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Clinical trials involving cats: What factors affect owner 1 participation?

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Abstract

Clinical trials are frequently hindered by difficulty recruiting eligible participants, increasing the timeline and limiting generalizability of results. In veterinary medicine, where proxy enrollment is required, no studies have detailed what factors influence owner participation in studies involving cats. We aimed to investigate these factors through a survey of owners at first opinion practices.

The survey was designed using feedback from a pilot study and input from clinical researchers. Owners were asked demographic questions and whether they would, would not, or were unsure about participating in a clinical trial with their cat. They then ranked the importance and influence of various factors on participation using a 5-point Likert-type scale, and incentives from most to least encouraging.

A total of 413 surveys were distributed to cat owners at four hospitals, two feline-only and two multi-species; 88.6% were completed. Data for importance and influence factors as well as incentive rankings were analyzed overall, by hospital type, location and whether owners would consider participating.

The most influential factors were trust in the organization, benefit to the cat and veterinarian recommendation. Importance and influence factors varied by willingness to participate. Ranked incentives were not significantly different across groups, with “Free Services” ranked highest.

This study provides a first look at what factors influence participation in clinical trials with cats. Given the importance placed in the recommendation of veterinarians, continued work is needed to determine veterinarian related factors affecting clinical trial participation. The results provide guidance towards improved clinical trial design, promotion and education.

Keywords

Clinical trial; research; cats; participation; proxy

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Introduction

Critical to the success of a clinical trial in both human and veterinary medicine is the timely recruitment of a representative sample of participants. Even the best designed and well-funded studies can be hindered by a lack of enrollment. Sluggish enrollment can result in a lengthened trial, which delays publication of results, and poor target population recruitment might limit the generalizability of the findings.¹ The number of participants is further decreased in some pediatric or geriatric studies when the decision for enrollment lies with a proxy and caregiver/parental permission for entry must be sought.² In addition, some populations, such as rural or minority subject, might be underrepresented in clinical trials³

Several studies⁴⁻⁶ have been conducted examining the factors that affect a person's decision to enter a clinical trial, either as a patient or as a caregiver granting proxy consent for entry. A meta-analysis of 33 cancer studies reviewed the barriers to participation for enrolled or eligible clinical trial participants and found that the most frequently reported barriers were related to the protocol design and to patient or physician factors.⁴ Common barriers cited included dislike of randomization or the presence of a placebo group, transportation problems, fear or mistrust of research or researchers, and primary physicians' attitudes toward the trial.

In a review of proxy consent in pediatric research, reasons for granting consent included concerns about a child's illness and the desire to learn more about the medical treatment as well as such altruistic reasons as benefitting others and contributing to medical research.⁵ The same review found that reasons for declining consent included fear of side effects and inconvenience associated with the protocol. Many of the published studies evaluate patients or their proxies who have enrolled in a clinical trial, rather than a sampling of potential enrollees. A study that investigated parents shortly after they gave, or declined, entry into a clinical trial in a neonatal unit found that perceived risk or benefit of the treatment correlated most strongly with declined or granted authorization respectively.⁶

Clinical trials in companion animal veterinary medicine, by necessity, rely on proxy enrollment. Informed consent is presented to owners, and owners grant permission for their pet to participate. These clinical trials are critical to the field and have advanced therapies in medicine,⁷ pain management,⁸ cardiology,⁹ and behavior¹⁰ among others. Controlled trials have also critically evaluated therapies already in clinical use,¹¹ helping to better inform clinical practice. In addition, species differences in metabolism and tolerance for various drugs¹² make it particularly important to evaluate safety and efficacy of putative treatments in the target species and target population through clinical trials. As in human medicine, clinical trials in companion animal veterinary medicine, particularly in cats, are hampered by difficulties with timely recruitment of eligible animals (unpublished data). One obvious reason for this would be the current low percentage of cat-owning U.S. households that regularly take their cats to veterinary hospitals.¹³ However, by querying cat owners who were bringing their pets to veterinary hospitals (potential enrollees), we aimed to determine the factors influencing clinical trial participation among owners actively seeking veterinary

care. To our knowledge, no previous study has investigated the reasons that such people would, or would not, participate in a clinical trial with their pets.

