd expect, click on the link and that's what you get!

The Search Results & Getting the Full Text



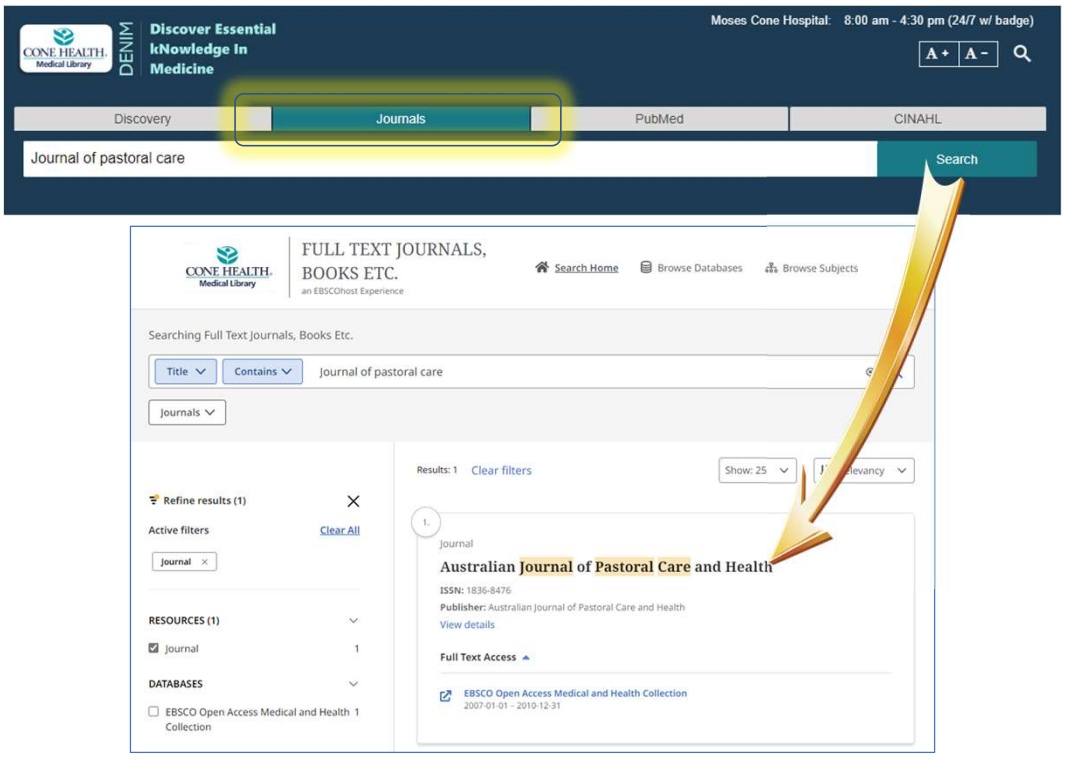
If the PDF isn't an option, you may see "HTML Full Text". So, in this case, you still get all of the content, it's just not formatting and packaged as a PDF.

The Search Results & Requesting the Full Text



And finally, the last option you may see is “Request Article”. Which mean, again, just what you’d think. We don’t have access to it in our collection but are happy to get a copy for you from another library. And this option prepopulates the request form with most the info we need, you just added your information at the top and submit. And, hopefully relatively quickly, the article shows up in your Inbox.

The actual video is pretty cool with the music and scrolling and flashing back to my youth. LOL. But the idea here is that you already have a lead on the article you are after. You have the citation and are looking to get the full text article.

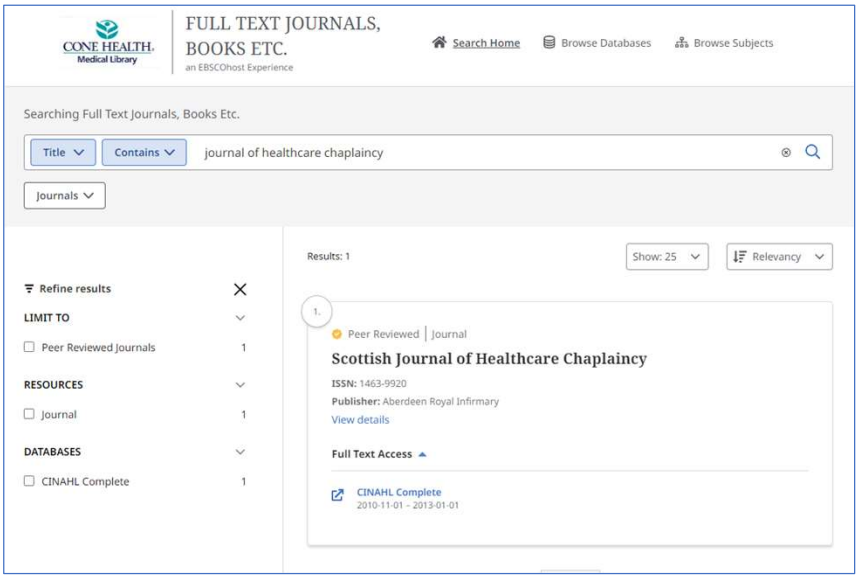


So, you KNOW the journal title that published your article.

In this case, you come to our portal, select Journals and enter your journal title.

Here we are looking for the Journal of Pastoral Care, but it appears we only have access to the Australian Journal of Pastoral Care and Health.

GIGO ☺

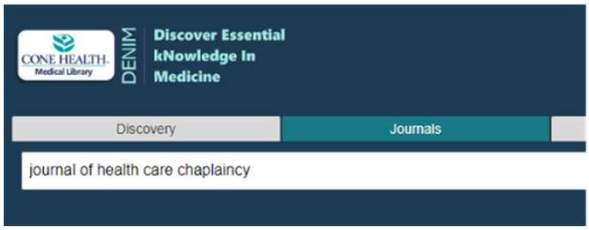


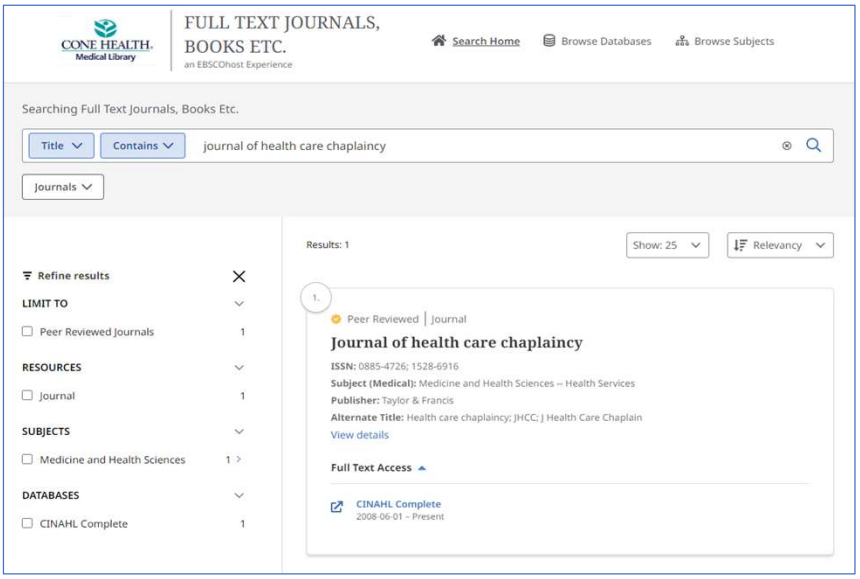
Now, I'd mentioned Google earlier so want to caution that in some ways this works better and in others not quite the same.

