Shelter Medicine Sustainability from an Academic Perspective: Challenges and Issues

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ABSTRACT
A meeting of veterinary school faculty and partners, many associated with shelter medicine and/or community medicine programming, was convened at the 2019 Shelter Medicine Veterinary Educators Conference in Pullman, WA, to discuss challenges with shelter medicine program sustainability and defining the future. The discussion was facilitated by an outside consultant and is summarized in this manuscript. The goal of the meeting was to identify challenges and issues concerning the needs and goals for shelter medicine curricula to have long-term success in academic training. Four themes were identified in the transcripts including external pressure from leadership and other stakeholders, funder expectations, time horizons, and perceptions of shelters and shelter veterinarians. Addressing these challenges will be critical to ensuring stability in academic training in shelter medicine, a critical tool for both learning outcomes for general graduates and specific for veterinarians pursuing shelter medicine as a career.

Key words: shelter medicine, veterinary education, community medicine, animal shelter

INTRODUCTION

In 2013, shelter medicine was defined as "a field of veterinary medicine dedicated to the care of homeless animals in shelters or other facilities dedicated to finding them new homes"[1] and has continued to develop, encompassing public health and community interventions for vulnerable animals in the One-Health context through interventions focusing on animal, human, and environmental health. Shelter medicine was recognized as a specialty by the American Board of Veterinary Practitioners in 2014.[2] The DACUM (Developing a Curriculum),[3] guidance for the shelter medicine specialist includes the domains of shelter animal physical and behavioral health; community and public health; alleviating companion animal homelessness; facilitating shelter management; addressing cruelty, abuse; and neglect; and advancing the field of shelter medicine.[4] The concept of shelter medicine as a unique discipline emerged with the first shelter medicine residency initiated at the University of California-Davis and the founding of the Association of Shelter Veterinarians organization in 2001.[5] Internships and residencies are currently offered at more than a dozen veterinary schools and large nonprofit animal shelters. Specialized certificate programs have been offered through innovative online modalities at the University of Florida since 2009, and online graduate programs followed in 2012.

Since Cornell University offered the first shelter medicine course in 1999,[6] several academic veterinary institutions have gone on to establish formal shelter medicine programs. The efficacy of these programs at raising student confidence in the area of shelter medicine[7] and improving student confidence in surgery through performing surgical sterilization procedures[8] have been preliminarily established, although additional research on program impacts is needed. A qualitative research study identified that veterinary students reflected changed perspectives on critical multidisciplinary issues essential to veterinary practice in journal entries after participation in shelter medicine clinical rotation.[9] Demand for shelter veterinarians is high[10,11] and veterinary students demonstrate a strong interest in shelter medicine as a career path, with veterinary school applicants rating shelter medicine as a second highest career interest in a recent survey[12] and more than 40% of veterinary students indicating interest in future employment in shelter medicine in a more recent survey.[11]

In addition to training veterinary students interested in shelter medicine as a career path, it is also critical to teach foundational shelter medicine concepts to all veterinary students. In 2020, Stavisky et al.[13] utilized a Delphi methodology to identify shelter medicine-specific learning outcomes for all veterinary graduates. In this process, 102 outcomes were identified within the domains of physical health, behavioral health, shelter management, public health, community medicine, public policy, and shelter medicine principles. The inclusion of shelter medicine objectives in the core veterinary curriculum is essential to meet societal needs for animal well-being and public health and ensure equable access to veterinary care as these principles are not typically taught by specialists in academia.[13]

Historically, academic shelter medicine programs were supported by outside grant funding aimed at creating shelter medicine-focused programming or specifically spay-neuter training for veterinary students, in contrast to other academic disciplines that more typically are supported by permanently allocated college funds. Over time these programs gained popularity with students and often became the primary source of surgery and primary care training for Day One practice readiness.[14] Despite assuming responsibility for teaching core

competencies, these programs often remain dependent on grant funding. Faculty time spent on fundraising and donor relations can detract from the research and teaching activities expected for advancement within academia. The absence of the permanent funding stream typically available to most other clinical educators can contribute to insecurity, difficulty in recruiting and retaining faculty, and reluctance of faculty to commit to development of long-term high-impact educational innovations.