The objectives of the current study were to investigate the factors that are important to people when considering participation in a clinical trial with their cat, detail those factors that make it more or less likely that they would participate, and determine whether demographic features such as location or hospital type (feline-only vs. multi-species) influenced these factors. Additionally, we aimed to evaluate factors that were important and influential to people who indicated interest in participation versus those who are unsure about participation. Finally, the study investigated what incentives would encourage people to participate in a clinical trial with their cat.

Methods

Development of Survey

The survey was constructed with input from experts in feline clinical research, as well as from cat owners. The survey collected limited, relevant demographic input, information about the factors important to cat owners when considering participation in a clinical trial and factors that would encourage or dissuade an owner's participation in a clinical trial with their cat. Factors of importance (termed the importance scale) affecting the owner's decision to participate were rated on a Likert-type scale from 1 to 5, with 1 being "not important at all" and 5 being "very important". The next section concerned factors of influence (termed the influence scale), rated from "much less likely" to "much more likely" for how they would influence an owner's participation. The final section asked participants to rank a list of incentives from the most encouraging, scored at "1" to the least encouraging, scored at "5". Owners were also able to identify and rank an "other" incentive that would be encouraging for participation. At the end of the survey participants could share additional comments they had on clinical research studies or about the survey. A pilot study was conducted; 15 cat owners visiting North Carolina State University Veterinary Health Complex and 25 cat owners visiting a local veterinary hospital were included and gave feedback on the survey. Feedback on items such as clarity of the questions, time spent completing the survey and feasibility of the survey was used in the development of our final version.

Cat Owner Selection and Practices

Selection of the practices was done in early June 2013 with initial practice meetings taking place in June and July. In-house meetings consisted of the investigators meeting with an individual, identified by the practice, responsible for coordinating the distribution of the survey. These individuals formed the communication channel with investigators and were contacted by investigators every 2–3 weeks for updates on progress, goals and needs. Survey leaders held roles such as veterinarian, office manager or technician at the practice. To be eligible to complete a survey, pet owners were required to have at least one cat. Only one survey could be completed per household. Of the 4 practices chosen to participate 2 were feline-only and 2 were multi-species. Two practices, one feline-exclusive and one multi-

species were in Location A, and the remaining two were in Location B, both cities within the Triangle Region of North Carolina.

Data Collection

Surveys were administered at a time chosen within the client's visit by each individual practice. If an owner declined, the survey was taken back and marked as a declined survey with the reason being noted, if given. All responses were kept anonymous. The survey was administered over a two month period, and based on anticipated appointments; a goal was set for the multi-species hospitals to complete 100 surveys and the feline-exclusive hospitals to complete 150 surveys. A free breakfast for the practice was offered as incentive for reaching these goals. Completed surveys were collected by the investigators throughout the administration period. The number of surveys completed and progress towards the goal was discussed with the practices throughout the administration time period.

Statistical analysis

Statistics were performed using a statistical software package (JMP 9.0, Cary NC) with the critical value for significance set at $p = 0.05$. Hospitals were identified individually, by type (cat only vs. multi-species) and location (Location A vs. Location B). Descriptive statistics were calculated to describe survey completion, prior participation, whether caregivers would consider participation, number of cats and dogs in the home, whether caregivers could medicate their cats, and preferred method of administering medication. Completion rate over the two months was calculated both as number of completed surveys divided by number of total surveys returned and as the number of completed surveys divided by 150 for feline-only hospitals and 100 for multi-species hospitals (the largest number of potential surveys an individual hospital or each type was expected to complete). Proportions were analyzed using non-parametric tests as indicated; Spearman's rho values were calculated for correlations between factors.

