

# Letters to the Editor

## AVMA policy on pregnant sow housing

In a recent *JAVMA* News article<sup>1</sup> on plans by several grocery, restaurant, and food service chains to eliminate sow gestation stalls from their supply chains, Dr. Tom Burkgren is quoted as saying, in relation to gestation stalls and pens, “Each [type of housing] can provide for sows’ welfare when properly managed, and caretaker skills are the most important factor.” The AVMA policy “Pregnant Sow Housing”<sup>2</sup> states that “there are advantages and disadvantages to any sow housing system,” which implies to me that neither of these housing systems provides adequate sow welfare.

With regard to gestation stall advantages, the AVMA Pregnant Sow Housing policy states “Gestation stall systems may minimize aggression and injury, reduce competition, and allow individual feeding and nutritional management, assisting in control of body condition.” I would point out, however, that minimizing aggression and injury, reducing competition, and allowing individual feeding and nutritional management do not require sows to be confined in stalls barely larger than themselves. These advantages are not exclusive to gestation stalls, but are characteristics of all types of individual housing, including enclosures in which sows have acres of room. I contend that the only reason sows are currently maintained in gestation stalls is economic.

Proponents of animal welfare cannot ignore economics because proposed solutions to animal welfare problems will inevitably fail if they do not take the real world into consideration, but economics has nothing to do with evaluating an animal’s welfare. Gestation stalls might be economically necessary, but because they prevent sows from performing practically every normal behavior, I believe it is disingenuous to imply that they can adequately provide for sows’ welfare.

I think it is unfortunate that the AVMA Pregnant Sow Housing policy is not more strongly worded. If the AVMA wants to be a leader in animal welfare, it cannot do so simply by stating that current animal housing options have advantages and disadvantages. Leadership cannot exist without, at the very least, a willingness to take a stance on pertinent issues. With its current policy, therefore, the AVMA has not yet begun to lead in the matter of the welfare of pregnant sows.

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patterns of behavior and minimizes stress).” All current housing systems necessitate some tradeoffs among these goals, and evaluating housing systems requires making value judgments as to which of these goals is more important than the others. The AVMA embraces an animal-welfare–friendly model of continuous improvement and, accordingly, encourages innovative approaches to housing that retain the advantages of current systems while resolving their disadvantages.

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1. Cima G. Retailers tell suppliers to end sow stall use. *J Am Vet Med Assoc* 2012;241:293–295.
2. AVMA. Pregnant sow housing. Available at: [www.avma.org/KB/Policies/Pages/Pregnant-Sow-Housing.aspx](http://www.avma.org/KB/Policies/Pages/Pregnant-Sow-Housing.aspx). Accessed Aug 23, 2012.

1. Making difficult welfare choices—housing for pregnant sows. AVMA@Work blog post, May 18, 2012. Available at: [atwork.avma.org/2012/05/18/making-difficult-welfare-choices-housing-for-pregnant-sows/](http://atwork.avma.org/2012/05/18/making-difficult-welfare-choices-housing-for-pregnant-sows/). Accessed Aug 28, 2012.

### Editor’s note:

Many of the concerns expressed by Dr. Koch have been addressed—directly or indirectly—in a recent post on the AVMA@Work blog.<sup>1</sup> As indicated in that post, the AVMA supports housing for pregnant sows that “(1) ensures good nutrition and, correspondingly, good body condition; (2) maximizes the health of the pig (ie, absence of disease and injuries); (3) provides a good environment in terms of things like air quality, temperature, and humidity; and (4) promotes good mental health (eg, supports the expression of normal

### Complementary and alternative medicine

The commentary<sup>1</sup> by Brennen McKenzie in the August 15, 2012, issue of *JAVMA* asks whether complementary and alternative medicine (CAM) can be compatible with evidence-based medicine. Given that studies of CAM modalities are being carried out at many major human medical centers and within the veterinary community, I would argue that the answer is yes. In addition, the federal government has shown strong interest in CAM through its support of the Na-

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Letters containing defamatory, libelous, or malicious statements will not be published, nor will letters representing attacks on or attempts to demean veterinary societies or their committees or agencies. Viewpoints expressed in published letters are those of the letter writers and do not necessarily represent the opinions or policies of the AVMA.

tional Institutes of Health's National Center for Complementary and Alternative Medicine, and many of the colleges of veterinary medicine in the United States are providing education on CAM.<sup>2</sup>

In fact, I would suggest that we are long past trying to decide whether CAM and evidence-based medicine can coexist and would instead point out that the human and veterinary medical fields are both progressing in their attempts to answer the more important question of how we can cooperate to evaluate CAM modalities. Research is currently being done at Colorado State University, Florida State University, and Louisiana State University, and groups such as the American Holistic Veterinary Medical Association and the American Holistic Veterinary Medical Foundation are building bridges to academia.

