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ORIGINAL RESEARCH

Exploring veterinary professionals' perceptions of pet weight-related communication in companion animal veterinary practice

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Abstract

Background: Pet obesity is commonly encountered by veterinary professionals, yet little is known about their perception of communicating about pet weight. The objective of this study was to explore veterinary professionals' perception of discussing pet obesity with clients.

Methods: An online survey targeting veterinary professionals was distributed via social media and veterinary organisation newsletters. Topics included respondents' perceptions of weight-related communication, factors related to approaching weight conversations and implicit weight bias.

Results: A total of 102 respondents to the survey were included in the final analysis. Avoidance of discussing pet obesity with certain clients was common (53.9%; 55/102). The most endorsed term for describing pets with excess weight to clients was 'overweight' (97.1%; 99/102). The pet's body condition score was rated the most important factor to consider when deciding how to approach a weight discussion with clients. Although only 29 participants completed the implicit association test (IAT), most of these participants were identified as having an unconscious preference for thin people. The small sample size limited the vignette analysis to descriptive only, and the IAT results should be interpreted cautiously.

Conclusion: This exploratory, cross-sectional study provides early insight into veterinary professionals' perceptions of pet obesity-related communication and suggests the presence of weight bias in the profession that warrants further investigation.

INTRODUCTION

It is estimated that more than half of pets are overweight or obese.[1,2] Pet obesity continues to rise[1,3] and is associated with a variety of health concerns[3] and reduced quality of life.[4] Addressing pet obesity in the veterinary clinic, with the goal of weight reduction for the patient, is important to protect animal wellbeing. Despite recognition that the prevention and treatment of pet obesity are a professional responsibility and an opportunity to protect animal welfare, concern has been raised that companion animal practitioners are not consistently identifying and discussing pet obesity with clients.[5] A low level of obesity-related communication, including weight-management recommendations provided to clients, has also been observed[6]; similarly, limited obesity-related discussion was seen in another observational study specific to feline appointments.[7] It has been suggested that avoidance of the topic may be due in part to veterinary professionals' fear of offending the client,[8,9] which underscores the need to understand veterinary professionals' and clients' perspectives on pet weight-related communication in order to optimise these discussions.

Prior research indicates that a variety of important veterinary care outcomes, such as client adherence to veterinary recommendations and veterinarian satisfaction, are impacted by how veterinary professionals communicate with clients.[10–14] Perceptual skills have received limited attention in the context of weight-related communication and relate to the thoughts and feelings of the practitioner in the interaction, their internal decision making and problem solving, and awareness of their own biases.[15] Weight bias has been of particular interest in human medicine, as it has implications for how physicians view patients with obesity[16–18] and how they interact with these patients.[19,20] Patients who perceive a weight bias on the part of their health care provider may also be

less inclined to seek necessary medical care.[21–23] An early investigation into potential weight bias among veterinarians suggests that a bias may be present,[24] although further research is required to understand the impact of this potential bias on veterinary–client communication as well as treatment recommendations and outcomes for pets with obesity.

The objective of this study was to explore veterinary professionals' perceptions of pet weight-related communication with clients and factors veterinary professionals consider important when determining how to approach pet weight-related interactions with clients presenting with an overweight or obese animal.

METHODS

A cross-sectional, questionnaire-based study of companion animal veterinary professionals was conducted online from 11 May to 10 August 2021, inclusive. The study protocol was approved by the University of Guelph Research Ethics Board (REB #21-01-014).

Questionnaire design

The questionnaire was organised into four sections. The first section consisted of a series of closed-ended questions regarding participant demographics (14 questions). Section 2 was the Harvard weight implicit association test (IAT),[25] a timed activity designed to measure the strength of association between concepts. IATs were developed to assess biases that an individual may not be aware of having and have been extensively used to assess anti-obesity bias in healthcare providers.[18,26–29] As the IAT was not mobile- or touch-device compatible, an option was provided to bypass the IAT and proceed directly to the next section for participants accessing the survey via a noncompatible device. The third section was centred on one of 16 variations of a vignette based around four attributes, each measured as a dichotomous variable: species of pet (dog or cat); age of pet (young or old); body condition score (BCS) of pet (5/9 or 8/9); and client weight status (healthy or overweight). The 16 vignettes produced all combinations of the four variables and were framed in the second person perspective (e.g., 'A client brings their 2-year-old cat to your veterinary clinic for an annual wellness appointment. The client is the primary caregiver of the cat, and they have not noted any recent issues. On physical examination, you determine the body condition score of the cat to be 5 out of 9. You notice that the client is a healthy weight. The appointment is progressing as a typical wellness appointment'). Vignettes were randomised, and each participant was shown only one vignette. Participants were asked to assume the role of the veterinary professional in the scenario and to describe their approach to a potential conversation about weight management for the pet in the scenario by indicating whether they would include a conversation about the pet's weight with the client in this appointment (yes/no), which of three topics (calorie intake, measuring food provided to the pet, physical activity) they would include in the discussion (yes/no), and how often they would recommend a weight recheck. Participants were also asked to rate their perceived likelihood of the client adhering to any provided weight-management recommendations. Participants were then asked to rank on a scale from 0 to 10 (0 = not at all important to 10 = extremely important) the importance of the four variables (species, pet age, pet BCS, client weight status) in influencing their approach to the scenario. In addition, two open-ended questions were asked in section 3: 'What other thoughts do you have about weight management for this pet?' and 'Please describe the other factors that may influence your decision to include a weight management conversation in an appointment'. In total, section 3 consisted of 12 questions pertaining to the vignettes. Section 4 consisted of a series of multiple-choice, ordinal-scale, closed-ended, open-ended and Likert-scale questions about participants' experiences and perceptions of discussing the topic of pet weight with veterinary clients, totaling 14 questions. Four open-ended questions were asked in section 4, including 'Please indicate any other language that you would use to discuss an overweight pet with a client', 'Please indicate any other language that you do not feel is appropriate to use to discuss an overweight pet with a client', 'Please feel free to share any additional thoughts you might have on the use of humour in pet weight conversations', and 'What are some barriers that you or other members of the veterinary team have experienced when discussing weight with a client when the pet is overweight?' Throughout the questionnaire, only relevant questions were displayed based on the participant's previously selected responses.

