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Asking About Pets Enhances Patient Communication and Care: A Pilot Study

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Abstract

This research explored whether asking patients about their pets would enable better environmental/social history taking, and improve patient communication/care. Primary health care providers (PHPs) were surveyed about prevalence of patients living with pets, the health impact of pets, and influences on patient communication. Following an educational intervention, they committed to asking patients about their pets. A follow-up survey was conducted electronically. PHPs were recruited at a continuing medical education (CME) conference and at CME workshops. All 225 participants were PHPs. At the conference, participants were educated one-on-one about the clinical relevance of pets in the family. CME sessions were large or small group teaching. Baseline and final surveys measured awareness of pets in patients' families, assessment of determinants of health, impact on rapport with patients, and patient care. A sign test assessed difference in scores using repeated-measures analysis. Binomial outcomes were assessed using Fisher's exact test. Comments were themed. Ninety-four PHPs (42%) completed the study. Pet-related discussions opened communication with patients. Two-thirds of participants identified positive effects on practice and on relationships with patients. PHPs were able to leverage the health benefits of pets (zooeyia) and mitigate zoonotic risk. Asking patients about pets in the family reveals clinically relevant information, improves communication, and strengthens the therapeutic alliance.

Keywords

pets, communication, primary care, social capital, environmental health, patient care, activities of daily living, social environment, surveys and questionnaires, zooeyia

Purpose

Primary care encompasses patient-centered communication and care, exploring determinants of health, activating family resources, developing rapport, and building a therapeutic alliance with patients. Nonjudgmental, open-ended questions begin conversations with patients about how they live.[1] Asking patients about their pets can open communication, reveal clinically relevant information, and offer insights into their lives.[2] Sixty-five percent of American households include pets.[3] Children are more likely to live with a pet than a sibling or their biological father.[4] Pet owners think of their companion animals as members of the family.[5] The strong bonds people have with their pets[6,7] are a valuable resource to primary health care providers (PHPs), enabling implementation of self-care.

Pets both benefit and risk human health, affecting all areas of their owners' lives. The positive effects (collectively known as zooeyia)[8] are powerful.[2] Pets build social capital and provide companionship.[9] They motivate healthy behavior change, such as increasing physical activity[10] and encouraging activities of daily living.[11] They are agents of harm reduction, for example as a reason to quit smoking.[12,13] Animal companions can complement medical and psychological therapy as part of patients' normal lives, without additional cost.[14,15] Like all relationships, pet ownership has its risks. The risk of zoonotic disease varies with the species of the pet[16] and with the patient.[17] Owners can be injured when interacting with their animals. Pets impact the shared environment and can challenge family resources (financial, emotional, and social).[2]

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Despite these profound effects, PHPs may be unaware of pets in their patients' families. This study explored 2 factors of PHPs asking their patients about pets in the family when collecting family/social histories and when clinically relevant:

- Does asking about pets enable PHPs to better assess determinants of health, social context, and environmental history?
- Do PHPs find that discussions about pets lead to improved patient communication and care?

Methods

Conforming to the protocol approved by the Research Ethics Board of Markham Stouffville Hospital, PHPs were recruited individually at Primary Care Today, a large continuing medical education (CME) symposium held on May 6-9, 2015, in Toronto. Four additional CME presentations were advertised through flyers distributed there and by email to members of the Ontario College of Family Physicians and the Ontario Medical Association. The family physicians, nurses, and social workers who attended these CME events were also invited to participate in the study. Informed consent was acquired from all participants. Each was randomly assigned a unique 4-digit number to enable matching data from baseline and follow-up surveys. No patient data were requested or collected.

A baseline survey focused on PHP's general knowledge of their patients' pets (how many live with pets and what pet-related discussions revealed about how their patients live), the frequency of discussions with patients about the 4 categories of zooeyia and the 4 categories of zoonotic risk, and whether the PHP had ever collaborated with a veterinarian regarding patient care.

CME interventions informed participants educated about pets' impact on people's health—the benefits of zooeyia, the zoonotic risks associated with pets, and the opportunity to facilitate interprofessional collaboration with veterinarians. An algorithm for asking about pets was reviewed:

- Are there pets in your extended family?
- If yes, how many? What species?
- May I have the contact information for your veterinarian?