One of the major stumbling blocks in doing research in CAM is finding researchers who understand the techniques sufficiently to perform legitimate trials. However, I believe that this will be less of an issue as more veterinarians become trained in CAM and more research funding becomes available.

Much of Dr. McKenzie's commentary focused on clarifying definitions, but it does not directly address the question of how the principles of evidence-based medicine could be applied in practice. Should veterinary practice be limited only to those treatments supported by numerous randomized controlled trials incorporating large numbers of patients for which appropriate meta-analyses have been performed? If so, veterinary clinicians would have few tools to treat the various species we encounter. In my experience, evidence-based medicine is a good tool when evaluating treatments for which research evidence is available. However, I would suggest that there is a substantial knowledge gap regarding many of the treatments used in veterinary medicine, which leaves practitioners frustrated when attempting to apply the principles of evidence-based medicine to every case seen. For that reason, I prefer the evidence-based practice model,<sup>3</sup>

but that is a subject for later discussion.

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1. McKenzie BA. Is complementary and alternative medicine compatible with evidence-based medicine? *J Am Vet Med Assoc* 2012;241:421–426.
2. Memon MA, Sprunger LK. Survey of colleges and schools of veterinary medicine regarding education in complementary and alternative veterinary medicine. *J Am Vet Med Assoc* 2011;239:619–623.
3. Duggal D, Menkes DB. Perspective: evidence based medicine in practice. *Int J Clin Pract* 2011;65:639–644.

I am writing regarding the commentary "Is complementary and alternative medicine compatible with evidence-based medicine?,"<sup>1</sup> which was published in the August 15, 2012, issue of *JAVMA*. First, for the record, I would point out that the correct spelling of my name is Knueven.

Second, the author of the commentary has taken a quote from my book<sup>2</sup> out of its intended context. In support of his statement that "Although holism and reductionism, when properly and reasonably construed, can be complementary rather than antagonistic, the presumed incompatibility of these views is one of the most commonly cited reasons for why [complementary and alternative medicine] cannot be effectively evaluated by [evidence-based medicine] methods," the author quotes another author and then goes on to say, "Similarly, Kneuvén [sic] has stated that 'the concept of holism stands in direct opposition to the Western reductionist view.'" However, in the paragraphs immediately following that statement in my book, I use anatomy class as an example of reductionism and state that "I recognize the importance of such study and how it taught me about the parts of the body." I was not in any way implying that complementary and alternative medicine cannot be effectively evaluated by evidence-based medicine methods nor was the overall tone of the chapter antagonistic regarding the relationship between holism and reductionism. In fact, even a cursory reading of that chapter of my

book would inform readers that I embrace both Western and holistic medical approaches.

I would further point out that according to the commentary author, "[evidence-based medicine] adheres to the principle of methodological naturalism, which holds that scientific investigations must be limited to physical objects and processes that can be measured and manipulated and that obey laws of nature that can potentially be deduced." I find that statement completely contradictory to his next statement that "Methodological naturalism does not require taking a position on the existence or importance of supernatural forces; it merely excludes consideration of these from scientific investigation." If evidence-based medicine is to guide the practice of veterinary medicine but excludes consideration of supernatural forces, then evidence-based medicine has indeed taken a position on the concept of supernatural forces and has eliminated all but material considerations from the practice of veterinary medicine.

There are many intangibles that practicing veterinarians must take into account, not the least of which are compassion and the human-animal bond. These qualities are not physical objects or processes that can be measured and manipulated. I would contend that if these qualities are considered legitimate, then vitalism should be given equal consideration.

Finally, I would contend that the term evidence-based medicine, as used in the commentary, is an oxymoron. Medicine has been defined as "[t]he art of preventing or curing disease; the science concerned with disease in all its relations."<sup>3</sup> If evidence-based medicine is only concerned with "physical objects and processes that can be measured and manipulated and that obey laws of nature that can potentially be deduced," then how does evidence-based medicine apply to the art of medicine?

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1. McKenzie BA. Is complementary and alternative medicine compatible with

evidence-based medicine? *J Am Vet Med Assoc* 2012;241:421–426.