As a result of dependence on grant funding and philanthropy, academic training themes for shelter medicine programs have often followed the priorities of funding organizations. Program focus has also varied across schools and universities, with some programs focused on specialty training in shelter medicine (to prepare trainees to work in animal shelters), some providing experience in primary care concepts,[15,16] and others creating a variety of experiences under the shelter and community medicine umbrella. Many universities also use shelter medicine-based programs to meet goals in core competencies identified by the American Association of Veterinary Medical Colleges (AAVMC) surrounding diversity, inclusion and equity, surgical training, and the more recent Competency-Based Veterinary Education (CBVE) objectives[17] for Day One practice readiness that are difficult to achieve in specialty referral teaching hospitals. While the variety of programs under the shelter medicine umbrella has allowed different schools to leverage their own strengths and local partnerships, it also may contribute to a broadening of mission that can place an additional burden on small faculty teams. These dedicated faculty members advocate for shelter medicine education in order to meet the needs of students and society at large.

An area of sustained confusion for academic shelter medicine programs is the relationship and potential overlap among the disciplines of primary care, shelter medicine, and community medicine. There is no universal consensus on how the terms primary care and community medicine should be defined for academic veterinary medicine. In some contexts, primary care medicine relates to care that is provided by general practitioners (non-specialists), while others define primary care by its emphasis on preventative medicine.[18] Community medicine is an area in the field of human medicine that encompasses the fields of community health, preventative and social medicine, health care equity, and public health.[19] In addition to the tension surrounding the general questions of "what is primary care?" and "what is community medicine?" there is also a lack of consensus among shelter veterinarians regarding how these areas in turn relate to the discipline of shelter medicine itself. While shelter medicine has increasingly come to include care for animals within the community, some shelter medicine faculty fear that folding shelter medicine under a wider umbrella of community medicine will lead to a loss of focus on traditional areas of expertise such as population management within the shelter, disease outbreak management, and welfare assessment. Further complicating the matter, programs at different veterinary colleges vary in the degrees to which population-level issues and access to veterinary care (community medicine) are included in the primary care training and uncertainty about who is responsible for that training.

The Shelter Medicine Veterinary Educators' Symposium met for the first time in 2016 as a group of faculties interested in connecting and exploring specific issues in shelter medicine education and has met annually at the AAVMC's Primary Care Veterinary Educators' Symposium.[20] The symposium has included invited speakers, panelists, and discussions to highlight issues in the academic teaching of shelter medicine and to brainstorm solutions. For example, discussions contributed to the first round of Delphi consensus building to identify learning outcomes for veterinary graduates in shelter medicine.[13] Sustainability in shelter medicine education, a recurring topic in each symposium, was the focus of a specific moderated focus group at the 2019 symposium. The purpose of the focus group was to bring together shelter medicine faculty to identify challenges and issues concerning the needs and goals for shelter medicine programs to have long-term success and sustainability in academic training. Specifically, the attending faculty identified areas to increase impact and also establish the field as critical in the veterinary medicine curriculum. Faculty discussed educational methods in veterinary education, issues in recruiting shelter veterinarians, training and mentoring veterinary students, and clinical instruction.

The challenge of sustainability and other themes discussed during the focus group are analyzed and presented here.

METHODS

Focus Group

Focus group participants included 33 shelter medicine faculty and staff from 16 AVMA-accredited universities. The focus group was facilitated by the Center for Behavioral Business Research (CBBR) at Washington State University. The focus group lasted for approximately 2 hours. Faculty were randomly assigned to five teams of six to seven members each and asked to address three questions:

1. What are your concerns about the shelter medicine curriculum over the long term?

2. As the field changes, how do we create sustainability in our funding?

3. How do we change the perception of shelter medicine across academia?

For each of the three questions discussed during the session, participants wrote their responses on notecards individually, then discussed their individual responses with their group, and finally shared their opinions with the other teams in a moderated discussion format. All responses were recorded both with audio and on whiteboards. Any responses that were unclear or that appeared to prime additional thoughts at either the team or group level were followed up by the facilitator.