So, in this example, we enter journal of healthcare chaplaincy.

And while we are given another foreign one, this time from Scottland, it appears that again we don't have access to what we're after.

GIGO ☺





However, if we add just a single space ‘between’ health and care, we do in fact have access to that journal.

Now a quick and completely unscientific study which I’m not sure seems to settle things seems to indicate that

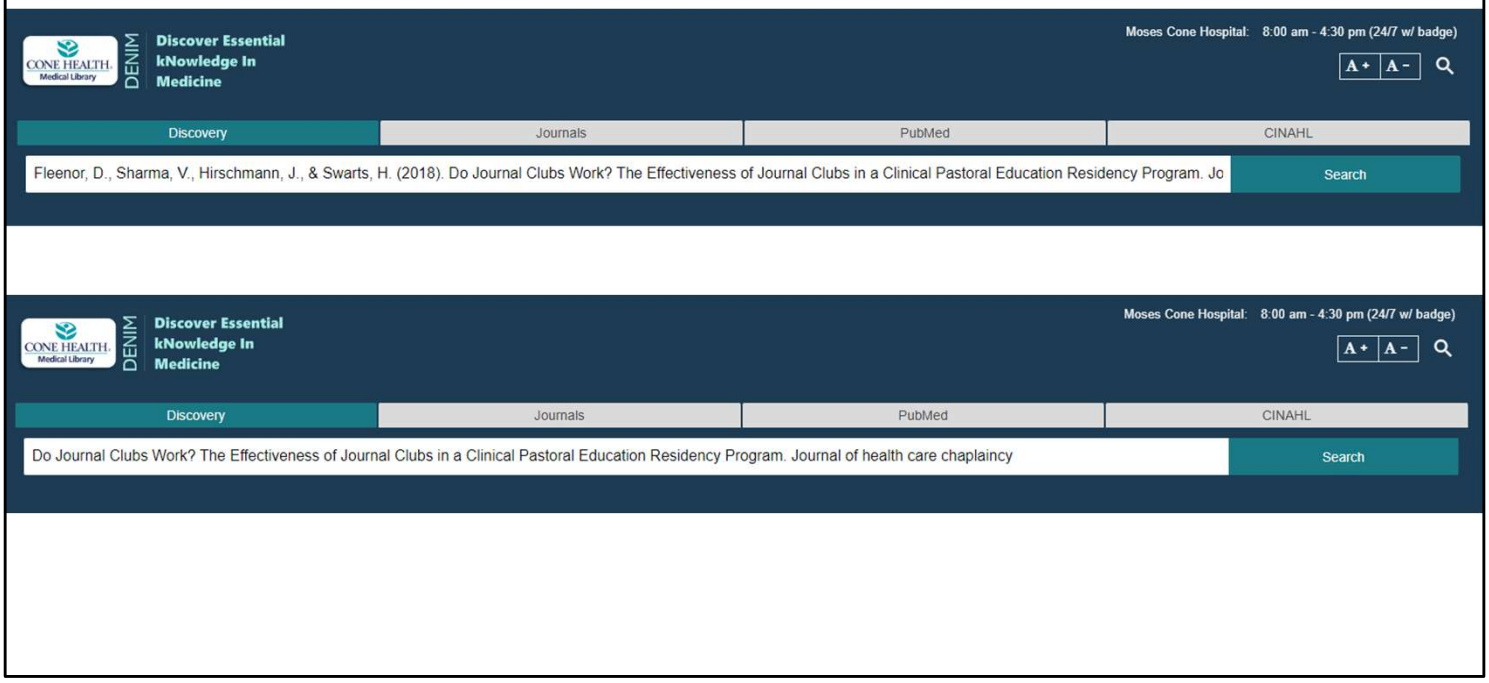
Health Care, with the space refers to the providers actions and has 1.4 billion (1,450,000,000) results in Google.

Healthcare, without a space is a replacement for the hyphenated health-care, refers to a system and is now most common usage, with Google providing 6.6 billion (6,570,000,000) results (4x)

Yet, we need the space to track down our journal.

All of which I suppose supports the maxim, garbage in garbage out.

