

Factors Associated with Veterinary Clinical Faculty Attrition

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ABSTRACT

Faculty attrition and recruitment for veterinary clinical faculty positions have been reported as significant problems in veterinary medical education. To investigate the factors that may be important in veterinary clinical faculty retention, the perceptions and views of veterinary clinical academic faculty were determined using a web-distributed electronic survey. Responses were dichotomized by whether the respondent had or had not left an academic position and were analyzed for their association with faculty attrition. A total of 1,226 responses were recorded, and results demonstrated that factors other than compensation were associated with veterinary clinical faculty attrition, including departmental culture, work-life balance, and recognition and support of clinical medicine by the administration. Forty-four percent of respondents who had held a faculty appointment reported leaving academia either voluntarily or for non-voluntary reasons such as failure to achieve tenure, retirement, or having their position closed. Attention to correcting deficiencies in workplace culture and professional rewards could be a beneficial means by which to decrease the faculty attrition rates currently observed in clinical academic veterinary medicine.

Key words: faculty development, veterinary faculty retention, faculty attrition, veterinary leadership

INTRODUCTION

Recent publications have described the problems of faculty recruitment and retention in veterinary medical education.¹⁻⁴ The problem of faculty attrition is not limited to veterinary medicine; it has also been examined in human medical education, and has been the subject of studies in numerous other academic disciplines. In one study of clinical faculty in human medicine, 4 out of 10 physicians had left academic medicine over a 10-year period.⁵

In addition to loss of faculty members and the associated loss of experience and expertise to the training ranks, there is an administrative cost associated with this turnover. In one report, medical faculty turnover was calculated to cost approximately 5% of the total operating budget of a medical training facility,⁶ while another study found the average cost of replacing one generalist and one specialist clinician was \$115,000 and \$286,000, respectively.⁷ The cost associated with replacing a veterinary clinical faculty member is not known at the present time.

A formal, mathematical model describing faculty attrition has been constructed that includes the categories of professional priorities and rewards, administrative relations and supports, and the quality of benefits and services. This model has been shown to be accurate in predicting faculty morale and turnover.⁸ The category of professional priorities and rewards attempts to capture what is important to faculty members in terms of their work and the rewards they receive for that work. These include, for example, the presence of intellectual challenges to work on, and some degree of autonomy (what they teach, how they teach,

and what they study and publish). Administrative relations and support includes those items that reflect the confidence faculty members have in institutional leadership. The final important category is the quality of benefits and services, including salary, staffing, working conditions, and resources necessary to complete one's responsibilities. While salary is important in this category, access to research support, graduate assistants, and technical support, as well as issues related to collegiality and quality of work environment are also deemed important factors.

While some within academic veterinary medicine believe that the primary and perhaps sole cause of the observed faculty attrition is compensation, the data supporting this position are limited. In an article by Hubbell reviewing the status of veterinary teaching hospitals, several current and future challenges were identified.³ Among these, he reported that changes in opportunities in private practice (e.g., an expansion in numbers, as well as higher compensation) are considered to be primary motivators for the shortage of qualified faculty. However, no data were offered in support of these positions. Studies of human and veterinary medical faculty have found numerous other factors that have a substantial influence on either intent to leave or actual attrition, including (1) lack of flexibility in scheduling, (2) perception that clinical excellence is not highly valued by the administration, (3) difficulty managing work and family responsibilities, (4) relationships with colleagues and administrators, (5) opportunity to increase compensation in the private sector,

(6) poor faculty development, and (7) poor departmental culture.^{2,7,9–11}

The modern academic workplace is considered by some to be very different from that of only a few years ago.^{12,13} Changing student and faculty demographics, represented by a large increase in women faculty, and changing cultural values of those termed the “Generation Xers” are having a profound effect on how early career faculty view their workplace and what they desire and value from their careers. Generation X faculty have been reported to be more likely to value work–life balance and workplace culture more highly than salary.^{12,13} However, a study on attitudinal differences between Generation X and Baby Boomer veterinary faculty did not demonstrate any attitudinal differences among faculty, although there were differences between faculty and house officers.¹⁴ The proposed discord of values between the Baby Boomer, Gen-X, and Millennial generations and the reward and cultural environment of academia, which are rooted in tradition, may also affect the interpretation of past and future studies on this topic.