Two companion animal veterinarians known to the research team were enlisted to pretest and provide feedback on the questionnaire. Minimal changes based on the pretest were incorporated into the final questionnaire.

Participant recruitment

Veterinary professionals (e.g., veterinarians, veterinary technicians or nurses, veterinary assistants) working in companion animal practice were pursued to participate in the questionnaire via several methods. Snowball sampling through social media platforms (Facebook and LinkedIn) was used by posting a link to the questionnaire from various personal social media pages belonging to the research team and colleagues of the researchers. Veterinary industry organisations and various veterinary associations were contacted by the research team to request assistance with distributing the questionnaire link to their members via social media, newsletters or their organisation website. All organisations and associations were based

in Canada or the United States. Finally, the principal author (Katja A. Sutherland) promoted the study as a guest on a United States-based podcast with a target audience of veterinary professionals.

Participants were provided with a letter of consent at the start of the survey and provided implied consent by proceeding with the online questionnaire. Participants must have met the following inclusion criteria: (1) at least 18 years of age and (2) working in companion animal veterinary medicine. An incentive in the form of a CA$100 online gift card (www.amazon.ca; odds of one in 100) was offered. Questionnaire data were collected using the standard online survey software Qualtrics (Provo, UT, USA).

Questionnaire analysis

The Checklist for Reporting Results of Internet E-Surveys (CHERRIES)[30] reporting guidelines were consulted to determine completion percentages. With the exception of bypassing the IAT, participants completing the rest of the questionnaire with five or fewer missing responses were included in the analysis. If the IAT was bypassed, this was not considered a missing response, and participant responses for the remainder of the questionnaire were retained for analysis.

Descriptive statistics were calculated for questionnaire data, including frequencies for categorical variables and means, medians, standard deviations and ranges for continuous variables. The Wilcoxon signed rank test was used to compare participants' scores for the importance of the four factors manipulated in the vignettes (i.e., species, pet age, pet BCS, client weight status). All statistical analyses were performed with SAS software (OnDemand for Academics, SAS Institute, 2021, SAS Campus Drive, NC, USA). Significance was set at $p < 0.05$.

Content analysis was performed on participants' open-ended responses by creating codes to represent the content of these responses. Codes were subsequently collated and reported as frequencies.

RESULTS

A total of 179 veterinary professionals proceeded beyond the letter of consent to participate in the questionnaire, of which 102 (57%) met all inclusion criteria and were included in the final analysis. Questionnaires were most often excluded due to a high number (greater than 5, excluding the IAT) of missing responses. Participants were predominantly women (94.1%; 96/102) and Canadian residents (94.1%; 95/101) and had a mean of 10.8 years since graduation from their veterinary training programme (SD 8.6; median 8; range 0–43). Registered veterinary technician was the role that most participants identified as their current position (45.1%; 46/102). Participant demographics are presented in Table 1.

TABLE 1 Demographics of the participating veterinary professionals ($n = 102$)

Veterinary professional characteristics	*n* (%)
Gender ($n = 102$)	
Woman	96 (94.1)
Man	5 (4.9)
Nonbinary	1 (1.0)
Age ($n = 102$)	Mean 35.5 (9.3), median 34, range 20–67
Country ($n = 101$)	
Canada	95 (94.1)
United States	6 (5.9)
Years since graduation ($n = 100$)	Mean 10.8 (8.6), median 8, range 0–43
Role at current practice ($n = 102$)	
Practice owner/partner	10 (9.8)
Associate veterinarian	31 (30.4)
Practice manager	6 (5.9)
Registered veterinary technician	46 (45.1)
Veterinary technician	2 (1.9)
Veterinary assistant	1 (1.0)
Client service representative	0 (0.0)
Other	6 (5.9)
Full-time employees at practice ($n = 97$)	
<5	27 (27.8)
5–10	33 (34.0)
11–50	28 (28.9)
>50	9 (9.3)
Hours worked per week ($n = 102$)	
Less than 20 hours	7 (6.9)
20–30 hours	7 (6.9)
31–40 hours	49 (48.0)
41–50 hours	34 (33.3)
More than 50 hours	5 (4.9)
Strictly working in companion animal medicine ($n = 102$)	
Yes	88 (86.2)
No	14 (13.7)
Practice location ($n = 102$)	
Rural	20 (19.6)
Suburban	38 (37.3)
Urban	44 (43.1)
How frequently engaging in pet weight-related conversations with clients ($n = 102$)	
Daily	42 (41.2)
Multiple times a week, not every day	40 (39.2)
Once a week	11 (10.8)
Less than once a week	8 (7.8)
Never	1 (1.0)

Note: Missing values account for discrepancies in totals.