Data from the importance scale were entered as interval level data from 1–5, where 1=least important and 5=most important for analysis. Means were calculated to rank importance factors, and Chi-square or Fisher's exact tests were used to evaluate differences in the distributions of responses between respondents that would participate (Would group) and those that were unsure about participating in a clinical trial with their cat (Unsure group). Data from the influence scale were converted to interval ranges from 1–5 where 1=much less likely, 3= neither more or less likely, and 5=much more likely. Means were calculated to rank importance factors, Wilcoxon rank sum tests were used to evaluate whether influence scale factors differed from the null value of 3, and Chi-square or Fisher's exact tests were used to evaluate differences in the distributions of responses between respondents the Would and the Unsure groups.

Results from the ranking of incentives revealed several issues. Many respondents failed to rank all options, or applied the same rank to multiple options. Therefore, for further analysis, incentives were coded as follows: first, a category was created for each incentive that indicated whether that option had been included in a respondent's top three. A "yes" response could be achieved by assigning a 1, 2, or 3 to the item, having checked the item

alone or with 1–2 other items, or by assigning a 1 or 2 or 3 to 1–3 items. If a respondent checked more than three items or assigned ranking to items such that it was impossible to determine the top 3 (without order), the data from that question were discarded. Second, a new category was created called “Which #1” whereby if a respondent had assigned a 1 or placed a check mark by a *single* item, that item was considered their top choice. Data from respondents who did not assign a 1 or place a check mark by a single item were discarded from this category.

Results

A total of 413 surveys were returned, with 366 (88.6%) completed. In general, a reason for the non-completion was not noted on the survey. Completion rate (the number completed over the number returned) over the study period varied by hospital and ranged from 75.5% for one multi-species hospital to over 90% for the remaining hospitals. Hospital completion (returned over goal) also varied by hospital from 46% for one hospital to 116% for another.

Overall, cat caregivers had a mean of 2.15 cats in the home (range 1–11) and did not vary by hospital type (t-test, $p=0.09$) but did vary by location (t-test, $p=0.0004$) with owners from Location A owning significantly fewer cats than owners at Location B (Table 1). Number of dogs in the home ranged from 0–10, with a mean of 0.39 and no significant difference by hospital location (t-test, $p=0.11$) There was a significant difference by hospital type (t-test, $p<0.0001$) with respondents from feline-only hospitals owning significantly fewer dogs than respondents from multi-species hospitals. However, there was a significant difference, by hospital type, in the number of people that owned no dogs (Chi-square, $p<0.0001$) with 87% of the respondents from the feline-only hospitals owning no dogs, while only 56% of respondents at the multi-species hospitals owned no dogs. The odds ratio for owning more than zero dogs if being a respondent at feline only hospitals vs. multi-species hospitals was $OR=0.188$ (95% $CI=0.114, 0.309$).

Owner responses on the ability to medicate their cat did not vary by hospital type (Fisher’s exact, $p=0.1711$) but did vary by location with respondents from Location A indicating that they were less able to medicate their cat (Fisher’s exact, $p=0.0009$). For preferred form of medication for their cat, there was a fairly even distribution across the different methods, with 26% of respondents indicating pills as their preferred form, 26% indicating flavored liquid, and 33% indicating flavored chew. The remaining respondents indicated a combination of forms with 7% preferring either a pill or flavored chew. Preferred form did not vary by hospital type (Chi-square, $p=0.41$) or location (ChiSquare, $p=0.69$).

Clinical trial participation

In general, prior participation in a clinical trial was low, with 95% of respondents indicating that they had not previously participated in a clinical trial with their cat. However, this varied significantly by hospital (Fisher’s exact, $p=0.0013$) with 12% of respondents from one cat hospital having participated in a clinical trial with their cat in the past. Of the respondents who had prior participation in a clinical trial, 71.4% indicated that they would consider participating in a clinical trial with their cat and 28.6% indicated that they were

unsure about participating; no one in this group indicated that they would not participate in a clinical trial with their cat.

Overall, 38% of respondents indicated that they would consider participating in a clinical trial with their cat, 44% were unsure about participation, and 18% indicated that they would not consider participating. The distribution of cat caregivers who would consider participating did not vary by hospital (Fisher's exact, $p=0.158$) or hospital type (Fisher's exact, $p=1.00$), but did vary by location, with respondents from Location A being less likely to consider participating, regardless of hospital type (Fisher's exact, $p=0.0412$). Number of cats in the home also significantly influenced participation, such that respondents who would consider participating or were unsure about participating had more cats in their home than respondents who would not consider participating (ANOVA, $F=6.3726$, $p=0.0019$).