The purpose of the current study was to determine factors that may influence a faculty member’s decision to leave clinical academic veterinary medicine. The null hypothesis to be tested was that there is no difference in the responses of faculty members who have and have not left veterinary clinical academic medicine (VCAM). The study methods were evaluated and approved by the Michigan State University Research Compliance Committee for human subjects.

MATERIALS AND METHODS

Survey Subjects

Potential survey participants were identified as any veterinarian holding board certification in one of the 22 recognized clinical specialties of the American Veterinary Medical Association (AVMA). The specialty organizations are administered by the American Board of Veterinary Specialties (ABVS), under the AVMA umbrella. The study author contacted the executive director of the ABVS, who agreed to distribute the survey link (via specialty presidents) with information about the survey to all board-certified veterinary specialists. The message included a request that specialists complete the survey, as well as an explanation of the survey purpose provided by the study author. The total membership of the specialty organizations that were solicited included approximately 10,000 individuals.

Survey Construction and Administration

The survey questions were constructed based on factors identified as significant in the literature of medical/veterinary medical faculty attrition, as well as factors that have been postulated in the literature or in the study authors’ professional discourse and experience. In addition, basic demographic data such as age, gender, ethnicity, academic rank, and clinical discipline were collected to assist in data analysis. Questions were constructed using a Likert-type scale to determine the respondents’ agreement with a series of statements intended to elucidate

their experiences in and perceptions of clinical academic veterinary medicine.

Prospective study respondents were notified of the purpose of the study, provided with a statement indicating the manner in which the data were to be collected and secured, and allowed the opportunity to participate or not without any consequences. The survey was administered using Qualtrics Inc. proprietary survey software, which is the survey software used by Michigan State University. The survey data were collected in a manner that did not allow identification of the individual.

Data Analysis

Data were transferred to a commercial desktop computer statistical analysis program (SAS 9.3, SAS Institute, Cary, NC) for analysis. Summary demographic information and responses to questions were collected, and the responses dichotomized based on the question “have you left academic medicine—Y/N?” Data from respondents who indicated that they had left clinical academic veterinary medicine (principles) were compared to data from those who had not (controls). Summary information included the number and percentage response for each category by question. Continuous data were summarized by calculating the mean and one standard deviation of the mean (*SD*), and differences were determined using students *t*-test. For analysis of nominal data, differences between the two study populations were compared using non-parametric methods (e.g., Chi-square) with statistical significance predetermined as $p < .05$. In addition, the weighted kappa statistic between all responses was calculated using conventional methods.¹⁵

RESULTS

The survey was available online from July 7 to 21, 2015. A total of 1,226 surveys were returned, for a response rate of 12.3%. Not all questions were answered by every respondent. Of the respondents, 577 (48%) were male and 623 (52%) were female. The average age of respondents was 50.6 ± 9.5 years for males and 45.9 ± 11.3 years for females (mean \pm *SD*) ($p < .001$). Responses were received from members of 21 of the 22 recognized veterinary clinical specialty organizations; no responses were received from any members of the American College of Poultry Pathologists. Of the respondents, 876 indicated that they had at some point held or were currently holding an academic appointment, and 386 of these indicated that they had left veterinary academic medicine (44.2%), resulting in 55.8% retention across all clinical disciplines. Of those who were currently in VCAM at the time of the survey, the average number of years of service was 11.5 ± 10.6 for women and 12.8 ± 10.7 for men ($p = .074$). Over 93% of respondents identified as Caucasian or of European descent, while 7% identified as members of other ethnicities.

A total of 549 (45%) respondents were in an academic position at the time the survey was completed, in contrast to 669 (55%) who were not in clinical academic veterinary medicine at the time of the survey. Of respondents in an academic position, 63.9% (351/549) were in a tenure-track position and 34.4% were in clinical (189/549) or research

Table 1: Summary of demographic information for faculty who have or have not left VCAM

	Have left VCAM	Have not left VCAM	<i>p</i>
Current age (years)			
<i>n</i>	385	483	<.001
Mean (\pm SD)	50.9 (11.0)	48.2 (10.9)	
Years of service			
<i>n</i>	386	489	<.001
Mean (\pm SD)	9.8 (9.3)	14.4 (11.5)	
Gender			.06 ($\chi^2 = 3.65$)
Male	52.7% (204/387)	46.2% (226/489)	
Female	47.3% (183/387)	53.8% (263/489)	
Highest academic rank achieved*			<.001 ($\chi^2 = 106.42$)
Clinical Instructor	26.9% (104/387)	7.6% (37/489)	
Assistant Professor	35.4% (137/387)	30.1% (147/489)	
Associate Professor	20.4% (79/387)	27.0% (132/489)	
Professor	17.3% (67/387)	35.4% (173/489)	