Three kinds of educational intervention were used. Participants enrolled at Primary Care Today were educated individually by an investigator or a trained assistant. Those attending CME presentations took part in either large group lectures or a small group, case-based workshop. All were given a brochure highlighting salient points, including 25 references. Participants then verbally agreed to ask their patients about pets in their families when it was clinically relevant.

Following the educational interventions, monthly emails were sent to participants, reinforcing relevant information and inviting questions. After 3 to 4 months, they were invited to take a final online survey,[18] which paralleled the baseline survey and asked for comments. Two reminders were sent as required. The survey was then closed, and data were analyzed.

Binomial outcomes (ie, yes or no answers) were analyzed using Fisher's exact test.[19] Differences were deemed statistically significant if $P < .05$. Where scores were recorded at baseline and at the end of the study, a sign test on the difference in scores was conducted (SAS). Categorical results (eg, frequency of patient discussions on specific topics) were converted to an ordinal scale based on the 5 categories, and P values were based on the change from baseline. Responses to open-ended questions were themed, using conventional content analysis.[20]

Results

The 225 participants in the study represented a variety of health care professions, including physicians (120; 53%), social workers (30; 13%), nurse practitioners (29; 13%), pharmacists (14; 6%) and nurses (14; 6%). Most (147; 65%) were educated through individual academic outreach, 64 (28%) in large group lectures, and 12 (5%) participated in a case-based workshop. Ninety-four participants (42%) from multiple health care professions completed the study. Current pet owners were more frequently represented ($P < .05$) among those who completed the study. Previous pet experience did not affect the likelihood of study completion.

The type of educational intervention had some impact on the completion rate. Ninety-two percent (n = 11) of PHPs who participated in the case-based small group workshop completed the study, as did 47% (n = 30) of those who attended the large group lecture and 36% (n = 53) of PHPs educated through individual outreach.

Over the course of the study, PHPs better determined which of their patients lived with pets. Their confidence in their estimates of the prevalence of pet ownership among their patients increased significantly ($P < .01$; Table 1). The frequency of asking about pets increased significantly ($P < .01$). "Routinely" asking about pets was defined in 2 ways to accommodate the usual language of participants' professions: "when interviewing new patients or at periodic health review" and "in every nonemergency patient visit." When the results of both categories were combined, routinely asking about pets increased significantly ($P < .01$). All PHPs had patients with pets. Their patients owned a variety of pets, most notably dogs and cats. The patients of most participants (76; 81%) owned more than 1 species of animal, including small mammals, reptiles, birds, and horses.

No PHP reported that patients were reluctant to answer questions about pets in the family. Patients were quick to answer (45; 48%), revealed more about themselves and their pets (66; 70%), and appeared to develop better rapport with the PHP (45; 48%). In response, patients presented clinically relevant information to the PHP.

Table 1. Knowledge of Pets in Patients' Families.

	Baseline		Final		
Survey question	n	%	n	%	*P*
What percentage of the families you care for live with pets?					
I don't know	53	56	24	26	.0001
0% of families	0	0	0	0	
In the past year (baseline)/ During your participation in this project (final), how often have you asked patients/clients about pets in their family?					
I don't know	12	13	4	4	
Never	16	17	3	3	.0010
Routinely—new patients and at periodic health reviews	8	9	21	22	.0002 (pooled)
Routinely—all nonemergencies	4	4	8	9	

Note. Responses of those who completed the study (n = 94) at baseline, and on the final survey, using repeated-measures analyses.

Table 2. Impact of Asking About Pets.

			Pooled	
Survey question	n	%	n	%
What impact (if any) does asking about your patients' pets have on your practice?				
Improved rapport/therapeutic alliance	17	18	62	66
Provides additional avenue to care	14	15		
Better understanding of patient	11	12		
Positive (unspecified)	8	9		
Improved communication with patient	7	7		
Establishes common ground	5	5		
Minimal/none	9	10		
Other	2	2		
No response	21	22		
What impact (if any) does asking about your patients' pets have on your relationship with your patients?				
Improved rapport/therapeutic alliance	22	23	67	71
Positive (unspecified)	21	22		
More open, smoother communication	9	10		
Patients appreciate the interest	8	9		
Establishes common ground	4	4		
More insight into patient	3	3		
Minimal/none	3	3		
Other	2	2		
No response	22	23		

Note. Responses of those who completed the study (n = 94) on the final survey.