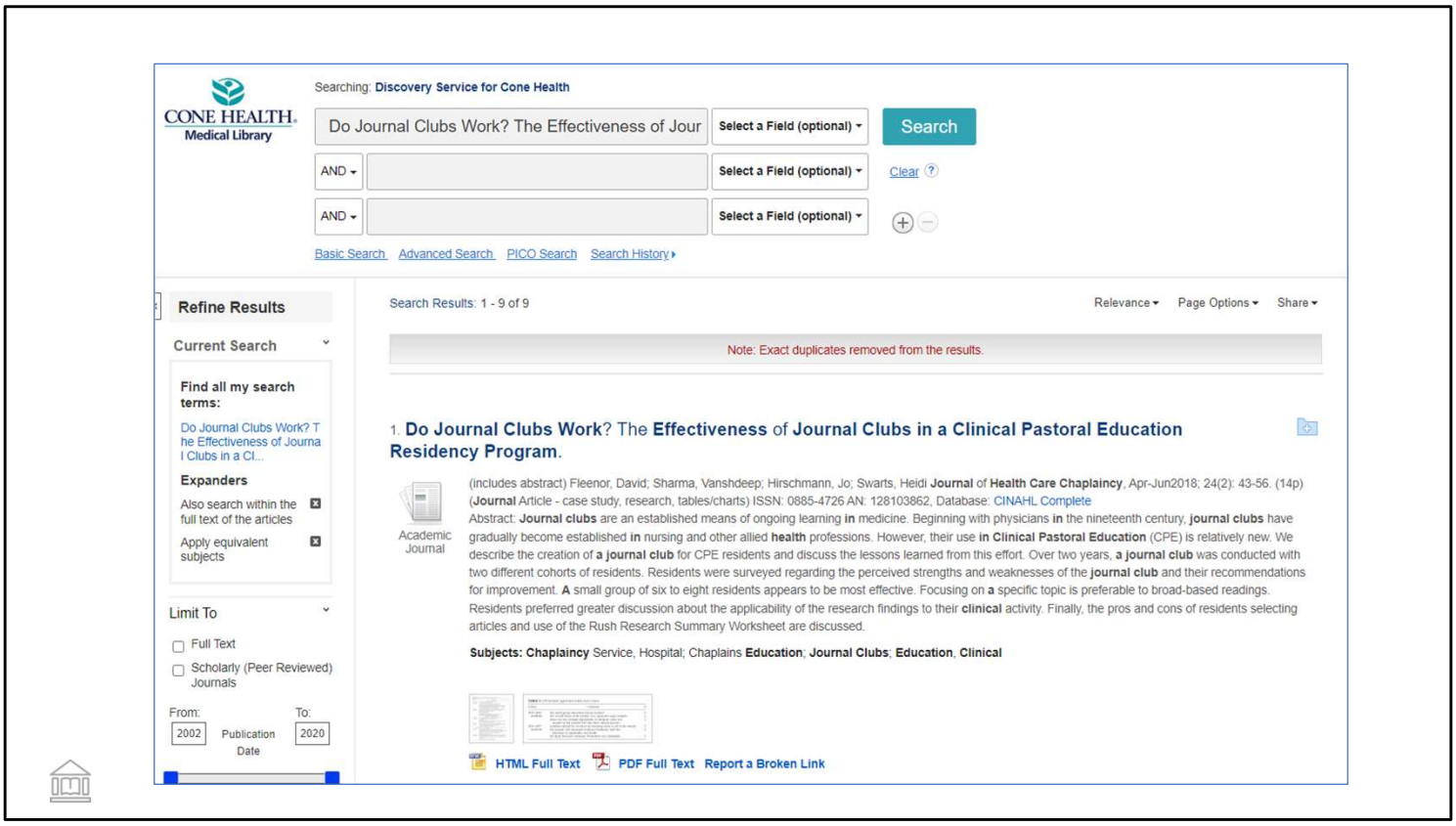
More, but less is more ☺



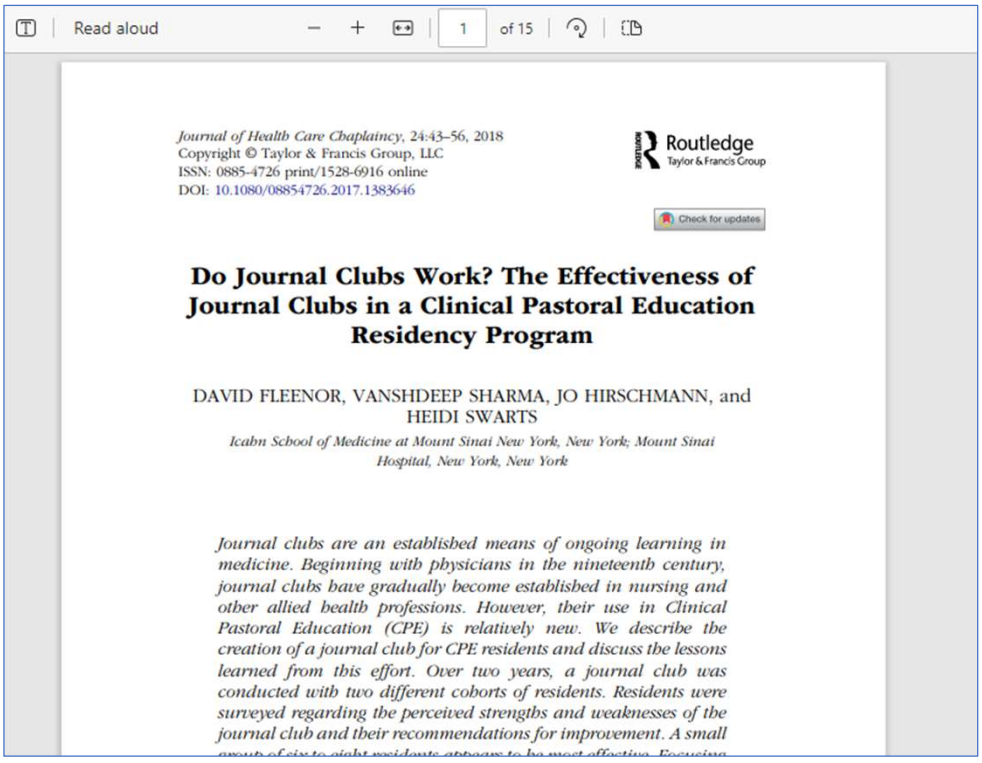
Now, getting back to the enhanced functionality of our Discovery service, another option would be to just drop what you have for a citation into the search box and see if it works.

In the top example, I've pasted in the entire citation, and in this case, it didn't bring back what I was after.

HOWEVER, if I took out some of the extraneous content like DOI, volume issue and pages and left the article title and journal title, I 'was' successful.



And here you can see those search elements in the search box and my article with a waiting PDF link calling to me.



Read aloud 1 of 15

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DOI: 10.1080/08854726.2017.1383646

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Check for updates

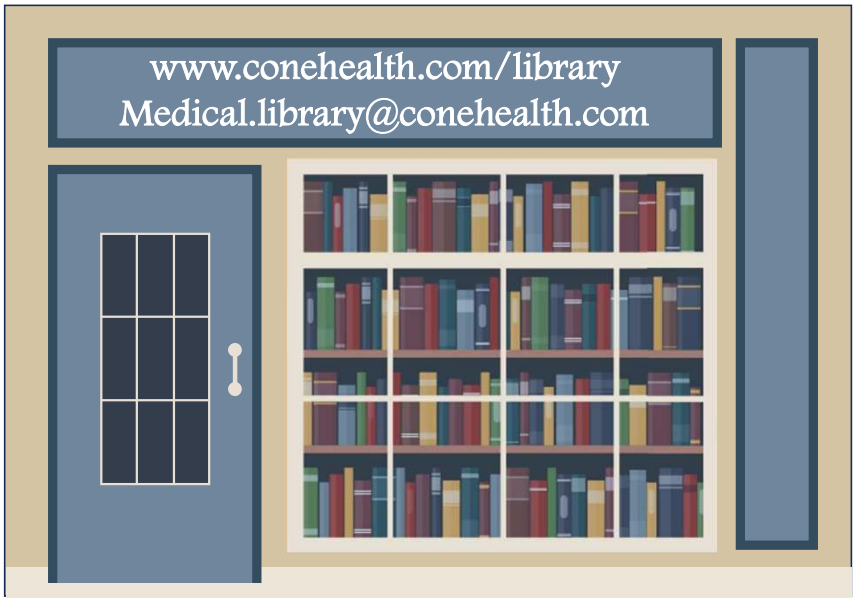
Do Journal Clubs Work? The Effectiveness of Journal Clubs in a Clinical Pastoral Education Residency Program

DAVID FLEENOR, VANSHDEEP SHARMA, JO HIRSCHMANN, and HEIDI SWARTS

Icahn School of Medicine at Mount Sinai New York, New York; Mount Sinai Hospital, New York, New York

Journal clubs are an established means of ongoing learning in medicine. Beginning with physicians in the nineteenth century, journal clubs have gradually become established in nursing and other allied health professions. However, their use in Clinical Pastoral Education (CPE) is relatively new. We describe the creation of a journal club for CPE residents and discuss the lessons learned from this effort. Over two years, a journal club was conducted with two different cohorts of residents. Residents were surveyed regarding the perceived strengths and weaknesses of the journal club and their recommendations for improvement. A small

You Village Shoppe for Support

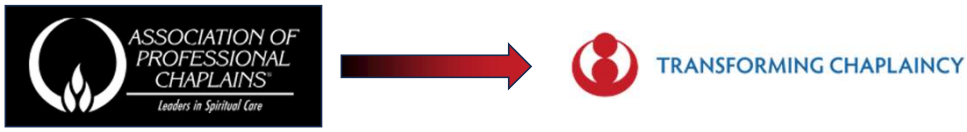


So, in terms of the medical library and our resources, I know it was a quick romp through things so want to make sure you at least leave with the most important piece of info and that's how to find us.