* Refers to the highest rank the respondent achieved before leaving VCAM

Table 2: Percentage of respondents in each clinical specialty who have left VCAM

	Left VCAM?			Attrition rate
	Yes	No	Total	%
American College of Veterinary Internal Medicine (LA)	39	71	110	32.5
American College of Veterinary Internal Medicine (SA)	70	115	185	36.4
American College of Veterinary Surgeons (LA)	48	57	105	40.1
American College of Veterinary Surgeons (SA)	66	51	117	51.9
American College of Veterinary Internal Medicine—Neurology	27	19	46	54.0
American College of Veterinary Internal Medicine—Cardiology	15	24	59	35.7
American College of Veterinary Internal Medicine—Oncology	25	35	60	37.9
American College of Veterinary Nutrition	4	5	9	44.4
American College of Laboratory Animal Medicine	1	0	1	—
American College of Poultry Veterinarians	0	0	0	—
American College of Theriogenologists	8	17	25	30.1
American College of Veterinary Behaviorists	10	4	14	55.6
American College of Veterinary Clinical Pharmacology	0	3	3	—
American College of Veterinary Dermatology	23	19	42	58.1
American College of Veterinary Microbiologists	1	3	4	—
American College of Veterinary Pathologists	1	2	3	—
American College of Veterinary Preventive Medicine		2	2	—
American College of Veterinary Radiology	3	6	9	—
American College Veterinary Sports Medicine and Rehabilitation	7	13	20	35.0
American College of Zoological Medicine	0	1	1	—
American College of Veterinary Emergency and Critical Care	12	18	30	38.7
American Veterinary Dental College	13	11	24	46.4
American College of Veterinary Ophthalmologists	26	20	46	49.0
American College of Veterinary Anesthesia and Analgesia	12	20	32	36.4
American College of Animal Welfare	0	1	1	—
American Board of Veterinary Toxicology	7	11	18	38.8
American Board of Veterinary Practitioners	35	33	68	42.7
Total	386	479	865	40.8

Table 3: Summary of responses regarding issues related to teaching from faculty who have or have not left VCAM

Question	Have left VCAM	Have not left VCAM	p
	Agree (Total)	Agree (Total)	
Teaching load too high	141 (343) 41.1%	162 (438) 37.0%	.240
Teaching load too low	54 (323) 16.7%	51 (421) 12.1%	.073
Little interest in teaching	28 (354) 7.9%	23 (450) 5.1%	.106
Unable to teach in preferred manner	79 (340) 23.2%	82 (450) 18.2%	.083
Unable to teach preferred courses	64 (323) 19.8%	84 (441) 19.0%	.079
Unable to enforce appropriate standards for students	207 (340) 60.9%	199 (445) 44.7%	<.001

Responses are presented as the percentage of respondents who are in agreement with the associated statement. Responses of *no opinion* are excluded from analysis.

(9/549, 1.6%) positions. There was a significant difference ($p < .001$, $\chi^2 = 20.56$) in the proportion of people who had left academic medicine based on academic rank (see Table 1). Early career faculty (Clinical Instructors or Assistant Professors) left at a much higher rate than faculty in higher academic ranks (Associate and Full Professors). Response by clinical discipline, reported in Table 2, demonstrated a range of attrition from 58.1% (American College of Veterinary Dentistry) to 30.1% (American College of Theriogenology). Due to the substantial number of disciplines with very few responses, the attrition rate by discipline was not statistically evaluated.

Those who indicated that they had left VCAM provided various reasons for leaving. These included retirement (41/386, 10.6%), closing or elimination of their position (43/386, 11.1%), a negative tenure decision (9/386, 2.3%), and other reasons (293/386, 75.9%). Of those who left academic veterinary medicine at any time during their career, 298 (77.2%) did so to enter private clinical practice, 29 (7.5%) entered industry or government service, and 23 (5.9%) remained retired. Thirty-seven people reported other activities. In textual comments, respondents listed a variety of activities, including consulting, part-time work, and advanced study, among others.