Harvard weight implicit association test

The IAT was completed in full by only 29 participants (28.4%; 29/102). Of these participants, no automatic preference for people at a healthy weight ('thin') over people with overweight ('fat') was measured for five participants (17.2%). An automatic preference for thin people over fat people was measured for 24 (82.8%) participants; this preference was measured as slight for two participants (6.9%), moderate for eight participants (27.6%) and strong for 14 participants (48.3%).

Vignettes

Due to the sample size achieved for this study, each vignette had a limited number of responses (range 1–11), allowing for vignette results to be presented only descriptively.

A total of 80.4% of participants (82/102) indicated they would initiate a discussion about the pet's weight with the client, regardless of the vignette presented (i.e., the combination of four manipulated variables). Of the 45 participants who were shown a vignette with an overweight pet, all indicated that they would discuss the pet's weight with the client, all indicated that they would discuss measuring the food provided, and 97.8% (44/45) and 95.5% (43/45) indicated that they would discuss calorie intake and physical activity, respectively. Weight rechecks were most often recommended monthly (66.7%; 30/45) for overweight pets, followed by biweekly (13.3%; 6/45), every several months (8.9%; 4/45), at the next annual appointment (6.7%; 3/45) or another frequency (4.4%; 2/45). From the responses of 22 participants who responded to the open-ended question to provide additional thoughts on weight management for the pet, seven (31.8%) mentioned a diet change, five (22.7%) would recommend bloodwork to investigate potential underlying issues related to excess weight (e.g., thyroid function), and four (18.2%) indicated they would discuss the risks of pet obesity with the client.

Of the 57 participants shown a vignette with a pet at an ideal weight, 64.9% (37/57) indicated that they would discuss the pet's weight with the client. Of those, 29.7% (11/37) would discuss calorie intake, 83.8% (31/37) would discuss measuring the food provided and 86.5% (32/37) would discuss physical activity. Weight rechecks were most often recommended at another frequency (56.8%; 21/37) rather than at the next annual appointment (2.7%; 1/37), every several months (16.2%; 6/37), monthly (18.9%; 7/37) or biweekly (5.4%; 2/37). The recheck frequencies recommended in the open-text responses included every 6 weeks, varying depending on the pet's rate of weight loss and at the client's discretion.

When participants who indicated they would initiate a weight discussion, regardless of the pet's BCS, were asked how likely they thought the client was to adhere to any weight-management recommendations for the pet, 2.4% (2/82) responded extremely unlikely, 9.7% (8/82) responded moderately unlikely, 11.0% (9/82) responded slightly unlikely, 12.2% (10/82) responded neither likely nor unlikely, 30.5% (25/82) responded slightly likely, 29.3% (24/82) responded moderately likely and 4.9% (4/82) responded extremely likely. Of 44 participants who provided additional thoughts on weight management for the pet in response to the open-ended question, 17 (38.6%) indicated they would simply ask the client to maintain the pet's current weight, six (13.6%) specifically mentioned celebrating with or commending the client for a job well done regarding the pet's weight, and six (13.6%) indicated that if the pet is at an ideal weight, no further discussion is necessary.

TABLE 2 Participating veterinary professionals' ($n = 102$) importance ratings for four factors related to determining their approach to a conversation about pet weight with a client

	Importance score				
Factor	Mean (SD)	Median	Quartile 1	Quartile 3	Range
Species ($n = 102$)	2.62 (3.17)	1	0	5	0–10
Pet age ($n = 102$)	4.59 (3.31)	5	2	7	0–10
Body condition score ($n = 102$)	8.32 (2.45)	10	8	10	0–10
Client weight status ($n = 102$)	1.94 (2.76)	0	0	3	0–10

Note: Scores ranged from 0 (not at all important) to 10 (extremely important).
Abbreviation: SD, standard deviation.

Importance of factors related to weight conversation

Importance ratings for the four factors (i.e., species, pet age, pet BCS, client weight status) assessed in terms of their impact on participants' approach to the weight conversation are presented in Table 2. Except for the pairwise comparison between species and client weight, a significant difference in importance scores was found for all other pairwise comparisons (species–pet age; species–BCS; species–client weight; pet age–BCS; pet age–client weight; BCS–client weight) (Table 3). The pet's BCS was rated as the most important factor influencing participants' approach to a potential weight conversation (Figure 1).

Fifty-six participants elaborated on factors that influenced their approach to a weight conversation in the open-text responses. Of these, 44.6% (25/56) indicated that client attitude or history influenced their willingness to discuss pet weight for an overweight pet, where negative attitudes or past experiences may lead to dropping or avoiding the topic. The presence or risk of other health issues (e.g., arthritis) was indicated in 33.9% (19/56) of responses; it was unclear in these responses whether the presence of these issues increased or decreased the impetus to discuss weight. Time constraints were indicated as an influential factor in 25% (14/56) of responses, where being behind

TABLE 3 Summary of the results of the Wilcoxon signed rank test for all pairwise comparisons of four dichotomous factors related to participating veterinary professionals' ($n = 102$) determination of their approach to a conversation about pet weight with a client

Factors	Mean difference (SD)	Median[a]	Proportion of differences equal to 0, *n* (%)	Minimum difference	Maximum difference	*p*-Value
Species–pet age	–1.98 (3.08)	–3.5	48 (47.1)	–10	8	<0.0001
Species–BCS	–5.70 (3.91)	–2.0	14 (13.7)	–10	3	<0.0001
Species–client weight	0.68 (3.38)	2.0	49 (48.0)	–7	10	0.0601
Pet age–BCS	–3.72 (3.85)	–4.0	22 (21.6)	–10	3	<0.0001
Pet age–client weight	2.66 (3.64)	4.0	30 (29.4)	–4	10	<0.0001
BCS–client weight	6.38 (3.61)	8.0	9 (8.8)	–3	10	<0.0001

Note: Importance scores for each factor ranged from 0 (not at all important) to 10 (extremely important).
Abbreviation: BCS, body condition score; SD, standard deviation.
[a]Median is conditional on difference not equal to zero.