I'd mentioned earlier it takes a village, and either our email address of medical.library@conehelath.com or our online portal at www.conehealth.com/library will get you back to the right shoppe. Once you get through that door, the rest of it can be covered again.

You Village Shoppe for Support

But what about once you leave.



https://www.transformchaplaincy.org/about/mission-and-vision/

Vision: We envision a future when chaplaincy is formed, informed, and transformed by evidence-based practice

Mission: The mission of Transforming Chaplaincy is to promote evidence-based spiritual care and integrate research into professional practice and education by fostering a culture of inquiry

CHAPLAIN

I'm just getting started » https://www.transformchaplaincy.org/resources-for/i-am-a-chaplain-gettingstarted/

I want to take my research further » https://www.transformchaplaincy.org/resources-for/i-am-a-chaplain-nextsteps/

I'm sure there are lots of other resources out there that are useful. And perhaps you've already come across some of them.

An obvious one I'll point out is starting back on the APC site. They have a link which leads to transforming chaplaincy and among the resource there are two, of many that caught my eye.

Under Chaplain, "I'm just getting started" and "I want to take my research further"

So, that may be worth a glance as well.

Standards of Practice suggested by Rev. Russell Dicks, 1940

Reading and understanding a research article can be a complex process

Getting back to the Research and the articles, remember the standard? We've covered the access part, now lets just touch on the understanding the main points.

Reading an article and understanding it can be a daunting and seemingly complex process. But let's break it down into manageable steps.

Working with the Literature

1. Searching the Literature

   First, you need to search for articles on your topic using databases and other resources.

2. Understanding the Types Studies & Levels of Quality

   Next, you will want to understand how the quality of the articles is related to the type of study done.

3. Reviewing Articles

   After reading through an article, you will want to make notes on it.

4. Grading Articles

   Remember Step 2? Now is the time to take a closer look at your articles and get a sense of their quality.

5. Synthesizing the Literature

   Finally, you want to synthesize all of your articles, comparing them against each other to select the BEST ones for the BEST EVIDENCE.

https://conehealth.sharepoint.com/teams/nursing-research/SitePages/Working%20with%20the%20Literature.aspx

Now all of this has a process, which involves these steps.

First, you'll do the searching and come up with that stack of papers in front of you.

Next, you'll start to look at them and identify the type of research that was conducted through a lens of the quality that that type of article can present.

Now the fun part, digging in to read them.

There will be some sort of grading involved followed by a synthesize of what the evidence is that that stack of papers is trying to tell you.

Research Methods in Spiritual Care

- Qualitative research
  - (e.g., interviews, focus groups) to explore patients' spiritual experiences and needs.
- Quantitative research
  - (e.g., surveys, outcome measures) to assess the effectiveness of spiritual interventions.
- Mixed-methods approaches
  - combining qualitative and quantitative data for comprehensive understanding.

We've already spent a lot of time on the searching, so will just briefly mention that the three types of research methods typically utilized in spiritual care are:

- Qualitative
- Quantitative
- Mix-methods.

Art of reading a journal article: methodically and effectively

Subramanyam R. **Art of reading a journal article: Methodically and effectively**. J Oral Maxillofac Pathol. 2013 Jan;17(1):65-70. doi: 10.4103/0973-029X.110733. PMID: 23798833; PMCID: PMC3687192.

- Can Google "PMC3687192"

The cardinal rule

Never start reading an article from the beginning to the end.

- Don't approach like a textbook, reading from beginning to end without pause for reflection or criticism.
- Highly recommended that you highlight and take notes as you move through the article.

There's lots of advice available out there and there may be some tweaking in your own approach. But I'll offer something to get you thinking.

There's an article "Art of reading a journal article: Methodically and effectively".

This particular one is Open Access, so free. All you need to do is Google it's PMC number and it'll pop right up. Just a note, that stands for PubMed Central, which makes its content freely available due to federal government funding, so no paywalls.

Their cardinal rule is "Never read an article from the begging to the end. It's not your traditional story book where you want to wait to the end to see who done it, or how the princess was saved. But rather you'll want to take a more circuitous route, pausing for reflection, or criticism, and even taking notes all of which will prove more fruitful.

Most scientific articles are organized as

- **Title** (Who)
- **Abstract** (Summary)
- **Introduction** (Why)
- **Methods** (How)
- **Results** (What Happened)
- **Discussion** (What It Means)
- **Conclusion** (What Was Learned)
- **References/Bibliography**

So, a quick review, as I'm sure there's nothing new here.

The typical article is constructed with the following sections.

1.Title

1.Contextual characterization of the topic (and they can get good at that) and the authors.

2.Abstract

Gives a quick overview of the article.
It will usually contain four pieces of information: purpose or rationale of study (why they did it); methodology (how they did it); results (what they found); conclusion (what it means).
Begin by reading the abstract to make sure this is what you are looking for and that it will be worth your time and effort.

3.The **Introduction**

Gives background information about the topic and sets out specific questions to be addressed by the authors.
You can skim through the introduction if you are already familiar with the paper's topic.

4.The **Methods**

Section gives technical details of how the experiments were carried out and serves as a "how-to" manual if you wanted to replicate the same experiments as the authors.
This is another section you may want to only skim unless you wish to identify the methods used by the researchers or if you intend to replicate the research yourself.

5. The **Results**

   Are the meat of the scientific article and contain all of the data from the experiments. You should spend time looking at all the graphs, pictures, and tables as these figures will contain most of the data.

6.Lastly, the **Discussion**

   Is the authors' opportunity to give their opinions. Keep in mind that the discussions are the authors' interpretations and not necessarily facts.