Data Analysis

The recorded audio and written material were examined for emergent themes. These were identified by independent coders who were blind to the purpose of the discussion via an iterative categorization process. Specifically, two senior undergraduate coders created an initial topic list of words or phrases ordered by frequency. This list was iteratively refined to remove irrelevant and non-topical content. Next, the research team organized the specific topics into overarching, emergent themes. The senior undergraduate coders then coded all responses in the manuscript under these themes, with responses that did not fit into the themes categorized as "other." The responses to these emergent themes were then examined by the facilitator and a PhD student with expertise in marketing research (who was present during the session), with any context or interpretation added for clarity. The final summary of responses was then

edited to remove any residual content that might allow the identity of the participants to be revealed and to label the participants of the symposium ("interviewees") and the facilitator ("interviewer") throughout the document.

RESULTS

Four distinct themes were identified in the discussion:

1. External pressure from leadership, administration, and other stakeholders;
2. Funder expectations such as duration of support and expected outcomes;
3. Time horizon disconnect between curriculum change and student outcomes; and
4. Internal and external perceptions of shelters/shelter veterinarians.

External Pressure from Stakeholders

Here, stakeholders are defined as faculty, staff, college dean/administration, university, students, and funders. The most common example of external pressure was the dilution of the mission. Dilution of the mission was a talking point brought up by nearly every team. Specifically, interviewees believed that they were being "lumped in" with primary care, which they believed blurs their ultimate mission.

> *[S]ometimes it seems like we're lumped in with primary care but primary care in the very traditional sense … I think a lot of times in academia, that's where you end up lumped together and so I think that was a concern for me.*

Dilution of the mission was perceived to be driven by the administration:

> *If your administration thinks that you are primarily delivering primary care service, that's going to be different than I think what many [of the shelter veterinarians present at the focus group] find their mission to be.*

> *If you're not chasing granting and funding, you're chasing things like being valuable to the administration ... We do all labs for our first-years. Now, we do [the labs] in the shelter because we have a large supply of animals …*

These expectations in turn create pressure within the department to adhere to the desires of the administration:

> Interviewer: *"What's the pressure for this mission creep? Where's the pressure coming from?"*

> Interviewee 1: *"Administrators."*

> Interviewee 2: *"[Yep], external funders and administrators. Yeah."*

This outside pressure is also affecting curriculum development and increasing dilution:

> Interviewer: *"I'm assuming that would be a part of this interplay between administration, outside grantors, and you, and this pressure from all directions to move in a different direction than you're currently [going]."*

> Interviewee 1: *"All directions."*

> Interviewee 2: *"Not that they're wrong directions but it's just asking too much and giving too little."*

> Interviewee 3: *"[S]hifting the field and changing what we're doing and what that does for impacting our programs for long-term sustainability … [y]ou have a contraction of programs [due to] mission creep to try and target towards wherever the resources are."*

One interviewee, however, did perceive that these shifts might have some benefit in keeping shelter medicine relevant, but any benefit might come at the expense of other discipline areas:

> *Counter to that, I mean, I think it's also a good opportunity. There's a positive to it to make sure that we're relevant. I think we may or may not be motivated to take primary care but there's also some value that we do bring to primary care so it can be used in a positive direction, but I like the [notion of] dilution in the sense that each individual—if you're a program of one or two, you have to pick what space you're gonna operate in.*

Donor Expectations Related to Funding

The bulk of the discussion regarding concerns for shelter medicine curriculum over the long term (question one) addressed the intersection of mission creep, curriculum development, and sources of funding. Specifically, grantors were described as analogous to "venture capitalists" who were excited to start new programs but expected the administration to sustain them over time. This approach was perceived to clash with the needs of the faculty, as curricular development takes many years to establish.