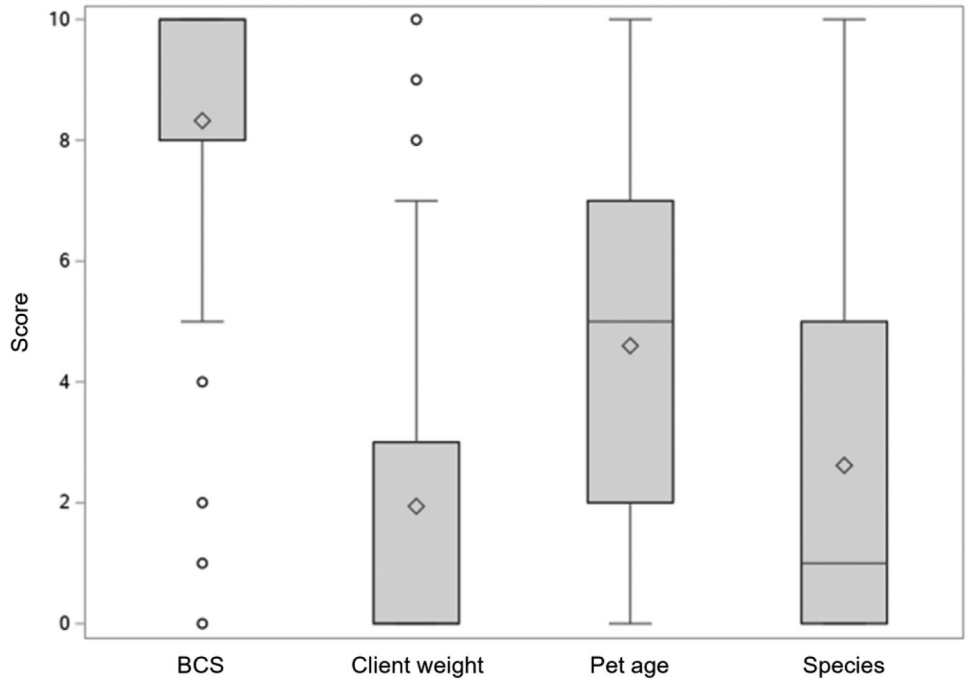

FIGURE 1 Box plot comparing the mean importance scores for each of four dichotomous factors related to participating veterinary professionals' ($n = 102$) determination of their approach to a pet weight-related conversation with a client; BCS, body condition score.

schedule or short on time may mean that a weight conversation does not occur.

Perceptions of pet weight-related communication

The majority of participants reported that they agreed that the topic of pet weight was important to address in every appointment (84.4%; 86/102). Many participants (60.8%; 62/102) also agreed that they would be more likely to discuss an overweight pet's weight during a wellness appointment than a problem appointment. Participants largely disagreed that they sometimes avoided discussing pet obesity out of concern about harming their relationship with the client (73.5%; 75/102), yet over half (53.9; 55/102) indicated they would avoid discussing pet obesity with certain clients. About one-third of participants indicated that they were more likely to discuss obesity in younger pets (31.4%; 32/102). Participants' perceptions of weight-related conversations are presented in Table 4. Most participants (95.1%; 97/102) agreed to some extent that pet obesity is attributable to owner-related factors such as lifestyle. Perceptions of the causes of pet obesity are shown in Table 5.

Regarding the use of humour to discuss pet weight with a client, 21.6% (22/102) of participants reported frequently or always using humour, 54.9% (56/102) reported that they sometimes use humour and 23.5% (24/102) indicated rarely or never using humour. It was generally reported that participants believed their own use of humour makes the topic of pet weight easier to broach (70.6%; 72/102), whereas participants reported clients' use of humour comes across as an avoidance tactic (72.5%; 74/102). Of the 27 open-text responses

TABLE 4 Participating veterinary professionals' ($n = 102$) perceptions of pet weight- and obesity-related communication with veterinary clients