The survey was constructed around three major components of academic life, namely teaching responsibilities, institutional culture and support, and professional priorities and rewards. For the purposes of analysis, responses of *no opinion/not applicable* were excluded from analysis. Responses of *somewhat agree* or *strongly agree* were combined into *agree* and responses of *somewhat disagree* or *strongly disagree* were combined into *disagree*. Responses were dichotomized according to whether the respondent had or had not left VCAM. For the 876 individuals who indicated that they now held or had at one time held an academic position, there were 823 responses to the questions regarding respondents' opinions of various factors

influencing their decision to leave academic clinical veterinary medicine. The number of *no opinion* responses removed from analysis varied by specific question, so the denominator for percentage calculations varies in Tables 3–5 and in the following sections.

Teaching

Results related to teaching activities are summarized in Table 3. In brief, of the questions specifically related to teaching, the only one that achieved statistical significance was that the respondent "was unable to enforce appropriate standards for students" ($p < .001$, $\chi^2 = 20.16$). Of people who had left academic medicine, 60.9% (207/340) somewhat or strongly agreed with the statement, while 44.7% of people who had not left academic medicine somewhat or strongly disagreed.

Institutional Culture and Support

Summary responses related to institutional culture and support are provided in Table 4. Responses to numerous questions differed between those who had left clinical academic veterinary medicine and those who had not. Statements eliciting the greatest response disparity between the principles and controls included "support for clinical instruction and service is poor," "unable to practice in preferred manner," "departmental culture poor or negative," "little opportunity to participate in governance," and "department does not foster a sense of academic community." The results indicated a high percentage of agreement among both study groups with the statement that there was "substantial frustration with hospital bureaucracy," although the percentage of agreement was higher for those who had left clinical veterinary academic medicine than for those who had not (83.9% vs. 72.7%; $p < .001$, $\chi^2 = 14.0$).

Table 4: Summary of responses in the category of “institutional culture and support” from faculty who have or have not left VCAM

Question	Have left VCAM	Have not left VCAM	p
	Agree (Total)	Agree (Total)	
Support for clinical instruction and service is poor	234 (356) 67.0%	210 (444) 47.0%	<.001
Unable to influence curriculum	178 (336) 52.9%	167 (438) 38.1%	<.001
Quality of clinical service provided is below expectations	91 (346) 26.3%	91(449) 20.3%	.045
Unable to practice in preferred manner	115 (345) 33.3%	76 (431) 17.6%	<.001
Substantial frustration with hospital bureaucracy	292 (345) 83.9%	317 (436) 72.7%	<.001
Department culture makes it difficult to keep up	109 (349) 31.2%	129 (450) 28.7%	.431
Too great of an expectation for outreach, public service, or public relations	86 (210) 40.9%	117 (434) 26.9%	<.001
Lack of flexibility in schedule	137 (350) 39.1%	126 (450) 28.0%	<.001
Departmental culture poor or negative	220 (375) 58.7%	182 (449) 40.5%	<.001
Inability to comment upon performance of institutional leadership	193 (334) 57.8%	215 (432) 49.8%	.027
Little opportunity to participate in governance	154 (321) 48.0%	140 (428) 32.7%	<.001
Poor institutional quality or reputation	64 (343) 18.6%	77(442) 17.4%	.654
Geographic location undesirable	110 (366) 30.0	104 (472) 22.0%	.008
Department does not foster a sense of academic community	178 (375) 47.5%	151(479) 31.5%	<.001

Responses are presented as the percentage of respondents who are in agreement with the associated statement. Responses of *no opinion* are excluded from analysis.

Professional Priorities and Rewards

In the area of professional priorities and rewards, there were significant differences among respondents for a variety of questions (see Table 5). The greatest disparity between principles and controls was noted in response to “clinical teaching and service is not recognized for professional advancement,” with 79.1% of those having left clinical veterinary academic medicine agreeing compared to 57.4% of those who had not left agreeing with this statement ($p < .001$, $\chi^2 = 42.15$). Similarly, there was a significant difference in the responses to the statement that there was “poor potential for advancement” (54.7% vs. 33.6%, left vs. not left; $p < .001$, $\chi^2 = 34.34$). A greater proportion of those who had left VCAM also agreed with

the statement that “compensation was inadequate” (80.2% vs. 69.2%; $p < .001$, $\chi^2 = 12.47$).