> Interviewee: *"When a major funder was giving the universities very big grants to start shelter medicine programs, they were really clear that 'we are venture philanthropists and we are providing these start-up funds with the expectation that, Mr. Dean, you will sustain these programs in the future.' The funds were accepted, but unfortunately, the support didn't always materialize …"*

> Interviewer: *"From the administration side?"*

> Interviewee: *"Yeah."*

The following comment is in the context of hiring new faculty and acquiring new students for such a new program:

> *[W]e need to hire people to fill these [spots in a new program] and the funders are saying, "Oh, no. We're gonna give you a year or two of program [funding]." We've all started a lot of programs and then we can't sustain them cuz we can't keep the money going. That's the pattern the funders are asking us to continue is the problem.*

Interviewees suggest that the nature of shelter care makes it especially vulnerable to lack of outside funding:

> *I feel like every time you talk to a granting agency, they wanna fund a couple of years of [curriculum] and then … you're gonna figure out a way to become sustainable. I don't [see a way for] making nonprofit sustainable. I mean, we'd have to shake down the shelter dogs. We're going into communities where they can't access care because they don't have money. Even for programs that do some fee-for-service work or sliding scale … that's not gonna be pulling [in] funding.*

In terms of longer-term funding, faculty pointed out that donors should be willing to support a program over time.

> *[Donors] expect to keep giving and supporting to programs. I don't know if sustainability is code for the university taking*

it over, but the university can't shake the funds out of those animals any more than we can shake the funds out of those animals. University teaching hospital budgets are tight. I mean, program budgets are tight and so something that's not producing income is one of the first things to go, so I'm confused when the grants are asking for a sustainability plan. It always seems to be shaking down some other granting agency … playing round-robin [with] granting agencies does not seem to be a good sustainability model.

Further, while granting agencies usually require a sustainability plan in order to gain initial funding, no one in the audience had seen or found a workable sustainability plan. Thus, applicants were required to find new funding every 1–2 years. It was implied that sustainability plans in most grant applications were included to check the appropriate box:

[I]t's always been seeking other grantors, which is like, okay, so they're gonna also fund for a year or two … was a very tenuous way to keep being [funded] … [I]f you're not successful one year, it's not like you can peace-out for one year and come back, I mean, when you figured out the next grantor you're gonna shake down for a year or two.

[Sustainability is a] code for "we're going to fund you for three years and then you're going to figure something else out." We don't know what the other thing is so we like to talk about hybridized funding streams that involve donors, and clinical revenue, and a little bit of hard money, and continue grants but it's just all BS that you just put down there, so they're like, "Oh, yes, they have a plan for sustainability." Nobody has a plan for sustainability.

You're asking for [us to build sustainable programs] while teaching students. If you look at [other] nonprofits that are high-quality, high-volume spay and neuter, they are doing their job and they are not teaching students, which requires time. You cannot be as efficient as you would like to be in teaching [when building sustainable programs] … so it's choosing between the two. That's not a fair thing.

We need to create [programs that are] not dependent on a single individual's passion. We need to have positions that are funded and stable and that it's clear what they're delivering to the school and the value is perceived at the level of the school and that's where the resources should go.

This difficulty in sustaining outside funding is especially a problem when the administration does not step in to fill funding gaps left when a funding agent pulls out:

It feels like a bait and switch as far as getting schools to just start shelter [medicine] programs with internships and residencies. A lot of funding agents supported [new programs] so that the schools didn't have to. Then, as the funding agents pull back and the schools don't step in, you have a contraction of programs [due to] mission creep to try and target towards wherever the resources are. It just feels like a lot of the people who are making this their life mission over the last decade or two are suddenly wondering [whether the] dollars are [going to be there].

The loss of funding can prove ruinous for the programs themselves as one interviewee put it:

[W]hen the funding disappears, the enthusiasm for the program disappears.