Importance scale

Overall results for each factor are illustrated in Table 2, which shows the factors in decreasing order of importance as well as the proportion of respondents indicating each answer. Several of these factors were found to vary significantly by whether respondents would, would not, or were unsure about participating in a clinical trial. The proportion of respondents in the "Would" and "Unsure" groups who assigned a high importance score (4 or 5) to these factors are detailed in Table 3. One importance factor, "Benefit to my cat," varied by hospital type (Chi-square, $p=0.0294$) with 92% of respondents from cat hospitals and 86% of respondents from multi-species hospitals assigning an importance score of 4 or 5 (high importance). In addition, the factor "My veterinarian recommended the trial" varied by location (Chi-square, $p=0.0185$) with 75% of respondents from Location A and 89% of respondents from Location B assigning an importance score of 4 or 5. In general, importance scores for each factor were lower in the group of respondents who indicated that they would not consider participating in a clinical trial with their cat, except for the factors "Friend recommended the trial" and "Benefit to my cat". Correlations between the importance factors were analyzed, and the most highly correlated factors were "Benefit to other cats" and "Advancement of veterinary medical knowledge" ($r=0.5934$, $p<0.0001$), and "Number of trips/visits my cat would have to make for the trial" and "Number of trips/visits I would have to make for the trial" ($r=0.7602$, $p<0.0001$).

Influence scale

Overall results for each factor are illustrated in Figure 1, which shows the factors in decreasing order from much more likely to much less likely. All factors except "Approved in the US to treat other conditions in cats" were ranked as significantly different from the null value of "Neither more or less likely" ($p<0.004$ for each). All factors on the influence scale were found to vary significantly by whether respondents would, would not, or were unsure about participating in a clinical trial with their cat. Proportion of respondents in the Would and Unsure groups who responded that a factor on the influence scales would make them "Much less likely" or "Less likely" (for factors with a mean influence score less than 3) or "Much more likely" or "More likely" (for factors with a mean influence score more than 3) are detailed in Table XX. No influence factors varied significantly by hospital type or location.

Incentives scale

Data from the incentives scale were available for analyzing “Which #1” for 311 surveys where a single incentive was ranked highest (85.0% of completed surveys). The incentive ranked as most encouraging overall was “Free Services (bloodwork, exams, etc.),” being given a ranking of #1 on 228 of 311 surveys (73.3%) where a single incentive was ranked highest. Conversion to Y/N for whether an incentive was in a respondent’s top three allowed data to be analyzed for 356 surveys (97.3% of completed surveys). The incentives most likely to be listed in people’s top three included “Free Services,” “Financial Incentives,” and “Gifts for my cat” (Chi-square, $p=0.0001$ for each). Distribution of incentives rankings did not vary by hospital type or location. Twenty-two respondents ranked the “Other” option as most encouraging, 19 of these respondents left a comment. These comments were able to be grouped into categories: benefit to the respondent’s cat (12), benefit to other cats (5), interest in transparency of trial results (1) and a donation to an animal shelter (1).

Discussion

This study offers the first look at the factors that affect an owner’s participation in a clinical trial with their cat. Our findings parallel results from studies of human clinical trial participation, particularly where proxy consent is needed, as in pediatric clinical trials.

Trust in the organization performing the trial and recommendation of the veterinarian were ranked among the most important factors in considering participation in a clinical trial. This finding is similar to that in human studies, where physician recommendations and trust in the organization are frequently cited as motivating factors for clinical trial participation,^{5, 14–16} and is an important consideration when designing and recruiting for clinical trials in veterinary medicine. In a study of pediatricians’ attitudes toward clinical trials, pediatricians acknowledged their role in supporting enrollment among their patients.¹⁷ The study found that some pediatricians viewed randomized clinical trials as a hindrance to the individual doctor-patient relationship and voiced concerns regarding lack of control over interventions used during a trial. Veterinarian-client-patient relationships are similarly strong, and veterinary input was rated as very important by 73% of respondents. Support from veterinarians for clinical trials and recruitment through veterinary hospitals might be the most effective way of enrolling the most willing participants.