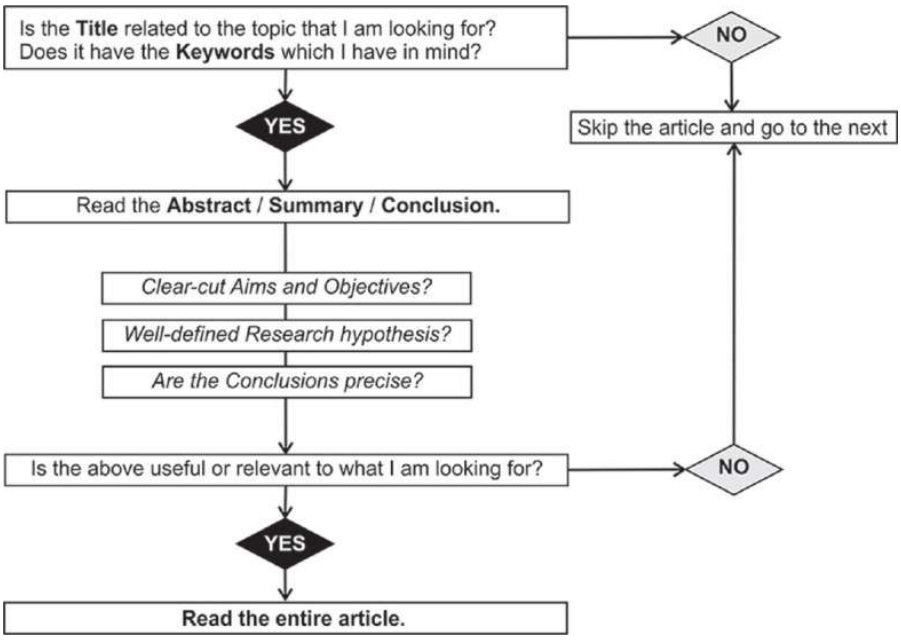
   It is still a good place for you to get ideas about what kind of research questions are still unanswered in the field and what types of questions you might want your own research project to tackle.

   (See the Future Research Section of the Research Process for more information).

- **Read the bibliography/references section.**

  Reading the references or works cited may lead you to other useful resources.
- **Reflect on what you have read and draw your own conclusions**.

Title-→Abstract→Summary



Art of reading a journal article: Methodically and effectively - PMC (nih.gov)

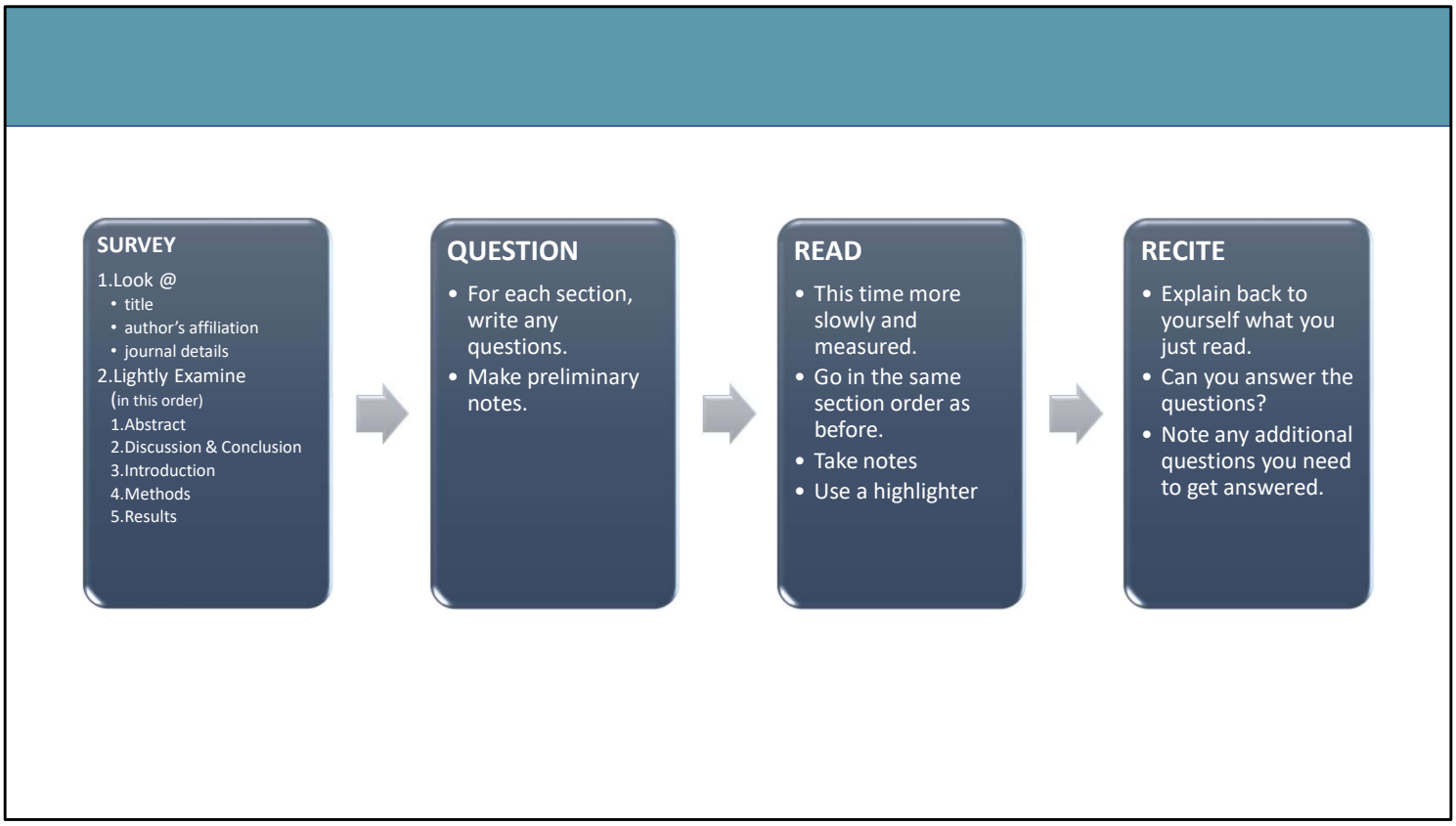
This particular article provides this nice decision tree.

As I mentioned, the title is usually pretty descriptive, and you can triage based on that.

Then read the Abstract (which can answer certain fundamental questions like what was the study about, why and how was the study conducted, the results and their inferences.)
Make a note of any questions that were raised while reading the abstract.

Next the Summary or Conclusions. This is telling you what the conclusions of the research are, summed up for you.

All the while, asking questions and making notes.



Adding a little more to it, I came across an approach where they are saying to SURVEY, QUESTION, READ and then RECITE.

What this means is to first look at that title as well as start gleaning information about the author's affiliation and details about the journal. Not sure if you've heard of Predatory Publishing, and that's another whole presentation, but those details can be important.