Reluctance by the administration to fund these programs might be due to a perception that shelter medicine is not a core component of the veterinary program:

We talked about shelter medicine being first seen as kind of a niche thing and so that's why it's hard to get traction with the administration. It's not perceived as core [to the mission of the university]. It could be set up as core, framed as core … [T]here's this perception that [shelter medicine programs are] not a good investment. It's not like an emergency care resident that can bring revenue into the teaching hospital, so I think the funders feel that if they don't fund these programs, the schools will, but the schools are not gonna put resources towards these programs …

This difficulty in creating sustainable funding, one interviewee noted, was analogous to the difficulty that shelters have themselves, both in funding the shelter and keeping trained veterinarians around.

Time Horizon Disconnect between Curriculum Change and Student Outcomes

At its core, the discussion focused on the friction among funding, support of the administration, curriculum change, and student outcomes. Specifically, while funders generally expect positive student outcomes, participants do not see the support needed to be successful:

We've talked about that at our school about how can you just be enabling our schools to not put the resources into this program that students really need? I think that's where a lot of the funders are coming from. They're wanting the schools to step up, but [it's] a tough position where you're constantly going to administration and going, "You need to put resources towards these [programs] where those students are actually doing the things."

The speed at which grant funders want to see curriculum change is incompatible with the pace of academic medicine:

Academia is like a tortoise. They're moving really slow. These grant funders are little hummingbirds going everywhere.

They [funding agencies] want the next little thing that they're doing. They don't like that they have to wait around for that slower timeline to catch up, but if you just keep on changing, there's no way for that program to get where it needs to go. I think that maybe that's almost the biggest crutch because organizations, when you talk to them, they'll be really honest like, "We're mad that three years down the line, this program's not sustainable," but that's just not how academia works.

That's not even one cycle of students. When you're talking about changing curriculum and long-term sustainability, that's a 10- to 15-year thing in a vet school but none of these organizations—they're thinking one- to three-year timelines.

The funding agencies are asking us to have large university programs but they're devoting all of their funds to internships to get battle-ready shelter med that can go out into shelter but not to stay in educational programs.

One interviewee worried that this focus on short-term outcomes not only affects curriculum planning going forward but that it may reverse positive gains made by previous, traditionally established academic curriculum programs:

[W]hen you're talking about change, we're talking about curriculum change and that it's slow to make a difference. We get

locked in. We're seeing, in real-time, those students—making a difference with those students coming through our programs, but really, what we're talking about is long-term perspective change on these students when they get out, and what they do, and how they treat their animal organizations. That's a long-term play. If all [of a] sudden, you are asking us to change curriculum, you're missing the point on that long game that's coming 15, 20 years down the road because we're pulling the plug on maybe some of the things that we're doing that we're seeing as successful now, that's proved and successful but we're not gonna keep doing that. We're gonna get rerouted [to other programs] because there's a [potential] win somewhere else.

Participants were greatly worried about faculty burnout because of a lack of administrative support and funding issues:

Faculty are too distracted by fundraising and sustainability to focus enough time on education and research programs. When I was in a specialty referral service I could focus on teaching and research because I did not ever have to spend time worrying about earning my paycheck or paying staff. It's a huge burden both in the time-suck and stress and frustration that programs will end when their unique faculty leaves and just—[t]he pipeline for new faculty trained in shelter medicine [is] pretty dry.

Interviewer: *"Are you having trouble recruiting [faculty]? I see a lot of nodding heads."*

Interviewee: *"Oh, yeah. Right now, I don't think I could recommend my position to a new person. Because there's no resources for the training program."*

Faculty perceived this difficulty in recruiting new faculty members was due to a lack of resources but also to the requirements of the career under the current pressures described earlier, and the perception that shelter veterinarians are not valued. Here, a substantive discussion of issues around how to train students in surgery emerged. Not all schools have been able to support both extensive hands-on training in basic surgery skills and in high-volume spay/neuter. These aspects are prioritized differently at different schools, yet both approaches are needed.

There is a misconception [by funders] that schools will pick up high-quality, high-volume spay and neuter training [when grants end]. I just don't think that's true. The money will go back to the surgical programs because that's where the tuition-based funding goes.