Weighted kappa results for the study responses are summarized in Table 6, with only those with a kappa value greater than .3 reported. The interpretation of kappa values is challenging and there is no universal agreement, but in general values $< .2$ are considered poor agreement, while values $> .4$ are considered good to very good agreement.¹⁵ For this study, a cut-off value of .3 was arbitrarily chosen for inclusion in the table. Examining these correlations provides added information about the respondents’ perceptions of the questions. For example, the results indicated that several factors influenced an individual’s response to the statement that departmental culture was poor.

Table 5: Summary of responses in the area of “professional priorities and rewards” from faculty who have or have not left VCAM

Question	Have left VCAM	Have not left VCAM	p
	Agree (Total)	Agree (Total)	
Clinical teaching/service not recognized for professional advancement	277 (350) 79.1%	260 (453) 57.4%	<.001
Too great of an expectation for research	240 (347) 69.2%	244 (449) 54.3%	<.001
Compensation inadequate	287 (358) 80.2%	315 (455) 69.2%	<.001
Opportunity to increase compensation in another sector	210 (329) 63.8%	237 (400) 59.2%	.206
Lack of an incentive program	284 (339) 83.8%	323 (413) 78.2%	.054
Opportunity to reduce total hours worked by leaving VCAM	175 (314) 55.7%	204 (323) 63.2%	.056
Lack of meaningful feedback	186 (343) 54.2%	189 (443) 42.7%	.001
Frustration with the tenure process	154 (264) 58.3%	185 (374) 49.5%	.027
Poor potential for advancement	179 (327) 54.7%	147 (438) 33.6%	<.001
Challenges balancing work and family	204 (333) 61.3%	330 (440) 75.0%	<.001
Little interest in research	136 (357) 38.1%	93 (450) 20.7%	<.001

Responses are presented as the percentage of respondents who are in agreement with the associated statement. Responses of *no opinion* are excluded from analysis.

DISCUSSION

The present study represents one of the few efforts to systematically examine the causes of faculty attrition in VCAM. The findings extend the limited knowledge on this topic in veterinary academic medicine and offer additional perspectives. The study provides a snapshot in time of faculty perceptions of clinical veterinary academic medicine, and attempts to understand which factors actually led to people leaving academic medicine. Results in the present study are similar to those of previous studies, but differ in several particular areas.

The problem of faculty retention and attrition has been studied fairly extensively, with studies directed at evaluating faculty satisfaction and morale,^{11,16–20} rewards,^{2,8} and motivation and productivity.²¹ These studies reflect the large number of factors that influence the complex decisions and feelings individuals have about their careers and career choices, yet this complexity makes it very challenging to draw conclusions about how the factors involved are actually driving decision making. Further, there may be differences among different faculty disciplines and the different institutions in which people work. A wide range in the rates of attrition was noted among the different

clinical disciplines, suggesting additional study is needed to fully appreciate and address the challenges of veterinary clinical faculty attrition.

It is also important to consider generational differences among the faculty; earlier studies may disproportionately reflect the views of a generational or gender demographic that no longer reflects the mix of people in academia. That this occurs is reflected in a study by Rosser indicating that faculty perceptions have changed over the last 10–15 years, which is consistent with changes in faculty composition.²² Results of research are inconsistent in their findings regarding the impact of this change, however. Jovic et al. studied the attitudes of different generations and genders toward the number of hours worked and their attitudes to work–life balance. This study found significant generation and gender shifts in physicians’ attitudes; however, there was no difference between generations or genders in the number of hours worked and their views toward patient care.²³ A similar study conducted among veterinary faculty also found little difference in attitudes between Generation X and Baby Boomer generations, although differences were found between faculty and house officers.¹⁴ These studies did not examine the

Table 6: Cross-tabulation of weighted kappa scores with a value of $>.3$ for all questions in survey