Over a third of respondents across the hospitals included in this study were unsure about participation. For those in this “Unsure” group, several factors in both the importance and influence scales were found to be different from those respondents who would consider participating in a clinical trial with their cat. This is an outcome that should be of particular importance to clinical researchers, as respondents in the unsure group represent an important source of potential cases. The number of trips with and without their cat were rated as less important factors for considering participation in a clinical trial with their cat for members of the “Unsure” group vs. the “Would” group, while benefit to other cats and advancement of veterinary medical knowledge were rated as relatively more important. Altruistic motivations have also been noted in studies of human clinical trial participation.^{16, 18} The ability to withdraw at any time was rated as moderately to very important for 74% of respondents, with no difference between the “Unsure” and “Would” groups. This was also

found to be a salient feature for parents in a study of parental awareness of informed consent, where 91% of parents remembered being told this prior to enrolling their child in a clinical trial.¹⁹ When designing a clinical trial, as well any educational or promotional items related to the trial, focusing on factors that are important or influential to this unsure group could enhance participation and enrollment.

Respondents who indicated they would not consider participating in a clinical trial with their cat were different from those who would or who were unsure for many factors. The design of the survey made it impossible to evaluate their reasons for not considering participation, or whether there were any situations in which they might consider participation. The only factor ranked as highly important where this group was not significantly different from the “Would” and “Unsure” groups was for the importance rating of “benefit to my cat,” suggesting that this factor is important to respondents in this group. However the survey design and data collected did not allow investigation of whether any situation might arise in which they would consider participation. It is also possible that respondents were considering the particular cat that they currently owned, and their responses could reflect individual reasons unique to a specific individual animal, rather than whether they would ever consider participating. This may also have affected the finding that owners with more than one cat were more likely to consider participation, as these owners might have been more likely to have what they would consider a ‘suitable clinical trial participant’ in their home at the time of the survey. This is a bias that may have influenced all of the data, however the data are still relevant as clinical study recruitment will depend on owners enrolling the cat they currently own. A final possibility is that these respondents did not feel sufficiently knowledgeable about clinical trials to respond. In order to avoid a lack of awareness or understanding about clinical trials in general, a small introductory paragraph was included with our survey, but a further question about awareness of clinical trials with cats would have been valuable. No respondent indicated they did not know such trials existed, but we also do not know if lack of knowledge played a role for those who chose not to complete the survey at all.

The findings from the influence scale revealed several interesting results. Risk of discomfort to their cat was the factor that most strongly influenced people against participation, with 59% of respondents indicating that this would make them much less likely to participate. This is similar to a recent study of parental factors involved in pediatric diabetes trials in which parents were less comfortable with trials involving potentially painful procedures and rated risk of side effects as most influential in determining participation in a trial.²⁰ In the current study, if a trial involved an experimental medicine or procedure, a majority of owners responded that they would be less (42%) or much less (28%) likely to consider participating. This is important as development of new treatments will necessarily go through a stage of being “experimental,” though safety data might be provided. These two factors, along with the need for cats to wear a monitoring device of some type, were significantly different between those in the “Would” and “Unsure” groups, with those in the “Unsure” group providing more extreme responses (toward the end of the scale) than those in the “Would” group. Reasons for this are unknown, but further work that includes questions about owners’ personal views of research, would provide further insight into the

differences between these groups. Again understanding the motivations of this group is important if potential recruitment to clinical trials is to be optimized.

Several factors, despite having mean influence scores that were significantly different from the null, had a majority of responses (>50%) indicating that the factor would not make the respondent more or less likely to consider participation. The factors “Your cat had to wear a monitoring device,” “There was a chance that your cat would receive placebo,” and “You would be required to keep a daily journal” appear less influential for cat owners considering participation in a clinical trial with their cat, though the monitoring device was more influential for those in the “Unsure group,” where 50% said that this factor would make them less or much less likely to consider participating. This is in contrast to findings from human studies, where the inclusion of a placebo group is often considered a barrier to parental consent for a clinical trial.^{14, 21} One study on humans found that comfort with placebos was strongly positively correlated with willingness to enroll a child with diabetes into a clinical trial.²⁰ For those factors where respondents indicated that it would make them more or much more likely to consider participating (“Approved for cats in another country” and “My cat has the disease the trial is designed for”) the “Would” and “Unsure” groups were similar in their distribution of responses.