Stakeholder Perceptions of Shelters/Shelter Veterinarians

Overall, the interviewees perceive shelter medicine programs as very popular with students, particularly because of extensive hands-on patient care experience and face-to-face time with faculty:

It's not just that [the students] get to touch animals through our program. They get to touch a lot of animals and get to spend time with animals … They get to help, they get to be veterinarians.

[Students] get one-on-one contact with faculty. I think that our faculty in this group are very devoted to teaching. [These faculty are] here in this difficult, academic, stressful environment [because] they care about teaching and that comes across too.

Unfortunately, this popularity does not seem to result in greater support from the administration:

It is interesting, though, that our admin has access to all of these metrics [indicating the success and popularity of shelter medicine programs]. They see teaching evaluations. They get the sorted list of the most popular rotations and the most popular instructors, and they hear the students talk about "I wanna come here because of shelter medicine." That's already known to administration and yet … they still take it for granted that shelter medicine's gonna be here and be a good recruiting tool for the schools but [that] hasn't translated into support.

The interviewees agreed that their colleagues did not really know what the shelter veterinarians did in their program:

[O]ur group spent a lot of time talking about the evidence-based approach and how that's a language that people speak across different specialties. We also talked about the fact that we have so much to do in our field on a daily basis that, sometimes, maybe we should put more priority on direct interfacing across other programs in the institution. If we're not doing that, then it's hard for people to know what our value is. Maybe we should be putting more time and emphasis on that.

Interviewer: *"Do you feel like other [specialty areas] don't know what you guys are doing?"*

Interviewee: *"No, no idea. They have no idea."*

Interviewees believed that changing perceptions requires more effort to communicate more with the other groups and administration:

I think we need to do a better job of telling our story more widely, especially starting in-house because the more of our colleagues in our own house that gain appreciation of the scope of the work that we do and the scope of training, the better the lobbying power with the administrators. I think we'd have a more powerful voice at the table where decisions are made if we did a better job at telling our story.

One strategy that emerged was a greater willingness to collaborate with researchers and faculty from other disciplines on shelter medicine research:

We are publishing a lot of excellent research and our peers do not know about it because they don't read articles [about] shelter medicine. They don't read the same journals. Perhaps, what we should do is start putting them on our projects. Put board-certified surgeons on our projects or whatever so that they're more prestigious and this literature starts to circulate in their fields and not just among us.

However, interviewees noted that there was professional jealousy from other departments because of shelter medicine being generally popular with students:

Interviewee 1*: "If we agree that we are coming from very popular, not very promoted programs in our universities, is there potential for any peer jealousy because they get tired of hearing about all the good things?"*

Interviewee 2*: "Yeah, that happens all the time. Yeah."*

Interviewee 3*: "It's certainly not acceptable for them to say that but that may be some of the underlying problems …"*

Interviewee 4*: "People directly say that in our institution. Yeah, they've heard enough."*

Cultural inertia is also another aspect of why veterinarians do not feel appreciated. Some attendees are looking toward cultural change as an optimistic thing:

I know it's probably frustrating to wait so long, but I think that if we keep pushing that maybe, hopefully; there will be that cultural change to where we are appreciated, where we are accepted, where we are supported.

DISCUSSION

Shelter medicine programs are led by passionate faculty in veterinary medical institutions that have forged meaningful partnerships across communities, within the US and internationally. These partnerships and programs have deep value to academic institutions and represent core training areas and career fields for graduating veterinary students. In shelter medicine programming, students are exposed to core veterinary concepts difficult to attain in other spaces such as small animal population medicine, public health, community-based programming, and diversity, equity, and inclusion (DEI). Shelter medicine programs are extremely popular with students as the content is relevant to both general and shelter practice careers. Moreover, students get to interact directly with both faculty and animals and students have substantial opportunities for hands-on-learning in a safe and observed space. This popularity can be leveraged to facilitate learning and support for shelter medicine programming.