	Departmental culture poor or negative	Unable to comment upon performance of institutional leaders	Little opportunity to participate in institutional governance	Department did not foster a sense of academic community	Frustration with hospital bureaucracy	Poor potential for promotion or advancement
Lack of consistent or credible performance evaluation and feedback	.378	.335	.304	.426		.341
Clinical service and teaching not recognized for advancement	.300	–	–	–	.310	–
Unable to comment upon performance of institutional leaders	.455	–	.470	–	–	–
Little opportunity to participate in institutional governance	.328	–	–	–	–	–
Department did not foster a sense of academic community	.552	–	.345	–	–	–
Frustration with tenure process	–	–	–	–	–	.392

effects of these differences (if any) on leaving or remaining within academic medicine. Due to study design, it was not possible to fully examine the impact of generational differences in the present study. The results did not indicate a difference in retention based on gender, which is consistent with the findings of Lowenstien et al. in a study of human medical school clinical faculty,¹¹ but different from findings in other, earlier studies.^{24,25}

While there are several studies examining faculty turnover—that is, leaving one institution and going to another—there are fewer studies examining why faculty, and medical faculty in particular, leave academia altogether (faculty attrition). One study found that the two most important predictors of faculty members’ intent to leave were a sense of frustration due to time constraints and a lack of a sense of community at their institutions.²⁶ A more recent study of faculty attrition found that being in a “hard-applied” discipline (such as medicine), not having a spouse or partner, perceiving a lack of support, perceiving a lack of fit, experiencing the stress of raising a family, and experiencing dissatisfaction with certain aspects of the “faculty job” were key predictors of faculty leaving academic medicine altogether.²¹

While it is seemingly widely believed that attrition rates among veterinary clinical faculty are very high, there is little objective evidence to support this belief. Jelinski et al. reported retention of only 35% for veterinary radiologists,⁴ while Adams et al. reported retention of 65% for veterinary surgeons.² The results of the current study found a retention of 55.8% across all veterinary clinical disciplines. This is similar to the retention that Corrice et

al. reported for human academic medicine, which ranged from 63.2% to 75%.²⁷ Faculty retention in Corrice et al.’s study varied by clinical discipline, with retention in an academic setting being highest for emergency medicine clinicians and lowest for ob-gyn clinicians. In the present study, faculty attrition varied depending on the clinical discipline of the respondent; however, this was not statistically evaluated. Further study is warranted to examine discipline-specific factors associated with attrition.

In a report of human medical faculty attrition, attrition rates were associated with academic rank, with first-time associate professors leaving academic medicine at a rate higher than others (43%).⁵ These results are consistent with the findings of the present study, which found that attrition for individuals at the level of Clinical Instructor or Assistant Professor was much higher than that for individuals of higher academic rank. The reasons for this remain unexplained in the present study, but Cropsey et al. found that a major factor related to attrition was discontent with the potential for career growth and professional advancement, indicated as a major factor by 29.8% of study participants.²⁸ Similarly, 42.6% of all respondents in the present study agreed with this position. Of those respondents who had left VCAM, 54.7% agreed that there was poor potential for advancement, compared to 33.6% of those who had not left. There was significant correlation between this statement and the perception that consistent or credible performance evaluation and feedback are lacking, and that the tenure process is frustrating. While it is not surprising that people of higher academic rank have lower rates of attrition, as people

investing the time to achieve a higher rank are more likely satisfied with their job, it does highlight the concerns of early career faculty and suggest the need for further study of this problem.

In a survey of veterinary surgeons, Adams et al. reported that the most common reasons for faculty leaving academic medicine were an undesirable geographic location, a lack of interest in research, a perceived lack of administrative support for clinical medicine, excessive expectations for research productivity, and issues of compensation.² Adams et al. reported that compensation was the most frequent factor cited, indicated by 72% of diplomates who had left academic medicine. However, of 149 surgeons who had left academic medicine, only 17 listed compensation as their sole reason for leaving. Most respondents (129) also indicated other factors that led to their decision to leave academia.

The findings of Adams et al. and others are similar to those of a survey of board-certified veterinary radiologists in which wages and benefits, lack of interest in research, geographic location of the institution, and family considerations were the primary causes for leaving academic positions for 59 of 129 veterinary radiologists.⁴ This survey requested that respondents rank the importance of various factors on a scale of 1–5, with 1 = *not important* and 5 = *very important*. It is important to note that 48.1% (26/54) individuals ranked compensation a 3 or lower, suggesting that it had little importance to that individual. Further, 17 respondents selected “other” factors (31.5%), among them “politics” ($n = 6$), issues related to tenure ($n = 4$), and lack of support or mentorship ($n = 3$).⁴

In the present study, a large majority of respondents in both study groups indicated agreement with the statement that “compensation was inadequate,” although more of those who had left VCAM agreed with the statement than those who had not left (80.2% vs. 69.2%; $p < .001$). However, there was no statistical difference in the number reporting that there was an opportunity to increase compensation in another sector, and a very weak kappa statistic ($< .3$) between these two questions. Collectively, these results seem to suggest that while most faculty consider compensation issues to be important, individuals may perceive the issue very differently when it comes to faculty attrition.