	Strongly disagree, *n* (%)	**Disagree, *n* (%)**	**Somewhat disagree, *n* (%)**	**Neither agree nor disagree, *n* (%)**	**Somewhat agree, *n* (%)**	**Agree, *n* (%)**	**Strongly agree, *n* (%)**
I believe pet weight is an important topic to discuss with clients at every appointment ($n = 102$)	6 (5.9)	2 (1.9)	5 (4.9)	3 (2.9)	16 (15.7)	37 (36.3)	33 (32.4)
I am more likely to have a weight conversation when a pet is underweight than when a pet is overweight ($n = 102$)	16 (15.7)	33 (32.4)	14 (13.7)	21 (20.6)	9 (8.8)	6 (5.9)	3 (2.9)
I am more likely to discuss pet weight at a wellness visit than a problem visit when the pet is overweight ($n = 102$)	2 (1.96)	14 (13.7)	9 (8.8)	15 (14.7)	26 (25.5)	30 (29.4)	6 (5.9)
I feel uncomfortable when discussing pet weight with a client who owns an overweight pet ($n = 102$)	28 (27.5)	37 (36.3)	10 (9.8)	4 (3.9)	19 (18.6)	4 (3.9)	0 (0.0)
I sometimes opt not to discuss pet weight with certain clients ($n = 102$)	9 (8.8)	17 (16.7)	13 (12.7)	8 (7.8)	28 (27.5)	23 (22.6)	4 (3.9)
Discussing pet weight for an overweight pet is a difficult conversation ($n = 102$)	16 (15.7)	14 (13.7)	14 (13.7)	12 (11.8)	33 (32.4)	11 (10.8)	2 (1.96)
I am more likely to avoid discussing weight for an overweight pet if the client is also overweight ($n = 102$)	29 (28.4)	29 (28.4)	15 (14.7)	8 (7.8)	11 (10.8)	7 (6.9)	3 (2.9)
I learned good obesity management practices in my veterinary training ($n = 102$)	3 (2.9)	18 (17.7)	20 (19.6)	11 (10.8)	25 (24.5)	19 (18.6)	6 (5.9)
Most owners of obese pets are not ready to do anything about their pet's weight ($n = 102$)	2 (1.9)	16 (15.7)	20 (19.6)	16 (15.7)	30 (29.4)	12 (11.8)	6 (5.9)
There is no evidence that veterinary professional-delivered weight-management counselling is effective ($n = 102$)	19 (18.6)	39 (38.2)	14 (13.7)	18 (17.7)	7 (6.9)	4 (3.9)	1 (1.0)
There are no effective treatments for pet obesity ($n = 102$)	67 (65.7)	22 (21.6)	8 (7.8)	1 (1.0)	0 (0.0)	1 (1.0)	3 (2.9)
Pet obesity is difficult to treat	1 (1.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (1.9)	18 (17.7)	81 (79.4)
Pet obesity is an important health problem ($n = 102$)	6 (5.9)	5 (4.9)	6 (5.9)	8 (7.8)	37 (36.3)	31 (30.4)	9 (8.8)
I sometimes do not address pet obesity for fear of ruining my relationship with the client ($n = 102$)	28 (27.5)	31 (30.4)	16 (15.7)	9 (8.8)	14 (13.7)	3 (2.9)	1 (1.0)
I would be more likely to address pet obesity with clients if appointment times were longer ($n = 102$)	5 (4.9)	15 (14.7)	3 (2.9)	22 (21.6)	19 (18.6)	24 (23.5)	14 (13.7)
Obesity is a disease ($n = 102$)	2 (1.9)	2 (1.9)	3 (2.9)	9 (8.8)	15 (14.7)	34 (33.3)	37 (36.3)
I am more likely to address obesity if the pet is younger ($n = 102$)	16 (15.7)	26 (25.5)	11 (10.8)	17 (16.7)	20 (19.6)	8 (7.8)	4 (3.9)

(Continues)

TABLE 4 (Continued)

	Strongly disagree, *n* (%)	Disagree, *n* (%)	Somewhat disagree, *n* (%)	Neither agree nor disagree, *n* (%)	Somewhat agree, *n* (%)	Agree, *n* (%)	Strongly agree, *n* (%)
Most clients attribute their pet's obesity to an external cause other than themselves ($n = 102$)	1 (1.0)	10 (9.8)	8 (7.8)	10 (9.8)	27 (26.5)	36 (35.3)	10 (9.8)
The pet having multiple comorbidities (e.g., diabetes, arthritis) makes it less likely that I will address obesity ($n = 102$)	33 (32.4)	27 (26.5)	19 (18.6)	5 (4.9)	11 (10.8)	3 (2.9)	4 (3.9)

Note: Some items adapted from Glauser TA, Roepke N, Stevenin B, Dubois AM, Ahn SM. Physician knowledge about and perceptions of obesity management. Obes Res Clin Pract. 2015;9(6):573–83.

TABLE 5 Participating veterinary professionals' ($n = 102$) perceptions of the causes of pet obesity

	Strongly disagree, *n* (%)	Disagree, *n* (%)	Somewhat disagree, *n* (%)	Neither agree nor disagree, *n* (%)	Somewhat agree, *n* (%)	Agree, *n* (%)	Strongly agree, *n* (%)
Biology (e.g., breed, age, genetics) ($n = 102$)	1 (1.0)	6 (5.9)	2 (1.9)	2 (1.9)	40 (39.2)	44 (43.4)	7 (6.9)
Pet behaviour (e.g., begging, physical activity) ($n = 102$)	1 (1.0)	1 (1.0)	0 (0.0)	2 (1.9)	14 (13.7)	45 (44.1)	39 (38.2)
Owner behaviour (e.g., owner's personal health habits, lifestyle) ($n = 102$)	0 (0.0)	2 (1.9)	0 (0.0)	3 (2.9)	17 (16.7)	28 (27.5)	52 (51.0)
Owner responsibility (e.g., owner commitment to the pet, owner motivation) ($n = 101$)	0 (0.0)	1 (1.0)	3 (3.0)	2 (2.0)	10 (9.9)	37 (36.6)	48 (47.5)
Owner–pet relationship ($n = 102$)	1 (1.0)	3 (2.9)	3 (2.9)	7 (6.9)	17 (16.7)	40 (39.2)	31 (30.4)
Environment (e.g., access to outdoors, other pets in the home, children in the home) ($n = 102$)	0 (0.0)	0 (0.0)	4 (3.9)	6 (5.9)	21 (20.6)	50 (49.0)	21 (20.6)
Owner weight status ($n = 101$)	6 (5.9)	13 (12.9)	17 (16.8)	24 (23.8)	25 (24.7)	14 (13.9)	2 (2.0)
Owner financial situation ($n = 102$)	5 (4.9)	12 (11.8)	13 (12.8)	17 (16.7)	29 (28.4)	16 (15.7)	10 (9.8)

Note: Missing values account for the discrepancies in totals.

about participants' additional thoughts on the use of humour in a pet weight conversation, 33% (9/27) indicated that humour can be useful to avoid upsetting the client, while 33% (9/27) also indicated that the veterinary professional's use of humour has the potential to undermine the severity of the issue if the pet is overweight, and 18.5% (5/27) indicated that the use of humour is dependent on the relationship with the client. Further participant perspectives on humour are shown in Table 6.

