Hospice care in Calgary

Survey of family physicians on their knowledge, experience, and attitudes

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Abstract

Objective To explore Calgary family physicians' knowledge about hospices, their attitudes toward the referral process, and their understanding of barriers to referral for hospice care.

Design Surveys were mailed to 400 randomly selected participants. The survey contained 18 questions related to hospice care, physician experience, attitudes, and perceived barriers to making a hospice referral.

Setting Calgary, Alta.

Participants Family physicians.

Main outcome measures Survey responses were analyzed quantitatively using the χ^2 goodness-of-fit test, Kruskal-Wallis tests, and logistic regression analyses to examine univariate associations. Qualitative analysis of open-ended questions was done by content analysis and thematic coding.

Results In total, 104 surveys were mailed back. Family physicians agreed that palliative care in a hospice setting can greatly improve quality of life for patients, but only 2 of 6 knowledge questions about hospice care were answered correctly by most. Family physicians with special areas of interest or subspecialties were more likely to feel well-informed about hospice referrals ($P=.017$), indicated a higher comfort level discussing hospice and palliative care ($P=.030$), and were less likely to defer discussing it with patients ($P=.023$). Physicians with a special interest in palliative medicine were more likely to correctly answer the knowledge questions ($P<.034$) and to be familiar with the referral process ($P<.001$), patient eligibility ($P<.001$), and the palliative home care program ($P=.003$). Qualitative analysis revealed support for palliative home care and consultation services but concerns about caregiver coping and family issues. Concerns about disengagement of family physicians and uncertainty about the referral process are obstacles to referral.

Conclusion While Calgary family physicians are appreciative of hospice care, there are knowledge gaps. It is important to engage family physicians in the referral process.

EDITOR'S KEY POINTS

- Most physicians (88%) strongly agreed that hospice care enhances quality of life for patients and families. However, of the 6 statements on the knowledge test, only 2 were answered correctly by more than half of respondents.
- When asked about discussing the process of hospice referrals, only 57% of respondents indicated they feel well-informed to do so, and only 41% responded they were familiar with patient eligibility for hospices. Family physicians with a special interest in palliative medicine were more likely than other family physicians to be knowledgeable about hospice care, the referral process, and other services.
- The main barrier to hospice referrals is a lack of information about the referral process. Other issues include the disengagement of family physicians from the referral process and the discomfort of patients and family members with hospice care.

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Maisons de soins palliatifs à Calgary

Sondage auprès de médecins de famille sur leurs connaissances, leur expérience et leurs attitudes

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Résumé

Objectif Examiner les connaissances médecins de famille de Calgary à propos sur les maisons de soins palliatifs, leurs attitudes à l'endroit du processus de demande d'admission et leur compréhension des obstacles à l'admission en soins palliatifs.

Conception Des sondages ont été envoyés par la poste à 400 participants choisis au hasard. Le questionnaire comptait 18 questions portant sur les maisons de soins palliatifs, l'expérience du médecin, ses attitudes et les obstacles perçus à faire une demande d'admission en soins palliatifs.

Contexte Calgary, en Alberta.

Participants Des médecins de famille.

Principaux paramètres à l'étude Les réponses au sondage ont été analysées quantitativement à l'aide du test d'ajustement du khi^2, des tests de Kruskal-Wallis et d'analyses de régression logistique pour examiner les associations univariées. L'analyse qualitative des questions ouvertes a été effectuée par l'analyse du contenu et le codage selon les thèmes.

Résultats Au total, 104 sondages ont été retournés par la poste. Les médecins de famille conviennent que les soins palliatifs dispensés dans une maison spécialisée peuvent améliorer considérablement la qualité de vie, mais seulement 2 des 6 questions concernant les connaissances à propos des maisons de soins palliatifs ont reçu une réponse correcte par la majorité des répondants. Il était plus probable que les médecins de famille ayant des intérêts particuliers ou surspécialisés se sentent bien informés au sujet des demandes d'admission en soins palliatifs ($p = ,017$), et qu'ils aient indiqué être plus à l'aise de discuter des soins palliatifs et des maisons spécialisées avec les patients ($p = ,030$) et moins enclins à reporter les discussions avec les patients à cet égard ($p = ,023$). Les médecins qui s'intéressaient plus particulièrement à la médecine des soins palliatifs étaient plus susceptibles de répondre correctement aux questions sur les connaissances ($p < ,034$) et à être familiers avec le processus de demande d'admission ($p < ,001$), les critères d'admissibilité des patients ($p < ,001$) et le programme de soins palliatifs à domicile ($p = ,003$). L'analyse qualitative a révélé un soutien pour les soins palliatifs à domicile et les services de consultation, mais des inquiétudes à propos de la capacité des aidants à composer avec la situation et des problèmes familiaux. Le désengagement des médecins de famille et des incertitudes entourant le processus de demande d'admission sont des obstacles à de telles demandes.