The psychology of pay satisfaction has been studied and, consistent with this report, several interacting factors have been reported. Compensation satisfaction is a multi-dimensional factor influenced by individuals’ personalities and the characteristics of the specific job, including organizational attributes, organizational commitment, and distributive justice.²⁹ Issues of organizational commitment and justice reflect leadership and departmental culture, which have been demonstrated in numerous other studies to have a substantial influence on attrition and turnover, and which were also strongly represented in the present study.^{5,11,16} It seems self-evident that motivation for a career in the health professions, with its high stress and levels of responsibility, includes factors other than financial compensation. Hence it seems inappropriate to equate pay alone with job satisfaction. Indeed, in one study on the recruitment of faculty with clinical responsibilities,

salary was ranked second in importance, with the perceived climate and collegiality of the department ranked first. The author concluded that improving the collegial environment might improve veterinary clinical faculty attrition.³⁰

Other studies of medical faculty attrition have similarly found several other factors in addition to salary concerns. For example, Cropsey et al. found that problems with the department chair and departmental leadership were the primary cause for leaving for 22.4% of study respondents, while Laskin reported a similar percentage (25%) for problems with departmental leadership, in addition to institutional “red tape” (40% of respondents). Studies of veterinary faculties have also reported additional factors of concern. In one study, 54% of respondents (113/210) identified a lack of administrative support for clinical medicine as an important reason for leaving,² while another study found that lack of organizational efficiency was a very important factor (13/54 respondents), as well as geographic location (15/54 respondents).⁴

In the present study, many concerns of a similar nature regarding institutional culture and professional rewards were found to be associated with attrition, including frustration with hospital bureaucracy, an inability to comment on institutional leadership, a lack of flexibility in scheduling, and a negative departmental culture. Several items were significantly correlated with the statement that “departmental culture was poor or negative,” and examining correlated factors helps to understand why the respondents held that view. Significantly correlated factors included a lack of consistent and credible performance evaluation, a lack of recognition for clinical service and teaching in advancement, little (perceived) opportunity to participate in institutional governance, an inability to comment on performance of institutional leaders, and a poor sense of academic community. These factors seem to represent a general view among faculty members that institutional leaders do not value their work and opinions.

These findings are similar to those of Johnsrud and Rosser, who found that significant factors for attrition across multiple disciplines of medicine and faculty demographics included salary and a variety of personal factors, among them relationships with colleagues, family factors, work–life balance, and relationship with the department chair.¹⁶ In another study, lacking a sense of community within the institution was another major determinant of the decision to leave.¹⁰ The investigators concluded that salary alone was rarely enough to push someone to leave their institution, but that it was a factor if the person was “discontented” for any of the other reasons.³¹ This position is well articulated in the study of Adams et al., in which one individual reported that “money was never an object until he became dissatisfied with academics, and then it was a huge reason for his decision.”^{2(p.413)} It seems likely that this assessment also applies to clinical veterinary academic medicine.

The concept of professional priorities and rewards reflects an effort to determine what is important to faculty members in terms of their work and the rewards (both concrete and intangible) that they receive from performing that work.¹⁶ Previous work has reported that the greatest

sense of satisfaction among faculty in terms of work comes from their degree of autonomy¹⁹ and the intellectual challenge of their work.³² Faculty members typically enjoy substantial freedom to determine what they do (what to teach, what to study, etc.) and how they do it. In addition, specialists may need to invest substantial time to stay current with developments in their specialties, and 86% of respondents in a national study of faculty across many disciplines reported this to be a major source of distress.³²

Results in the present study of veterinary clinical faculty are not in agreement with some of these previous results. Most faculty indicated adequate satisfaction with the courses they teach and the manner in which they teach. While most faculty reported that the departmental culture did not make it difficult to keep up with developments in their own discipline, 29.7% of all individuals (238/799) did somewhat or strongly agree with this statement. This suggests that while departmental culture is not a major determinant of the decision to leave academic medicine, it is a concern for a substantial number of individuals. As in previous studies, concern about a lack of scheduling flexibility was more frequently reported among those who had left VCAM, as well as their inability to practice in their preferred manner. Similarly, there was a slight tendency among those who had left VCAM to agree with the statement that the quality of clinical work was below expectations; however, there was no statistical correlation between this statement and the view among some respondents that they were not able to practice in their preferred manner. It is difficult to reconcile these two views based on the information available from the study.