2. Knueven D. An introduction to holistic medicine. In: *The holistic health guide: natural care for the whole dog*. Neptune City, NJ: TFH Publications, 2008;5–29.
3. Medicine. In: *Stedman's medical dictionary*. 27th ed. Baltimore: Lippincott Williams & Wilkins, 2000.

### The author responds:

It is encouraging that Dr. Palmquist, a leading advocate of complementary and alternative veterinary medicine (CAVM), embraces the value of evidence-based medicine (EBM). However, it is disappointing to see him invoke the misleading notion that EBM calls for inaction in the absence of high-level evidence. What EBM requires is that we critically evaluate the available evidence, adjust our level of confidence in our recommendations on the basis of the reliability of this evidence, and explicitly acknowledge to ourselves and our clients the evidentiary basis of our practices. It does not make the perfect the enemy of the good by disallowing treatments before gold-standard research supporting them is available.

The so-called knowledge gap is neither a reason to do nothing nor a justification for doing as we please. It is a challenge to generate more and better research data and to continually reevaluate and adjust our practices as the evidence changes. This includes abandoning practices that research shows to be ineffective or that fail to generate supporting evidence after appropriate attempts have been made.

This can be a barrier to applying EBM to alternative medicine. As Dr. Palmquist mentions, the National Institutes of Health have spent over \$1.4 billion since 1992 investigating CAM modalities.<sup>1</sup> In general, this research has failed to support the hypothesized benefits of these interventions, but even those modalities that have been

shown to be ineffective continue to be popular and are still widely recommended on the basis of anecdote and other low-level evidence.<sup>2</sup> Unfortunately, there is a tendency in the CAM community to cling to well-established approaches, such as homeopathy, even when strong high-level evidence fails to demonstrate a benefit.<sup>3,4</sup>

I apologize for the misspelling of Dr. Knueven's name, and I am sorry that he feels my selections from his writing were taken out of context. I believed they accurately represented the tone of the book and the conflict CAM practitioners often claim exists between holism and reductionism. Nevertheless, while I believe my interpretation was reasonable, of course I defer to Dr. Knueven's assertions about his intent as an author.

I disagree strongly, however, with his comments on methodological naturalism. Although one may consider spiritual forces and other nonphysical phenomena to be real and important, we cannot subject these phenomena to scientific scrutiny and generate an objective data set upon which individuals with differing beliefs can agree. The evidence for such things is inherently personal and subjective and cannot be displayed or challenged in an empirical way that can resolve differences of opinion. One can demonstrate scientifically whether an antimicrobial is effective in eliminating urinary tract infection but not whether energy healing is effective at cleansing the spirit.

Evidence-based medicine relies on the idea that medical care that is founded on systematic, scientifically derived knowledge is more effective than care that is justified through haphazard, subjective sources of evidence. There is ample reason in the history of medicine to believe this is true. As the definitions I cited make clear, this does

not remove clinical judgment, compassion, or human and human-animal relationships from veterinary medicine. However, it does require giving precedence to higher-level evidence and acknowledging that individual, subjective judgment is deeply unreliable.

Vitalism, in contrast, is an approach to preventing or curing disease that is based on theories about entities that cannot be investigated scientifically but only understood through personal, individual sources of information, such as intuition and faith. If we accept this as a legitimate approach to medicine, then we must accept as valid any and all such theories since they can never be objectively proven true or false.

I believe our profession faces a choice between placing our trust in science, which requires validating, to the extent possible, our theories and practices through formal research, or accepting uncritically any vitalist practice without such evidence. I also believe the public expects us to rely on science rather than our personal spiritual beliefs when selecting treatments for their animals and that our patients are better served when we do so.

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1. National Center for Complementary and Alternative Medicine. Appropriations history. Available at: [nccam.nih.gov/about/budget/appropriations.htm](http://nccam.nih.gov/about/budget/appropriations.htm). Accessed Aug 23, 2012.
2. Offit PA. Studying complementary and alternative therapies (Erratum published in *JAMA* 2012;308:456). *JAMA* 2012;307:1803–1804.
3. Ernst E. A systematic review of systematic reviews of homeopathy. *Br J Clin Pharmacol* 2002;54:577–582.
4. Shang A, Huwiler-Müntener K, Nartey L, et al. Are the clinical effects of homeopathy placebo effects? Comparative study of placebo-controlled trials of homeopathy and allopathy. *Lancet* 2005;366:726–732.