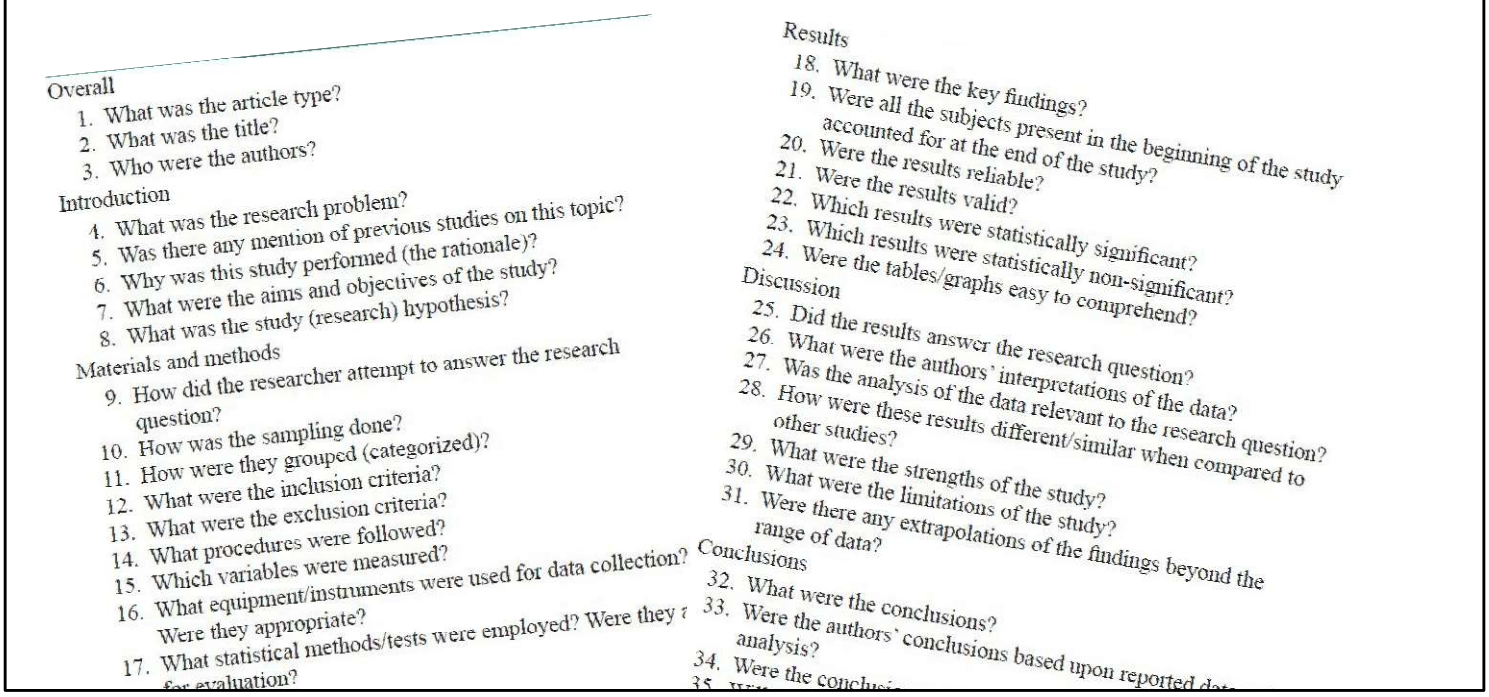
Then, skim over the sections, in the order we already suggested, the Abstract and then the Summary or Conclusion followed by the Introduction, Methods and finally the Results.

For each section, you want to be asking yourself questions and making notes on what you read and what questions you have. This is important, because these things 'will' begin to blur in your memory.

Now, go back and take your time and in a more measured fashion, cover the sections again in the same order, but highlight sections of interest or importance and refine your notes and questions.

Finally, explain back to yourself what you just read. And of course, add to that list of questions you may have.,

Critically appraising what you read



Overall
1. What was the article type?
2. What was the title?
3. Who were the authors?

Introduction
4. What was the research problem?
5. Was there any mention of previous studies on this topic?
6. Why was this study performed (the rationale)?
7. What were the aims and objectives of the study?
8. What was the study (research) hypothesis?

Materials and methods
9. How did the researcher attempt to answer the research question?
10. How was the sampling done?
11. How were they grouped (categorized)?
12. What were the inclusion criteria?
13. What were the exclusion criteria?
14. What procedures were followed?
15. Which variables were measured?
16. What equipment/instruments were used for data collection? Were they appropriate?
17. What statistical methods/tests were employed? Were they
for evaluation?

Results
18. What were the key findings?
19. Were all the subjects present in the beginning of the study accounted for at the end of the study?
20. Were the results reliable?
21. Were the results valid?
22. Which results were statistically significant?
23. Which results were statistically non-significant?
24. Were the tables/graphs easy to comprehend?

Discussion
25. Did the results answer the research question?
26. What were the authors' interpretations of the data?
27. Was the analysis of the data relevant to the research question?
28. How were these results different/similar when compared to other studies?
29. What were the strengths of the study?
30. What were the limitations of the study?
31. Were there any extrapolations of the findings beyond the range of data?

Conclusions
32. What were the conclusions?
33. Were the authors' conclusions based upon reported analysis?
34. Were the conclusi

The questions that you came up with, and more that you'll ask, while helping you understand what the research was about and the story being told, they also start the ball rolling on the evaluation and critical appraisal of the article.

Evaluating a scientific article involves critically assessing its quality, relevance, and contribution to the field of study. AND is where those limitations mentioned back in that Outcome can come from. And we're now in the critical appraisal stage where we are grading the article.

Here are some key steps to consider when evaluating a scientific article:

Author Credentials

Check the credentials and affiliations of the authors. Are they experts in the field with relevant qualifications and research experience? Consider their expertise and potential biases.

Journal Reputation

Assess the reputation and credibility of the journal in which the article is published. Is it a peer-reviewed journal with a rigorous editorial process and high standards for publication? Look for journals indexed in reputable databases like PubMed, Scopus, or Web of Science.

Title and Abstract

Review the title and abstract to understand the scope, purpose, and key findings of the study. Are the title and abstract clear, concise, and accurately reflective of the study's content?

Introduction

Evaluate the introduction to determine the significance of the research question, the clarity of the objectives, and the rationale for the study. Does the introduction provide sufficient background information and context for the research?

Methods

Scrutinize the methods section to assess the appropriateness of the study design, the reliability of data collection procedures, and the validity of statistical analyses. Are the methods clearly described and sufficiently detailed to allow replication of the study?

Results

Analyze the results section to understand the presentation and interpretation of the data. Are the results clearly presented with appropriate tables, figures, and statistical analyses? Are the findings supported by the data, and do they address the research question?

Discussion

Evaluate the discussion section to assess the interpretation of the results, the comparison with previous literature, and the implications of the findings. Are the conclusions drawn from the results justified, and do they contribute to advancing knowledge in the field?

References

Check the references cited in the article to evaluate the breadth and relevance of the literature review. Are the references up-to-date, credible, and accurately cited?

Ethical Considerations

Consider ethical considerations such as the protection of human subjects, adherence to research ethics guidelines, and disclosure of conflicts of interest. Are ethical considerations adequately addressed in the article?

Overall Quality

Assess the overall quality of the article, including the clarity of writing, organization of content, and adherence to journal guidelines. Does the article meet scholarly standards for clarity, accuracy, and rigor?

By systematically evaluating these aspects of a scientific article, you can make informed judgments about its quality, credibility, and relevance to your research or professional interests.

