



TRENDS IN VETERINARY NURSING

Don't Fear the Research: Leverage the Learning

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Veterinary professionals have the opportunity to leverage learning in our various environments daily. One category of learning that is often overlooked but can provide a wealth of increased knowledge centers on published research and how these findings can be utilized in clinical settings. Almost all vaccines, medications, topicals, techniques, and more have been brought into use in the veterinary profession from the efforts of research across the globe. Yet, for many, attempting to read a scientific or scholarly research article can be overwhelming and confusing. By taking some time to explore how to bridge this divide and conquer any fear, veterinary team members can leverage learning by leaps and bounds.



As with any technical training, learning often takes place in a stepwise fashion—such as how to place a catheter, assess a patient, or obtain laboratory specimens. The same method is also an effective way to delve into research comprehension. It is challenging to learn a new skill by just reading from the beginning to the end; it can be much more effective to train, attempt, redirect, retry, practice, and plan.

Before reviewing specific tips to consider when reading a research study, it can be helpful to understand the anatomy of these publications. Most, if not all, scientific research publications will include the following core aspects of content:

- **Publication information:** Author names, institutional affiliations, and the title of the research publication
- **Abstract:** Typically a concise summary, including the topic, hypothesis, methodology, results, and conclusion
- **Introduction and/or literature review:** Provides necessary context on the research topic and typically describes what is known, what is not yet known, and why it is important to find out, as well as the hypothesis to be tested to or research questions to be explored to fill the knowledge gap
- **Methodology:** Describes the methods used to collect and analyze the data for the purpose of testing the hypothesis or exploring the research question
- **Results:** Presents the aggregated data (adding together or grouping of the raw data), often using charts, images, or tables
- **Discussion:** Analysis of the results and what the investigators think it means



If you choose topics and studies relevant to your interests, you will likely be more drawn into understanding the content.

- **Conclusion:** Sometimes combined with the discussion and outlining the study's contribution to knowledge, the limitations of the study, and new questions raised by the study that could warrant further research on a related topic
- **References:** A list of citations for the prior research referenced, which provides information and opportunities for further exploration of the topic

With a baseline understanding of the overall setup of most research studies, there are several methods that can help even the weariest readers navigate this area of learning. The most important step is the first that one takes into this journey of discovery. For a list of additional resources on how to read and apply research, see [TABLE 1](#).

TIP 1: Choose wisely and choose an initial topic you want to explore

Not all research is created equally. If you choose topics and studies relevant to your interests, you will likely be more drawn into understanding the content. You will

TABLE 1 Books About How to Read and Apply Veterinary Medical Research Publications

TITLE	AUTHOR	SUMMARY
How to Read a Paper: The Basics of Evidence-Based Medicine	Trisha Greenhalgh	Excellent for beginners who want to understand the structure and critical appraisal of scientific papers
A Beginner's Guide to Scientific Method	Stephen S. Carey	A concise introduction to the scientific method, including how to read and evaluate research
Critical Thinking About Research: Psychology and Related Fields	Julian Meltzoff	Focuses on how to evaluate research critically and avoid common pitfalls
Writing the Qualitative Dissertation	Judith Meloy	Helpful for those in the social sciences, offering a guide on reading qualitative research
The Craft of Research	Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams	Covers both how to conduct research and how to critically engage with existing research

Case Example

The author, as a neurology VTS who supports clinical research at her institution, completed the study, "Evaluation of the Impacts of Epilepsy in Dogs on Their Caregivers."¹ Through this research, the author explored a veterinary medical condition and its impact on patients and clients through their stories shared via phone, email, and more.

This research poster (FIGURE A) about the project illustrates several of the aspects of research content outlined above. It has led to published research, additional opportunities, and the ripple effect for other studies across the globe that have cited this work.