Conclusion Si les médecins de famille de Calgary apprécient les maisons de soins palliatifs à leur juste valeur, il existe des lacunes dans les connaissances. Il est important d'engager les médecins de famille dans le processus de demande d'admission.

POINTS DE REPÈRE DU RÉDACTEUR

- La majorité des médecins (88 %) sont fortement d'accord pour dire que les soins palliatifs en établissement améliorent la qualité de vie des patients et des familles. Toutefois, parmi les 6 questions portant sur les connaissances, seulement 2 ont reçu une réponse correcte par plus de la moitié des répondants.
- Aux questions portant sur la discussion du processus de demande d'admission en soins palliatifs, seulement 57 % des répondants ont répondu se sentir assez bien informés pour ce faire et seulement 41 % ont dit être familiers avec les critères d'admissibilité des patients en maison de soins palliatifs. Les médecins de famille ayant un intérêt particulier pour la médecine de soins palliatifs étaient plus susceptibles que les autres médecins de famille d'être bien informés à propos des maisons de soins palliatifs, du processus de demande d'admission et des autres services.
- Le principal obstacle aux demandes d'admission en soins palliatifs réside dans le manque d'information à propos du processus pour ce faire. Parmi les autres problèmes figurent le désengagement des médecins de famille envers le processus de demande ainsi que le malaise des patients et des membres de la famille entourant les maisons de soins palliatifs

Cet article a fait l'objet d'une révision par des pairs.
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Palliative medicine is an integral aspect of family medicine. End-of-life care is complex and requires multidisciplinary teams across many settings of patient care.[1,2] In Canada, the term *hospice* usually refers to a care centre designated for patients facing terminal illness with a defined life expectancy and requiring around-the-clock medical and nursing care that they would otherwise not have access to at home.[3] A study from Alberta has shown that while 70.8% of people would prefer to die at home, 14.7% would prefer to die in a hospice.[4]

Previous studies conducted in the United States demonstrated barriers to hospice care and referrals.[5-8] These studies identified several potential barriers for patients considering hospice care that involved the health care system, the hospice itself, and health care providers.[5,6] They identify family physicians as important players in the referral process to hospice care.[5,6,9] Another study identified physicians' fear of losing control of and contact with their patients as a barrier to hospice use.[7] This reluctance might also manifest as a resistance to considering hospice care after time and effort have been invested in a pre-existing management plan. These studies illuminate some of the physician-based barriers to hospice referral and suggest that, although family physicians value the benefits of a hospice, the main barrier to referral could be lack of information or uncertainty about hospice criteria for admission.[5,6]

Little is known about Canadian family physicians' perception of hospice care. Gaps in service have been identified in the provision of palliative care in Canadian communities,[10] but not specifically associated with institutional hospice care. Interpretation of previous studies related to hospice care is limited by the differences between the Canadian and American health care systems. We sought to address the issue of hospice referral in the Canadian context using the following research questions: What are the perceived barriers to appropriate hospice referrals from family physicians in urban hospices? and How do family physicians feel about informing their patients about hospice services in the community?

METHODS

Survey procedure

We mailed a survey to family physicians practising in Calgary, Alta. We randomly selected 400 physicians from the website of the College of Physicians and Surgeons of Alberta, representing almost a quarter of the nearly 1500 family physicians in the city. Randomization took place by selecting names from an alphabetized list using a systematic sequence. The survey was created by the investigators and consisted of 18 closed- and open-ended questions related to physician experience, attitudes, and comfort level regarding hospice care, and barriers to making a referral. Knowledge questions were based on information obtained from the Calgary Palliative Care Service website, and open-ended questions were designed to encourage feedback on challenges and barriers.

Demographic data were collected, but physicians could choose to remain anonymous. Some questions asked for opinions using a 5-point Likert scale with the responses *strongly agree, agree, neutral, disagree,* and *strongly disagree,* while knowledge questions used a 3-point scale with the responses *true, false,* and *not sure.*

Analysis

We analyzed the data using quantitative and qualitative methods. The quantitative data were analyzed using SPSS, version 20. For the knowledge questions, the not sure category was combined with the incorrect response category. To check if the proportions of correct versus incorrect responses were equal or unequal, we used the χ^2 goodness-of-fit test. We examined the associations between items measured on the Likert scale and demographic variables using Kruskal-Wallis tests, and the corresponding χ^2 values and P values are reported. We combined some variable categories to allow further analysis, using them as dependent variables in logistic regression analyses to quantify the strength of the associations. For items with a 5-point Likert scale and a positive response set (ie, agreement with the statement that suggested a positive attitude toward hospice care), the strongly agree and agree categories were combined, as were the neutral, disagree, and strongly disagree categories. For the one item with a negative response set, the neutral category was combined with the agree and strongly agree categories.

After the item categories were combined, we performed logistic regression analyses to examine the strength of the following univariate associations: responses to items measuring knowledge, attitudes, and experiences with items measuring age, type of practice, years in practice, special interest in hospice care, and previous discussions with patients on hospice care. An α level of .05 was used to determine whether a model was to be reported. Odds ratios (ORs) and their 95% CIs were determined for each level of the independent variable in the models that were significant.