Grading your evidence

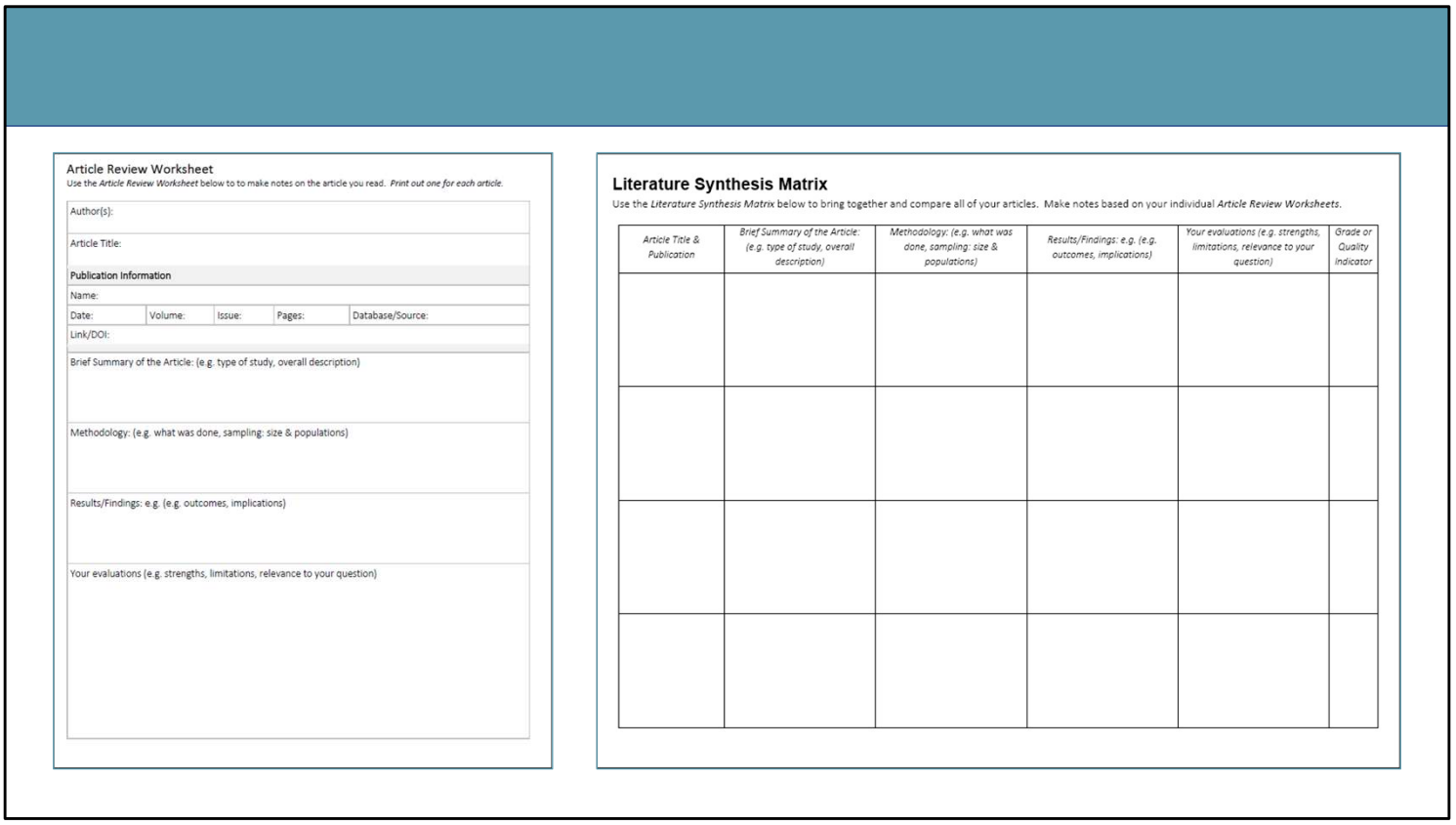
Meta-Analysis of RCTs	Best	A+
Systematic Review	Really Good	A
Evidence-Based Practice Guideline	Very Good	B+
Randomized Control Trial (RCT)	Good	B
Cohort / Case Control Study	Fair	B-
Case Report / Case Series	Poor	C+
Expert Opinion	Very Poor	C

	Lower if...	Raise if...
Question	• Difficult to determine; not clearly focused or defined.	• Easily identified; Focused and well defined.
References	• Missing or minimal	• They are extensive and from the primary literature.
Sample Size	• Very small (not appropriate); Large # of drop outs. • Selection & exclusion criteria missing.	• Appropriately large; small # of drop outs. • Reflects demographics of larger population.
Methods	• You can't follow; understand what they did. • Very low response rates to data collection.	• You can easily follow and understand. • Appropriately high response rates to data collection.

Bias	• There is evidence of bias or conflict of interest. • There is no disclaimer to conflict of interest.	• There is clear evidence and acknowledgement of no (or minimal) bias and conflict of interest.
Results	• They are incomplete, difficult to understand. • No statistical significance shown.	• Easily interpreted, variables identified. • Statistical significance is shown.
Conclusions	• Are unclear.	• Are an honest objective interpretation of results. • Provide implications for your practice.

You've already seen in your travels the 'evidence pyramid'. There are variations on it, but essentially it tries to convey that your expert opinion is on the lower end of verifiable 'evidence' whereas a Systematic Review on a topic is at the pinnacle, the gold standard for evidence.

So, you'll factor in the type of article you're reading and as you're assessing, will be nudging the needle in a positive direction or perhaps the other way. Some examples are included here.



Article Review Worksheet

Use the *Article Review Worksheet* below to to make notes on the article you read. *Print out one for each article.*

Author(s):				
Article Title:				
Publication Information				
Name:				
Date:	Volume:	Issue:	Pages:	Database/Source:
Link/DOI:				
Brief Summary of the Article: (e.g. type of study, overall description)				
Methodology: (e.g. what was done, sampling: size & populations)				
Results/Findings: e.g. (e.g. outcomes, implications)				
Your evaluations (e.g. strengths, limitations, relevance to your question)				

Literature Synthesis Matrix

Use the *Literature Synthesis Matrix* below to bring together and compare all of your articles. Make notes based on your individual *Article Review Worksheets*.

Article Title & Publication	*Brief Summary of the Article: (e.g. type of study, overall description)*	*Methodology: (e.g. what was done, sampling: size & populations)*	*Results/Findings: e.g. (e.g. outcomes, implications)*	*Your evaluations (e.g. strengths, limitations, relevance to your question)*	*Grade or Quality Indicator*

I'd mentioned earlier, this will start to run together, so there are tools you can use in your assessment to help keep things straight. Our Nursing Research Council provides both an individual article worksheet as well as a synthesis matrix.

Limitations

- Methodology may include limitations due to:
  - Sample size
  - Lack of available or reliable data
  - Lack of prior research studies on the topic
  - Measure used to collect the data
  - Self-reported data
- Limitations during the research process may arise from:
  - Access to information
  - Longitudinal effects
  - Cultural and other biases
  - Language fluency
  - Time constraints

And finally, that last component of our Outcome, is identifying the limitations of the articles.