¹Nettifee JA, Munana KR, Griffith EH. Evaluation of the impacts of epilepsy in dogs on their caregivers. JAAHA. 2017;53(3):143-149. doi:10.5326/JAAHA-MS-6537

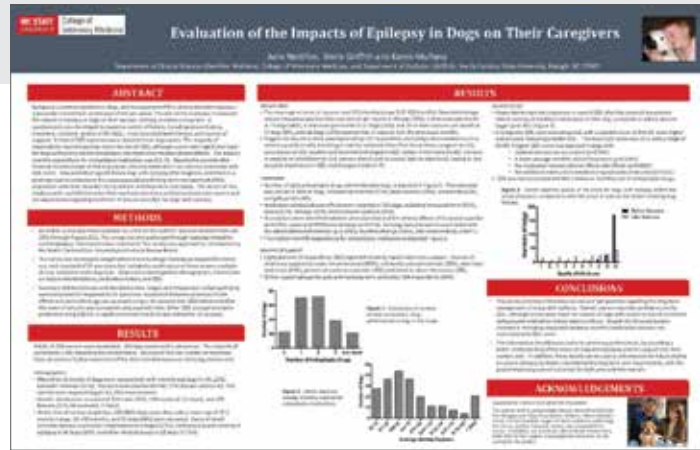


FIGURE A. The author led the study outlined in this research poster. To see the poster, visit go.navc.com/4jQbmn8

also typically have more background knowledge to build upon. Look for research in reputable journals or those that have a positive track record of publishing quality research. Do not be afraid to ask other veterinary professionals for recommendations or reach out to those in your interest area.

TIP 2: Break down the content

Research papers are usually structured and outlined like a scientific story. As previously noted, they will have an introduction/literature review, methods, results, discussion, and conclusion. They will also have references through which you can learn more about some of the drivers of the research. It can be helpful to approach reading a study, especially those that are more complex or longer in length, by breaking it down into its sections.

TIP 3: Befriend the abstract

The abstract in some cases is like a mini trailer for the entire paper. If prepared appropriately, the abstract should summarize the main findings in a concise way. Always read this first to see if the paper is worth your time and effort in delving into the topic further.

TIP 4: Skim the content

It is not necessary to read every word initially. Skim or review the introduction and conclusion to learn more about the research question and the main findings. After this is complete, you can increase your attention to the methods and results sections, where the more specific details of the study content are defined.

TIP 5: Highlight and annotate

Take your own pen and highlighter to the paper and highlight passages of interest, key terms, and areas that you have questions about. Add your thoughts and questions in the margins so that if you are reviewing this with other professionals, you are able to succinctly explore these questions or clarifications with others.

TIP 6: Digest the visuals

Most scientific research will include figures, graphs, and tables. These can all be your friend because in many cases, these can be more digestible than text content, or at the very least they can also help to clarify some of the text content and allow readers to more fully understand content through the visual pathways to learning.

TIP 7: Do not be afraid to ask for support

In many cases (and not just in medical research), several individuals could read content and come up with various and additional questions. Do not be afraid to reach out to a study's corresponding author or others and explore questions related to your topic of interest or to potentially understand research that has been shared that is relevant to you in some way.

TIP 8: Consider your own research questions and contributions

In human medicine, registered nurses have led and contributed to numerous studies related to topics that are relevant to their day-to-day activities. Increasingly, veterinary nurses/technicians are leading and authoring more research studies in veterinary medicine (see the **CASE EXAMPLE** sidebar). From clinical studies and investigations into caregiver support, there are infinite opportunities to advance your skills, increase your critical thinking and analysis abilities, and make a difference for the animals and caregivers that we support on a daily basis. **TVN**

Julie A. Nettifee

Julie works at the North Carolina State University College of Veterinary Medicine (NCSU CVM) where she supports clinical research in neurology and nutrition, as well as teaching and outreach support. She has been employed with NCSU CVM for more than 20 years. Julie trained at the University of Minnesota-Waseca, University of Wisconsin-Madison, and NCSU. She has extensive experience as a licensed veterinary technician and is also a veterinary technician specialist in neurology. Her special interests include study of the human-animal bond, humane education, and pet-facilitated therapies. Julie has presented locally, nationally, and internationally and has authored numerous articles related to several aspects of veterinary nursing. She has been honored as the American Humane Veterinary Nurse Hero 2020. Julie resides in Apex, North Carolina, along with her cat, Paradox; dog, Onyx; and other foster pets.



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