The most endorsed terms to refer to a pet with excess weight when with a client were 'overweight' (97.1%; 99/102) and 'obese' (77.0%; 77/100). When asked what additional language might be appropriate to describe a pet with excess weight to clients, a range of terms was suggested in the open-text responses, including 'tubby' and 'carrying extra weight'. Two participants out of 36 indicated 'sausage-like' as an appropriate descriptor, and the use of trends was mentioned four times. Endorsements of various terms by participants are presented in Table 7 alongside participants' indicated use of these terms with other veterinary team members when clients are not present.

Sixty-nine participants (67.6%) responded to the open-response question when asked about any barriers that they had experienced when discussing pet obesity with clients. Low client buy-in and lack of adherence to treatment plans were mentioned as barriers in 58% (40/69) of responses, followed by the prohibitive cost of therapeutic weight-management diets (20.3%; 14/69), time constraints (13%; 9/69) and client family dynamics (11.6%; 8/69).

DISCUSSION

This study provides preliminary insights into veterinary professionals' perceptions of engaging veterinary

TABLE 6 Participating veterinary professionals' ($n = 102$) perspectives on the use of humour during a veterinary–client interaction about pet weight

	Strongly disagree, *n* (%)	Disagree, *n* (%)	Somewhat disagree, *n* (%)	Neither agree nor disagree, *n* (%)	Somewhat agree, *n* (%)	Agree, *n* (%)	Strongly agree, *n* (%)
The use of humour in a pet weight conversation is appropriate ($n = 102$)	2 (1.9)	8 (7.8)	17 (16.7)	26 (25.5)	30 (29.4)	15 (14.7)	4 (3.9)
Humour makes the topic of pet weight easier to broach ($n = 102$)	1 (1.0)	9 (8.8)	6 (5.9)	14 (13.7)	39 (38.2)	27 (26.5)	6 (5.9)
Clients appreciate my use of humour in a pet weight conversation ($n = 102$)	1 (1.0)	5 (4.9)	2 (1.9)	35 (34.3)	29 (28.4)	27 (26.5)	3 (2.94)
Humour helps ensure the client does not feel blamed or judged for their pet's weight ($n = 102$)	2 (1.96)	7 (8.9)	5 (4.9)	15 (14.7)	33 (32.4)	32 (31.4)	8 (7.8)
When clients joke about pet weight, it appears to be a way to deflect or avoid the conversation ($n = 102$)	1 (1.0)	7 (6.9)	5 (4.9)	15 (14.7)	38 (37.3)	27 (26.5)	9 (8.8)

TABLE 7 Language endorsed as appropriate for use by veterinary professionals with clients when discussing pet obesity and language participating veterinary professionals ($n = 102$) have used to discuss pet weight when clients are not present

Term to describe pet with excess bodyweight		Appropriate for use with client, *n* (%)	Term to describe pet with excess bodyweight		Used when client is not present, *n* (%)
Overweight ($n = 102$)	Yes	99 (97.1)	Overweight ($n = 101$)	Yes	100 (99.0)
	No	3 (2.9)		No	1 (1.0)
Obese ($n = 100$)	Yes	77 (77.0)	Obese ($n = 101$)	Yes	98 (97.0)
	No	23 (23.0)		No	3 (3.0)
Fat ($n = 100$)	Yes	12 (12.0)	Fat ($n = 101$)	Yes	100 (99.0)
	No	88 (88.0)		No	1 (1.0)
Overconditioned ($n = 99$)	Yes	44 (44.4)	Overconditioned ($n = 97$)	Yes	47 (48.5)
	No	55 (55.6)		No	50 (51.5)
Chubby ($n = 101$)	Yes	46 (45.5)	Chubby ($n = 100$)	Yes	89 (89.0)
	No	55 (54.5)		No	11 (11.0)
Plump ($n = 99$)	Yes	29 (29.3)	Plump ($n = 100$)	Yes	66 (66.0)
	No	70 (70.7)		No	34 (34.0)
Heavy ($n = 100$)	Yes	57 (57.0)	Heavy ($n = 99$)	Yes	88 (88.9)
	No	43 (43.0)		No	11 (11.1)
Chunky ($n = 101$)	Yes	36 (35.6)	Chunky ($n = 102$)	Yes	91 (89.2)
	No	65 (64.4)		No	11 (10.8)
Morbidly obese ($n = 100$)	Yes	37 (37.0)	Morbidly obese ($n = 101$)	Yes	88 (87.1)
	No	63 (63.0)		No	13 (12.9)
Curvy ($n = 100$)	Yes	17 (17.0)	Curvy ($n = 98$)	Yes	49 (50.0)
	No	83 (83.0)		No	49 (50.0)
Fluffy ($n = 100$)	Yes	18 (18.0)	Fluffy ($n = 98$)	Yes	53 (54.1)
	No	82 (82.0)		No	45 (45.9)

clients in conversation about their pet's weight, particularly in relation to overweight and obese pets. Participants in this study, about half of whom were veterinary support staff, recognised pet weight as an important health issue in veterinary medicine and an important topic to be discussed with clients. Participants also indicated that they may be inclined to avoid the topic of pet weight with certain clients, depending on their relationship or history with the client.