Participants reported that they learned more about their patients' physical activity (78; 83%), about patients' family members and social capital (51; 54%), and about patients' housing (51; 54%). Four participants (4%) reported that they learned nothing new about their patients when they asked about pets in the family.

Open-ended questions on the final survey asked about the impact of asking about pets on PHP's practice and on their relationship with patients. The strongest impact was an improved therapeutic alliance with patients (Table 2). The final survey invited comments on challenges to asking about pets in patients' families (Table 3). Twenty-seven participants (29%) found no challenge to asking about pets. The most commonly cited challenge was lack of time (n = 20; 21%), with several indicating this was due to patients' enthusiasm for the topic of their pets. Some participants found little or no impact on their practice, but most found that asking about pets had a positive impact. PHPs most frequently mentioned improvement in rapport or the therapeutic relationship, identification of an additional avenue to patient care, and improved understanding of the patient. Most found that pet-related discussions with patients had a positive impact on their relationship and improved provider-patient rapport/therapeutic alliance.

Table 3. Challenges to Asking About Pets.

Survey question	n	%
What challenges did you identify to asking about pets in patients' families?		
None	27	29
Lack of time	20	21
Not relevant to the appointment	5	5
Awkward (no lead-in, no opportunity)	3	3
Difficult topic (related to finances)	3	3
Remembering to ask	3	3
Presence of children	3	3
Grief of pet loss	2	2
Other	5	5
No response	23	24

Note. Responses of those who completed the study (n = 94) at baseline, and on the final survey, using repeated-measures analyses.

Asking about pets changed practice behavior (Table 4). Participants were significantly able to leverage all categories of zooeyia in practice: social capital ($P < .05$), physical exercise ($P < .05$), controlling unhealthy behaviors ($P < .05$), and the therapeutic benefits of pets ($P < .01$). Likewise, they were significantly able to mitigate 2 categories of zoonotic risk: infectious disease and injury ($P < .01$). There was no significant change in mitigation of the environmental impact of pets, nor in their potential challenge to family resources.

Participants were asked about interprofessional collaboration with veterinarians. There was no significant change, although several commented that they now would consult a veterinarian as clinically appropriate.

Discussion

Asking about pets during patient interviews influenced both the quality of communication with patients and the available approaches to care. Asking about pets is a universally applicable, universally accepted, and boundary-appropriate way to open communication with patients. All participants had patients with pets, and all patients responded without objection. Asking about pets was relevant to all primary care practices, while not to all patients. It was inoffensive to those without pets and encouraged pet owners to talk about their daily lives. Asking about pets significantly increased providers' knowledge of their patients and how they lived. Participants gained important understanding of patients' physical activity, social capital, and housing. Remarkably, only 4 PHPs (4%) found that asking about pets revealed nothing about patients' home life. Participants valued this increased understanding of patients. Thirty-one percent incorporated asking about pets as a matter of routine—a significant change in practice.

PHPs who currently owned pets were more likely to complete the study. Their familiarity with pets may have been a strong motivator. Pet-owning PHPs could effectively use pet-related discussions with patients as a boundary-appropriate way to share aspects of their own lives to no detrimental effect.

Two-thirds of participants reported that asking about pets had a positive impact on their practice and relationships with patients. The strongest effect was improved rapport/therapeutic alliance. This is foundational to primary care. Participants were able to leverage zooeyia in their care of patients. Fifteen percent of participants noted that asking about pets opened new avenues to care. The strongest change was in incorporating pets into treatment plans. Pets are an existing resource to PHPs. Evidence of the impact of pets on human health is well established, yet PHPs seldom avail themselves of opportunities to activate this family resource. Using activities with pets to complement medical therapy is readily accepted by patients; their animal companions are part of their everyday life.

