

Review Report

Overview of educational research in theriogenology

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Abstract

A review of the literature identified 59 studies specific to educational research in theriogenology. Provision of this comprehensive list of educational research in theriogenology will provide a resource for educators and encourage collaboration within the American College of Theriogenologists and Society for Theriogenology.

Keywords: Educational research, theriogenology, search string, cabicode

Educational research, also called scholarship of teaching and learning (SoTL), is a growing aspect of research in veterinary medicine. A recent review of all veterinary educational research from North American colleges of veterinary medicine established before 1985 identified 544 articles, with most published in the *Journal of Veterinary Medical Education* or the *Journal of the American Veterinary Medical Association*.¹ Thirty-eight of the articles in that study were published in discipline-specific journals, including *Clinical Theriogenology*; only 1 article was published in the journal *Theriogenology*, in 1995.²

Citations for publications of educational research in theriogenology were directly solicited from practicing theriogenologists using various list-serves. A literature search was conducted on March 21, 2022 of both PubMed/MEDLINE and CAB Abstracts in order to cover well-established journals and the more obscure gray and foreign language literature. In PubMed, the best results were obtained by performing 2 keyword searches: 1. *Theriogenology AND education* produced 341 results, and 2. *'animal reproduction' AND education* produced 240 results. There were 54 duplicates when these searches were combined, leaving 527 records.

In CAB Abstracts, the best results were obtained by using this search string: *(animal breeding OR castration OR spay OR theriogenology OR animal reproduction).mp. AND (veterinary schools OR veterinary education OR student*).mp.* where mp includes the abstract, title, original title, broad terms, heading words, identifiers, and cabicode record fields. This search produced 474 records and 46 were duplicates with the PubMed search and removed, producing a total of 955 records. Endnote software was used for managing and deduplication of records. Additionally, the

literature cited section of included studies were examined to identify any additional research worthy of inclusion. The few manuscripts directly submitted by the authors were verified as having been captured by the literature review.

Authors sorted through all records, applying the following inclusion criteria:

1. Does the paper discuss veterinary student education?
2. Does the paper discuss theriogenology or animal reproduction?

After this screening, a total of 59 papers remained (Appendix).

There were limitations in this study. It is possible that not all educational research papers in theriogenology were identified by direct solicitation or literature review, especially for publications in journals with limited availability. Other investigators may have chosen to include some different manuscripts, as there is some subjectivity in what is deemed to be veterinary student education, especially when considering programs varying in length that may or may not incorporate undergraduate training, and what is deemed theriogenology or animal reproduction, as there is overlap with basic sciences and with some clinical sciences, including surgery and medical imaging.

Barriers to educational research often are barriers of institutional culture, including lack of recognition of educational research as valid research, lack of faculty development and support for educational research, lack of funding, and lack

of a community of practice to provide mentoring and collaborations.^{1,3,4} It is our hope that providing this comprehensive list of educational research in theriogenology will provide a resource for educators and encourage collaboration within the American College of Theriogenologists and Society for Theriogenology for performance of further research.

Conflict of interest

None.

Authors' contribution

Dr. Root Kustritz conceptualized the study, solicited papers directly from colleagues, reviewed papers identified by literature review, drafted the paper, and completed revisions requested by the reviewer. Mr. Nault performed the literature review and helped prepare the electronic supplement containing all the citations and uploaded it to the university's institutional repository for readers of *Clinical Theriogenology*.

Both authors have read and approved the final version of the manuscript and have agreed to the submission.

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Appendix – Overview of educational research in theriogenology

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