Many studies of human and veterinary medical faculty have reported that challenges balancing work and family are significant for many people and contribute to faculty attrition. In the present study, a high percentage of all respondents indicated challenges balancing work and family, although a higher percentage of agreement (75%) was found among people who had remained in VCAM than among those who had left (61.3%). This is contrary to what might be expected, but it does speak to the stress and difficulties faced by clinical veterinary faculty.

As teaching is perhaps the predominant activity for many faculty, it was deemed appropriate to consider questions regarding teaching independently. Responses indicated a clear enthusiasm for teaching, with less than 6% of total respondents indicating no or little interest in teaching. Further, respondents seemed generally satisfied with teaching load, and with their opportunities to teach desired subjects and to teach in their preferred manner. In addition, textual comments indicated that the pleasure and rewards derived from teaching played a large role in overcoming some of the less optimal aspects of the position.

There are several limitations to this study that warrant comment, and these should be kept in mind when evaluating and interpreting the results. The first of these is the low response rate for the survey. It is not possible to know how many non-respondents in the survey pool may now have an academic appointment or may have had one at some time in the past. It is therefore unclear how many people with an academic role were actually

sampled. Given the title of the survey ("Survey for Leaving Academic Veterinary Medicine"), individuals who had not been involved in academic medicine may not have felt that they should respond, or perhaps had no interest, even though the solicitation specifically encouraged all individuals to complete the survey. This low response rate leads directly to the second concern, which is selection bias. Given that most veterinary specialists are not in academic medicine, and that the survey had responses from more people in academic medicine than not, there may have been selection bias for people favoring an academic career. This may have influenced the study results and presented a more favorable assessment of academic life than many actually experience or perceive.

An important consideration that remains undetermined is the importance of faculty attrition in VCAM, and the associated implications for faculty turnover or attrition. It is reasonable to consider some degree of turnover in a department or college to be advisable, as it allows some flexibility in program development and can allow a department to bring in people with new perspectives and ideas. These factors keep the department energized and reduce the risk of academic stagnation. However, what is the "right" amount of turnover and is it the same for every institution? These are likely to be challenging questions to answer.

Previous authors studying the issue of faculty retention have emphasized the importance of examining issues of faculty stress and attrition on an individual institutional basis. It may be difficult and inadvisable to attempt to capture the nuances leading to faculty discontent at a particular institution by extrapolating results from a large national study. The relatively polarized results observed for many factors in the current study suggest the challenges in making such extrapolations.

For many factors, the responses tended to be negative with regard to academic experience for those who had left academic medicine, and positive for those who had remained. This response pattern is consistent with the conclusions of Johnsrud and Rosser, in that the majority of variance in response for this type of survey is individual; individuals perceive the same situation differently, which is completely expected.¹⁶ While this adds to the complexity of studying this subject, it also suggests the potential for good leadership and management to influence people's perceptions.

A final important consideration in the interpretation of the present results is that factors related to faculty turnover are different from factors driving individuals to leave academia altogether.^{21,33,34} These differences might be of particular importance in VCAM, in which the opportunities to move between institutions are limited due to the fairly small number of veterinary colleges and open positions.

CONCLUSIONS

The bulk of evidence supports the position that compensation is an important element of faculty attrition but is not the sole source of discontent leading faculty to leave their positions. Issues of culture and workplace environment and issues of faculty development seem to be important as well. While compensation is a factor of great

importance, it only appears to assume pre-eminence when other factors are also deemed inadequate. Hence, the importance of salary is contextual, and improving faculty retention will require attention to all identified factors, not just compensation. Many of the factors identified in this study might be amenable to correction through college or departmental leadership. Understanding the forces that lead individuals to enter or leave academic medicine may help uncover opportunities to improve faculty morale and retention.

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