Potential to negate the validity of the outcomes or damage reputations.

Being aware and taking responsibility for the boundaries validates the transparency and integrity of the researcher.

All studies have limitations. However, it is important that you restrict your discussion to limitations related to the research problem under investigation. For example, if a meta-analysis of existing literature is not a stated purpose of your research, it should not be discussed as a limitation. **Do not apologize for not addressing issues that you did not promise to investigate in your paper.**
Here are examples of limitations you may need to describe and to discuss how they possibly impacted your findings. Descriptions of limitations should be stated in the past tense.
Possible Methodological Limitations
•**Sample size** -- the number of the units of analysis you use in your study is dictated by the type of research problem you are investigating. Note that, if your sample size is too small, it will be difficult to find significant relationships from the data, as statistical tests normally require a larger sample size to ensure a representative distribution of the population and to be considered representative of groups of people to whom results will be generalized or transferred.
•**Lack of available and/or reliable data** -- a lack of data or of reliable data will likely require you to limit the scope of your analysis, the size of your sample, or it can be a significant obstacle in finding a trend and a

meaningful relationship. You need to not only describe these limitations but to offer reasons why you believe data is missing or is unreliable. However, don't just throw up your hands in frustration; use this as an opportunity to describe the need for future research.

•**Lack of prior research studies on the topic** -- citing prior research studies forms the basis of your literature review and helps lay a foundation for understanding the research problem you are investigating. Depending on the currency or scope of your research topic, there may be little, if any, prior research on your topic. **Before assuming this to be true, consult with a librarian!** In cases when a librarian has confirmed that there is a lack of prior research, you may be required to develop an entirely new research typology [for example, using an exploratory rather than an explanatory research design]. Note that this limitation can serve as an important opportunity to describe the need for further research.

•**Measure used to collect the data** -- sometimes it is the case that, after completing your interpretation of the findings, you discover that the way in which you gathered data inhibited your ability to conduct a thorough analysis of the results. For example, you regret not including a specific question in a survey that, in retrospect, could have helped address a particular issue that emerged later in the study. Acknowledge the deficiency by stating a need in future research to revise the specific method for gathering data.

•**Self-reported data** -- whether you are relying on pre-existing self-reported data or you are conducting a qualitative research study and gathering the data yourself, self-reported data is limited by the fact that it rarely can be independently verified. In other words, you have to take what people say, whether in interviews, focus groups, or on questionnaires, at face value. However, self-reported data contain several potential sources of bias that should be noted as limitations: (1) selective memory (remembering or not remembering experiences or events that occurred at some point in the past); (2) telescoping [recalling events that occurred at one time as if they occurred at another time]; (3) attribution [the act of attributing positive events and outcomes to one's own agency but attributing negative events and outcomes to external forces]; and, (4) exaggeration [the act of representing outcomes or embellishing events as more significant than is actually suggested from other data].

Possible Limitations of the Researcher

•**Access** -- if your study depends on having access to people, organizations, or documents and, for whatever reason, access is denied or otherwise limited, the reasons for this need to be described.

•**Longitudinal effects** -- unlike your professor, who can literally devote years [even a lifetime] to studying a single research problem, the time available to investigate a research problem and to measure change or stability within a sample is constrained by the due date of your assignment. Be sure to choose a topic that does not require an excessive amount of time to complete the literature review, apply the methodology, and gather and interpret the results. If you're unsure, talk to your professor.

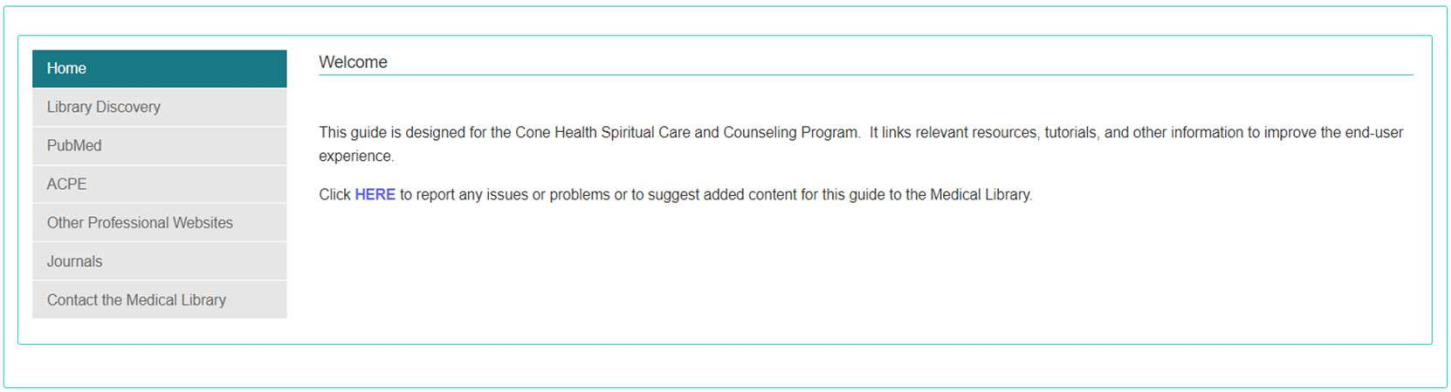
•**Cultural and other type of bias** -- we all have biases, whether we are conscience of them or not. Bias is when a person, place, or thing is viewed or shown in a consistently inaccurate way. It is usually negative, though one can have a positive bias as well. When proof-reading your paper, be especially critical in reviewing how you have stated a problem, selected the data to be studied, what may have been omitted, the manner in which you have ordered events, people, or places and how you have chosen to represent a person, place, or thing, to name a phenomenon,

or to use possible words with a positive or negative connotation. Note that if you detect bias in prior research, it must be acknowledged and you should explain what measures were taken to avoid perpetuating bias.

•**Fluency in a language** -- if your research focuses on measuring the perceived value of after-school tutoring among Mexican-American ESL [English as a Second Language] students, for example, and you are not fluent in Spanish, you are limited in being able to read and interpret Spanish language research studies on the topic. This deficiency should be acknowledged.

Brutus, Stéphane et al. Self-Reported Limitations and Future Directions in Scholarly Reports: Analysis and Recommendations. Journal of Management 39 (January 2013): 48-75; Senunyeme, Emmanuel K. Business Research Methods. Powerpoint Presentation. Regent University of Science and Technology.

https://conehealthlibrary.stacksdiscovery.com/node/66714



Now, I know this was a whirlwind tour on the topic, so I want to end by telling you one more thing and proposing another.

I have created a Research Guide just for you. It's …

And finally, I'd like to propose that we meet again and provide an opportunity for you to share with each other what you've learned. The idea is that you will identify a research article that catches your interest. You will read and assess it. Then, we'll get back together, and you can share your experience with your colleagues.