Shelter medicine is also a viable career option with high demand[10,11] for competent veterinarians, most often without veterinary specialization. Existing DVM/VMD curricula can successfully train veterinarians to step into these positions. Proper training and exposure ensure that shelter and community animals are protected and that veterinarians are valued in the shelter space, where navigating non-profit management community-based programming, and population medicine require the unique skill set of a shelter medicine veterinarian.

Academic leaders have approved the development of impactful programs, but as academia moves forward to addressing the financial sustainability of these programs, a stable foundation of support is vital to good strategic planning, effective community programming, and successful academic training. The interrelationship among administration, donors/funders, and faculty is critical to the success of academic programs, although historically an alignment of expectations and goals across stakeholders has been challenging to achieve. Specifically, the time horizons for donors/funders often have not been compatible with time horizons for the development and impact of academic curriculum. Examining the programmatic health over a 5–10-year time period is essential for realistic goals and measurable outcomes for all partners in the success of academic shelter medicine. Utilizing strategic planning with meaningful engagement, commitment, and support can help combat the tendency to alter the mission in response to what could be short-term trends, lack of sustainable core operational funding, and misconceptions from academic colleagues about the realities of best practice community engagement and shelter medicine. Administration, partners, and funders should be informed by shelter medicine education leaders about how strategic misalignment, mission dilution, and insecure funding affect the viability of shelter medicine programs, especially as consistent external funding becomes less available.

By developing collaborative relationships, the field can facilitate appreciation for shelter medicine and community outreach as a career. Indeed, many veterinarians are currently employed by non-profit institutions as well as low-cost for-profit veterinary clinics.[11] Like other specialties that leverage the evidence-based knowledge of specific and advanced academic practice to develop guidelines and teach basic principles of the discipline, shelter medicine plays a critical role to inform the training and practice of general practitioners. Understanding shelter practice standards, welfare, and decision making with an evidence-based public health approach within a spectrum of care are crucial for veterinary graduates, whether they pursue shelter medicine or other areas of practice.

Shelter medicine programs and universities must prevent faculty from leaving because of mission dilution, stress, or burnout from having obligations not just in education, research, and clinical roles but also in operational funding and heavy administrative load. Sustainability is particularly difficult because longer-term transformative funding (such as that driven by an NIH grant program or endowed professorships) are not common in this sector and short-term funding leads to a heavy workload. Also, shelter medicine curricula reflect not just surgical training, but encompass the breadth and depth of the specialty including public health, population medicine, community work, policy, behavior, and preventative and general medicine in addition to a unique emphasis on contagious disease. This breadth of study requires well-rounded and creative faculty with the energy to be innovative. As shelter and community medicine programs engage the next generation, academia and the discipline of shelter medicine have an opportunity to make changes to ensure responsible and impactful program building to benefit students, the university, and the veterinary field. This focus group has allowed a robust discussion surrounding a relatively new field to take substantial steps in ensuring it has lasting core training requirements in veterinary school curriculum not only because of demand but teaching opportunities for core concepts and needs from the wider community, especially those not typically served by veterinarians.

CONCLUSION

Shelter medicine is a discipline that has garnered interest from internal and external stakeholders, most importantly current and future students, and has the potential to be a cornerstone program at the heart of veterinary universities and colleges. Creating sustainability is essential to ensuring these programs are available in the future and have a voice in academia. Four themes that emerged from the focus group described in detail in this manuscript delineate much of the conflict surrounding long-term sustainability: mission dilution because of external pressure from leadership, administration, and other stakeholders, donor expectations related to funding, such as amount and duration of support, a related disconnect between the expected time investment required for curriculum change and subsequent student success, and university perceptions of shelters/shelter veterinarians. By identifying these areas, we hope to start a dialogue about how all stakeholders can collaborate to ensure that shelter medicine training is a core part of the curriculum that is able to help address community-based issues including those in the non-profit DEI space. Veterinary shelter medicine programs benefit the universities and the communities they serve. However, it will take a profession-wide effort from all stakeholders to address the challenges and issues discussed here.

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