Just under half of the respondents in the present study agreed that most pet owners with obese pets were not ready to address their pet's weight,

which aligns with a previously reported skepticism among veterinarians in relation to clients' adherence to weight-management recommendations from the veterinary team.[31,32] This underscores the need for understanding the client's perspective during pet weight-related conversations, as the present study found veterinary professionals may avoid addressing the status of an overweight or obese pet of a client perceived as 'difficult' or 'resistant', which is likely to result in the animal not receiving care that is in the best interest of its health and wellbeing. Client resistance can be considered a product of the interaction between a client and practitioner rather than a characteristic of the client themselves[33] and can be related to a misalignment of the client's readiness to address a problem and the practitioner's assumption of the client's readiness.[34] Further investigation into veterinary professionals' understanding of clients' readiness for change in relation to pet weight and how to effectively bridge the gap between a client's readiness to address pet obesity and veterinary professionals' communication practices may help mitigate adversarial interactions or other communication breakdowns that arise from this misalignment in perception.

A third of the participants in the present study indicated that they are more inclined to discuss pet obesity with clients when the pet is younger, although they appeared to recognise the need to discuss obesity when the pet presents with other weight-related issues. Reduced odds of an obesity conversation for geriatric pets relative to younger animals were also seen in a recent observational study.[6] Placing less emphasis on weight reduction in older pets suggests that there are missed opportunities to improve quality of life in elderly pets, many of whom may also have arthritis or other conditions that could be improved through even moderate weight loss.[4,35] Given veterinary professionals' obligation to improve animal welfare, they are well positioned to help improve the quality of life of older overweight pets through weight loss.

When responding to vignettes with a pet at an ideal BCS, approximately 65% of respondents indicated they would discuss the pet's weight with the client. Understandably, participants of the present study rated the pet's BCS as the most important factor when deciding whether to broach the topic of weight with the client. It may be that discussing weight for pets at a normal or ideal BCS is not a priority for veterinary professionals, especially if they are experiencing time constraints acknowledged by participants in this study as well as identified in previous research,[36,37] yet preventive conversations may provide the opportunity to help pets maintain a healthy weight from early in life. A previous UK survey-based study found that veterinarians addressed dogs' weight more frequently for overweight dogs with a BCS of 8 or 9 out of 9 compared to dogs with a BCS of 6 or 7 out of 9,[31] further supporting that an opportunity exists to intervene earlier and have more preventive conversations about weight before the animal has moved to the obese category. Advocates have promoted the importance of preventing pet obesity,[38] and the use of trends has been identified as an integral component of preventive veterinary care.[39] A recent investigation of the use of trends in companion animal practice found that the majority of trends discussed by veterinarians with clients focused on pet weight, although most were retrospective or retrospective and prospective, indicating a lack of proactive monitoring of pets' weight trends.[40] The findings support further encouraging veterinary professionals to focus on the importance of maintaining a healthy bodyweight when the pet is still at a healthy weight, as well as educating clients on the importance of pets' weight in relation to their overall health from early in life and over their lifetime.

Veterinary professionals participating in this study often indicated, in response to the vignette scenarios, that they would discuss calorie intake, measuring the pet's food and physical activity with clients when engaging in a weight-related conversation. A recent observational study of 917 audio–video recorded appointments found that these topics, particularly calorie requirement calculations and discussions of physical activity, received limited attention during weight-related interactions.[6] Clear recommendations from the veterinary team for pet weight rechecks were also infrequent.[6] Participants in the present study may have responded based on a perception of an ideal interaction, as their responses align with some of the recommendations related to nutritional assessments in practice.[41] However, the discrepancy between these proposed actions and what has been observed to occur in practice suggests that opportunities continue to exist to overcome barriers for veterinary professionals by more consistently applying best practices for nutritional assessments and discussions about pet weight with clients.

An investigation into the preferred terminology to use when referring to excess weight in human medicine has revealed that preferences are not homogenous, although the terms 'obese' and 'fat' are generally considered undesirable compared to more neutral terms such as 'unhealthy weight'.[42] Participants in this study largely endorsed the term 'obese', second to their endorsement of 'overweight', raising the question of whether these terms are more acceptable within the context of veterinary practice or whether they have the potential to be stigmatising in veterinary medicine as they have been identified to be in human medicine.[43,44] Pearl et al.[24] found that over half of veterinarians and veterinary students endorsed the term 'fat' to describe dogs with excess weight. The findings of the present study differ, as only 12% of participants endorsed the use of 'fat' as an appropriate term when speaking to clients, which is also in line with expert recommendations on the language that veterinary teams should avoid.[8] Interestingly, 99% of participants indicated that they have heard the term 'fat' used among the veterinary team when clients are not present. This suggests that veterinary professionals may have an awareness of the language

they use with clients, and as was indicated in several open responses in this study, they may be inclined to tailor their language in the exam room in order to prevent offending the client. Future research into the role of language and the potential for stigmatisation may further inform veterinary professionals' weight-related communication in practice.