Concerns about transportation required for participation in a clinical trial were not directly queried, though the survey included items about number of trips with and without the cat as part of the importance scale. In the free text area, several respondents commented about time constraints, or the stress of travel with their cat, so inquiring only about the number of trips with or without their cat might not have entirely encompassed concerns regarding travel among the respondents. Transportation issues are a potential hindrance to participation in human clinical trials,²⁰ particularly for rural populations,⁴ and our inclusion of clients at moderately urban hospitals in this study could have decreased this concern among respondents. However, we consider the stress of travel with the cat to be of particular concern to cat owners. One respondent commented that their cat cannot give permission to be part of a clinical trial, so they would not consider participation. The inability for the patient to give permission is often cited as a barrier to participation in pediatric human trials^{14, 20, 21} and Alzheimer’s research,¹⁶ and is a reasonable concern in veterinary medicine, however it was only mentioned once. The difference between our results and those in human medicine might be that caregivers of pediatric and Alzheimer’s patients could envision a time when the individuals involved would be, or would have been, able to give informed consent.

This study did have some important limitations. While the number of respondents to the survey was reasonable, the small sample size for hospital type (cat versus mixed) and location (A versus B cities) limits the extension of the findings based on these two categories. While our results did reveal some significant differences by hospital location, the two locations are both moderately urban, though Location A had a population of 239,358 and a median income of \$46,136 in 2011, while Location B had a population of 20,591 and median income of \$74,323 in the same year.²² In addition, while the survey did not ask about clinical trials that would be conducted at the NCSU College of Veterinary Medicine, owners might have inferred this location when answering questions about whether they

would consider participating, and this could reflect their personal experiences or feelings about the College, or the relative distance from the College (25 miles for Location A vs. 9 miles for Location B).

Volunteer bias is always a concern in survey studies.^{23, 24} Attempts to limit this included capturing the percentage of people who did not complete the survey. Compliance with completion was generally high (over 75%) however the number of completed surveys varied by hospital type, which might reflect the lower number of cat appointments seen at multi-species hospitals, or a volunteer bias rooted in the hospital's ability or interest in distributing out the survey to cat owners. While the number of people who did not complete the survey when offered was captured, when it was not, the reasons why the survey was not completed were rarely detailed.

Regional differences in views of clinical trials might vary among cat owners. While differences existed between Location A and Location B, both were moderately urban areas, thus limiting the ability to extend these findings to rural cat owners. In fact, for human clinical trials, recruitment efforts are thought to be more effective at the community, rather than the physician, level.²⁵ The area surrounding the four hospitals involved in this study is a research-intensive area, and respondents could be biased by this fact. However, we feel the results are valuable as the hospitals involved in the present study represent our catchment area for clinical research, and are likely similar to other research institutions where clinical trials with cats are performed. A more widely distributed survey, such as one posted on-line, could address issues of regionality, but are subject to greater volunteer biases than the current study.

In conclusion, this study showed that a substantial portion of cat owners who visit animal hospitals either would consider or are unsure about participation in a clinical trial with their cat. Veterinarian recommendation and trust in the organization were ranked as important factors in the decision about participation. Future work to investigate factors that influence veterinarian participation in or recommendation for a clinical trial might shed further light onto the difficulty with recruitment commonly seen. Free services such as labwork are the most encouraging incentive that can be offered by a trial, and though trial features are clearly important, trial design, advertisement, and explanation emphasizing the benefit to cats and encouraging the endorsement of primary care practitioners can enhance participation in clinical trials with cats.

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Figure 1.

Distribution of Influence scale scores. Factors are listed in decreasing order of importance (top down). The mean influence score and percentage of respondents indicating each response is shown.