Discussions with patients about mitigating the risk of zoonotic disease and injury increased significantly. Physicians generally consider management of zoonotic risk a responsibility of public health services and veterinarians.[21] After the educational intervention, many PHPs expressed increased confidence to work in this area. Dogs and cats were certainly the most popular pets in this study, which is consistent with national surveys.[3] The higher than expected representation of horses may indicate participation of rural PHPs. Ownership of pocket pets, birds, and reptiles also exceeded published reports.[3] This underlines the need for understanding how each species differs in their impact on owners' health.[22] There was no change in patient discussions regarding the environmental impact of pets. At the outset of the study, many PHPs were concerned about pets causing asthma. Recent research has revealed that early exposure to pets has a protective function against all allergic disease.[23-25] Conversely, relatively few participants were aware of the importance of environmental contamination with intestinal parasite eggs,[26,27] for example, and preventive steps to recommend to patients. Following the educational intervention, PHPs may have recalibrated their assessment of the environmental impact of pets, seeing less risk for their previous concerns and recognizing risks they had not previously considered. There was also no change in patient discussions around pets' challenge to family resources (financial, emotional, and social). During the baseline survey and educational interventions, PHPs often expressed discomfort with such topics.

The most frequently identified challenge to asking patients about pets is lack of time. People love to talk about their pets. Each practitioner must weigh the potential time pressure against the value of improved communication and rapport with the patient, as well as what clinically relevant information may be revealed in pet-centered discussions.

PHPs regularly refer to specialists when it is appropriate to patient care, yet interprofessional collaboration with veterinarians remains rare. There have long been calls for collaboration

Table 4. Participants' Change in Practice Following Asking About Pets.

Pet-related discussions with patients	Weighted average			
	Baseline	Final	Change	*P*
Zooeyia				
During your participation in this project, of your patients who live with pets, with what percentage have you discussed . . .				
the positive effect of companionship and social interaction from the pet?	47.78%	53.61%	+5.83%	.0145
the benefits of regular physical activity or exercise with the pet?	40.08%	50.97%	+10.89%	.0183
the pet as a motivator for controlling unhealthy behaviors?	22.88%	29.9%	+7.02%	.0110
the therapeutic effect of the pet on anxiety and stress?	45.22%	55.81%	+10.59%	.0002
Zoonotic risk				
During your participation in this project, of your patients who live with pets, with what percentage have you discussed . . .				
your concern about an infectious zoonotic disease?	11.92%	18.28%	+6.36%	.0015
your concern about a zoonotic injury?	11.05%	17.08%	+6.03%	.0095
your concern about the pet's adverse impact on the environment?	25.96%	23.04%	−3.92%	1.0000
your concern about pressures on family resources because of the pet?	14.86%	16.97%	+2.11%	.5758

Note. Responses of those who completed the study (n = 94) on the final survey. *P* values were based on the change in frequency of patients with whom discussed, from baseline. Frequency scored as 5 = 100%, 4 = 76%-99%, 3 = 51%-75%, 2 = 26%-50%, 1 = 1%-25%, and 0 = none.

between PHPs and veterinarians.[28,29] This is particularly important when patients are immunocompromised; veterinarians are seldom aware of such patient conditions.[30] Veterinarians can provide prevention protocols for infectious diseases transmissible from pets. The global One Health initiative is dedicated to improving human, animal, and environmental health. Taking a more One Health approach at the community level would improve patient care. Several participants commented that they were now more comfortable with communicating with a patient's veterinarian and would do so when clinically appropriate. This would require the patient's permission.[31]

Limitations and Next Steps

This study is limited by the sampling bias of participants' self-selection which may not be representative of all PHPs. Forty-two percent of participants completed the study. Some attrition can be attributed to the 3- to 4-month length of the study. Budget restrictions of this pilot study prohibited gathering data on the patients' perspectives of discussions about their pets with their health care providers. Patient input, and that of PHP-patient partnerships, is the next step in researching this communication approach.

Conclusions

This project is a first step to answer calls for balanced research investigating both the benefits and the risks of pet ownership to human health.[17] These results are compelling, even though there was a time limitation to this study. In its span of 3 to 4 months, most PHPs would not have seen all their patients, yet those who engaged made significant changes to their practice and approaches to patient communication.

PHPs continually seek ways to connect with patients. Asking about pets in patients' families is a patient-centered communication strategy which can address determinants of health, strengthen the therapeutic alliance, and open new avenues to care.

Authors' Note

The views expressed in the submitted article are those of the authors and not an official position of their institutions.

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