Conflicting opinions among participants on the use of humour to discuss pet weight were observed in this study. Most participants reported using humour to discuss pet weight at least some of the time with clients, largely agreeing that it can provide an easier 'in', making the topic easier to broach and ensuring that clients are less likely to feel judged or blamed for their pet's weight. Participants were less accepting of clients' use of humour and generally considered it a way to deflect the conversation. Similar perceptions on humour when discussing pet weight were found in a recent qualitative study exploring veterinarians' perceptions on pet weight-related communication; veterinarians considered humour to be a useful tool for themselves but did not necessarily appreciate clients' use of humour and in some cases considered it a barrier to effective communication.[32] Humour was observed to be frequently used by veterinarians in an observational study of feline appointments, which was believed by the researchers to diffuse tension for the veterinarian and client when delivering information about a cat's weight to an apparently resistant client.[7] Affiliative humour can be used to put others at ease and enhance cohesiveness between parties in an interaction[45]; previous research has also observed more instances of humour to release tension within physician–patient interactions.[46] Although it has not been extensively explored in human healthcare encounters specifically related to obesity, providers have been encouraged to avoid the use of derogatory humour related to weight.[23,47] Guidance around affiliative humour related to patient weight is unclear. Some participants in this study also expressed concerns that veterinary professionals' use of humour undermines pet obesity as a medical issue. It has been suggested that veterinary team members avoid diminishing the importance of pet obesity by minimising the pet's condition, as this may reduce the effectiveness of future counselling about weight management.[8] Further investigation is needed to understand the role and impact of veterinary professionals' use of humour on a client's perceptions of pet obesity and the impact on a client's future motivation to pursue pet weight management.

Unfortunately, the computerised version of the IAT presented a barrier for most study respondents who may have used a touch or mobile device to complete the questionnaire, as the test relies on shared key associations (i.e., requiring the 'i' and 'e' keys of a keyboard), limiting the conclusions that can be drawn from the current study about the role of weight bias in weight conversations in veterinary practice. It is also possible that those respondents who completed the IAT differ from those who skipped it on a touch or mobile device, warranting continued research in this area. The majority of participants who completed the IAT were identified as having an unconscious preference for thin people over fat people to some extent. How this unconscious preference might influence veterinary professionals' decision making and communication has not been well studied, yet the need for awareness of personal biases has been related to perceptual communication skills, and research related to the potential impact of bias on veterinary–client communication would be of value. Further research might consider the administration of the IAT in a way that captures a larger sample of veterinary professionals. Unconscious negative attitudes about obesity may be an under-recognised influence on or barrier to effective communication about pet obesity; understanding the pervasiveness of implicit bias in the veterinary profession is an early step in investigating whether a potential bias may impact treatment decisions and outcomes and, if so, how it can be addressed.

Participants in this study largely attributed pet obesity to owner behaviour, which is in line with a previous study that found veterinarians overwhelmingly attributed dog obesity to human-related factors, including human obesity and a sedentary lifestyle.[48] Although weight bias has been suggested to be a barrier for veterinary professionals initiating conversations about pet obesity,[8] based on findings of the vignettes used in the current study, participants did not generally report discomfort with the topic or a higher likelihood of avoiding the topic based on a client's weight status. Many participants in this study also did not acknowledge a fear of damaging their relationship with a client by discussing pet obesity but indicated that they might avoid the topic with certain individual clients, suggesting that further exploration of both veterinary professional and client perceptions of obesity-related communication would be useful in informing an understanding of the barriers to approaching this topic and best practices for supporting the veterinary–client relationship during these conversations.

The sample size of veterinary professionals recruited for this study limits the generalisability of the results of this questionnaire. In addition, recruitment via social media and veterinary professional organisations limits the potential participants to veterinary professionals who use social media or follow organisation websites or newsletters; respondents were also largely Canadian women with a relatively young mean age and may not represent the broader population of veterinary professionals. The small sample size also resulted in the vignette results being presented descriptively and did not allow for meaningful comparison of the likelihood of engaging in a weight-related conversation based on demographics of interest, such as participants' role in veterinary practice. The discrepancy between responses to this survey and recent observation of the content of pet weight-related interactions in practice also highlights the limitations of self-reporting in surveys for captur-

ing what actions individuals actually engage in during these interactions. It should also be acknowledged that the use of the terms 'pet obesity' and 'overweight' throughout some sections of this questionnaire may have influenced participants' endorsement of these terms to describe pets with excess weight.

This study serves as a preliminary exploration of veterinary professionals' perceptions of pet weight- and obesity-related communication with veterinary clients. The results suggest that weight bias may exist among veterinary professionals in alignment with a previous investigation[24] and indicate that opportunities exist for veterinary professionals to engage in more preventive weight-related conversations with clients. Future research is needed to further understand veterinary professionals' discussions of pet obesity, including how humour impacts client understanding of the importance of pet obesity, the impact of potential weight bias on veterinary professionals' recommendations for managing pet obesity, and perceived barriers to effective communication.

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CONFLICTS OF INTEREST

Dr. Coe regularly receives research funding, consults for, and receives honoraria from various veterinary organisations and commercial companies. Dr. Coe currently holds the VCA Canada Chair in Relationship-Centred Veterinary Medicine at the OVC, University of Guelph. The authors declare no conflicts of interest.

ETHICS STATEMENT

The study protocol was approved by the University of Guelph Research Ethics Board (REB #21-01-014).

AUTHOR CONTRIBUTIONS

Katja Sutherland, Jason B. Coe and Terri O'Sullivan conceived the study, developed the methodology and distributed the survey. Katja Sutherland conducted the data analysis. All authors contributed to the interpretation. Katja Sutherland wrote the first draft of the manuscript, and all authors contributed to the manuscript revisions and approved the submitted version.

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DATA AVAILABILITY STATEMENT

Research data are not shared due to privacy or ethical restrictions.

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