^a= Factor in which a significant difference was found between respondents that would or were unsure about participating in a clinical trial with their cat (see Table 4 for analysis).

^b= Factor in which a significant difference was found between respondents that would not participate in a clinical trial, and those that would or were unsure.

Table 1

Mean ($\pm$ standard error) number of cats and dogs owned by respondents at each hospital type and location

	Hospital Type		Hospital Location	
	Feline-only	Multi-species	Location A	Location B
Cats	2.16 ($\pm$ 0.14)	2.14 ($\pm$ 0.10)	1.94 ($\pm$ 0.10)	2.54 ($\pm$ 0.13)
Dogs	0.21 ($\pm$ 0.05)	0.75 ($\pm$ 0.07)	0.49 ($\pm$ 0.08)	0.33 ($\pm$ 0.06)

Table 2

Importance scale scores: Factors are listed in decreasing order of importance (top down). The mean importance score and indicating each factor's (overall mean importance score).

	1 Not at all important	2	3	4	5 Very important
Decreasing order of importance					
Trust in the organization performing the trial ^b (3.61)	0.02	0.01	0.06	0.14	0.76
Benefit to my cat ^c (3.58)	0.02	0.02	0.06	0.18	0.73
My veterinarian recommended the trial ^{bd} (3.21)	0.06	0.03	0.12	0.24	0.56
Number of trips/visits my cat would have to make for the trial ^{ab} (3.14)	0.04	0.04	0.15	0.30	0.48
Benefit to other cats ^{ab} (3.11)	0.02	0.03	0.18	0.35	0.42
Ability to withdraw from the trial at any time ^b (3.09)	0.03	0.05	0.18	0.29	0.45
Number of trips/visits I would have to make for the trial ^{ab} (2.84)	0.06	0.08	0.22	0.28	0.37
Advancement of veterinary medical knowledge ^{ab} (2.75)	0.03	0.07	0.27	0.36	0.26
If a friend of mine recommended the trial (1.36)	0.29	0.26	0.29	0.12	0.04

Overall proportion of respondents that indicated each level of importance

^a = Factor for which a significant difference was found between respondents that would or were unsure about participating in a clinical trial with their cat (see Table 3 for analysis).

^b = Factor for which a significant difference was found between respondents that would not participate in a clinical trial, and those that would or were unsure.

^c = Factor that varied significantly by hospital type.

^d = Factor that varied significantly by hospital location.

Table 3

Proportion of respondents indicating a 4 or 5 on the importance scale by whether they would (Would) or were unsure about participating in a clinical trial with their cat (Unsure) for those factors with a significant difference between these two categories.

Factor	Would	Unsure
Number of trips/visits my cat would have to make for the trial Fisher's exact test, $p<0.0001$	0.85	0.71
Benefit to other cats Fisher's exact test, $p=0.022$	0.74	0.84
Number of trips/visits I would have to make for the trial Fisher's exact test, $p=0.009$	0.70	0.60
Advancement of veterinary medical knowledge Fisher's exact test, $p<0.0001$	0.50	0.82

Table 4

Proportion of respondents in the Would and Unsure groups that responded that a factor on the influence scales would make them 'Much less likely' or 'Less likely' (for factors with a mean influence score less than 3) or 'Much more likely' or 'More likely' (for factors with a mean influence score more than 3) to participate in a clinical trial. P-values from Fisher's exact tests are provided for factors with a significant difference in distribution between the two groups.

<i>Much less likely and Less likely</i>		
	Would	Unsure
Risk of discomfort to cat (p<0.0001)	0.89	0.95
Experimental medicine or procedure (p=0.011)	0.60	0.76
Cat would have to wear monitoring device (p=0.002)	0.30	0.50
Cat might get placebo	0.21	0.25
Daily journaling	0.21	0.29
Approved for this condition in people but not in cats (p=0.015)	0.29	0.39
Approved in the US to treat other condition in cats (p=0.001)	0.17	0.32
<i>Much more likely and More likely</i>		
Approved for cats in other country	0.57	0.50
Cat has the disease the trial is designed for	0.93	0.89