Three open-ended questions were asked: What do you do for a patient if the wait for hospice referral is too long? How does interacting with the patient's family factor into your decision to refer to hospice care? and What obstacles have you encountered in making patient referrals to hospice care? As the responses to the open-ended questions were generally short and ranged from a few words to a few sentences, a content analysis of

the responses was completed.[11] Survey responses were coded separately by 2 of the authors (R.S. and N.T.) and the codes were tabulated. The 2 coders then reviewed their codes together and established a coding framework by consensus. The results were then recoded using this framework. The coding process involved compiling responses by question, reading through the responses for themes, coding the responses according to these themes, then counting how many times the themes occurred for each question. All data were kept confidential. The University of Calgary Conjoint Health Research Ethics Board reviewed and approved this project.

RESULTS

Of the 400 surveys that were sent by mail to family physicians in Calgary, 104 surveys were completed and mailed back, for a 26% response rate.

Demographic characteristics

The demographic data are summarized in **Table 1.** Most of the respondents were between 30 and 50 years of age (61%), and about three-quarters had been in practice for more than 5 years. About half (n=47) reported an area of special interest in family medicine such as palliative medicine, geriatrics, or hospital medicine.

Among the respondents, 26 (25%) indicated a special interest in palliative medicine, regardless of the type of practice they had. Most (n=90) of the participants had had previous discussions with patients about palliative care.

Background knowledge about hospice and palliative care

Six knowledge questions were presented, to which the respondents had to answer *true*, *false*, or *not sure*. Overall, only 2 of 6 questions were answered correctly by more than half of the respondents (**Table 2**). These were "The current wait time for a patient to receive a hospice bed in the Calgary Zone is [more than] 1 [year]," which 76% correctly described as false, and "Noncancer patients are eligible for hospice care," which 88% correctly described as true.

Physician age and duration of practice were not associated with answering the knowledge questions correctly. Physicians with a special area of interest or subspecialty were more likely to know the number of hospices in Calgary

Table 1. Demographic characteristics of respondents: *N = 104; demographic data were available for 103 respondents.*

CHARACTERISTICS	N (%)
Age, y	
• < 30	9 (9)
• 30-40	30 (29)
• 41-50	33 (32)
• 51-60	20 (19)
• > 60	11 (11)
Type of practice	
• Family medicine, general	56 (54)
• Family medicine with special interest	42 (41)
• Subspecialty with family medicine	5 (5)
Years in practice	
• ≤ 5	23 (22)
• 6-10	20 (19)
• 11-15	12 (12)
• 16-20	9 (9)
• > 20	39 (38)
Interest in palliative medicine	
• Special interest in palliative care	26 (25)
• Previous discussions with patients about palliative or hospice care	90 (87)

Table 2. Physicians' background knowledge and beliefs about hospice and palliative care

KNOWLEDGE OR BELIEF	CORRECT ANSWER, N (%)	INCORRECT ANSWER OR UNSURE, N (%)	χ_1^{2*}	*P* VALUE
There are 3 hospices in Calgary currently [False]	37 (36)	67 (64)	8.654	.003
A patient should be given a prognosis of ≤ 6 mo to be eligible for hospice care [False]	41 (39)	63 (61)	4.654	.031
The current wait time for a patient to receive a hospice bed in the Calgary Zone is > 1 y [False]	79 (76)	25 (24)	28.038	< .001
Noncancer patients are eligible for hospice care [True]	91 (88)	13 (12)	58.500	< .001
Patients living in the Calgary Zone can self-refer to a Calgary hospice [False]	15 (14)	89 (86)	52.654	< .001
Patients are randomly assigned to a hospice depending on bed availability [False][†]	44 (42)	59 (57)	2.184	.139

*Goodness-of-fit test for equal proportions.
[†]One person did not answer this question.

and hospice eligibility criteria. Furthermore, physicians with a special interest in palliative medicine were at least twice as likely to correctly answer the knowledge questions. The ORs for the significant associations are shown in **Table 3**.

Physicians' attitudes toward and experiences with hospice and palliative care

Age. General trends in age differences indicate that older physicians seem more likely to have made a referral to a hospice ($\chi^2_4 = 11.819$, $P = .019$), but this association was determined to be not statistically significant by logistic regression. Older physicians also do not appear to be more comfortable with hospice referral or more familiar with the referral process and contact personnel.

Years in practice. More experienced physicians, especially those with 15 or more years of practice experience, tended to be more comfortable discussing hospice care with patients ($\chi^2_4 = 8.606$, $P = .072$), had made more referrals to hospice care in the past ($\chi^2_4 = 8.825$, $P = .066$), and were less likely to defer hospice referral owing to their personal discomfort ($\chi^2_4 = 15.615$, $P = .004$) (**Table 4**). However, these associations failed to be confirmed as significant during logistic regression analyses and the ORs are not reported.

Type of practice. Family physicians with special areas of interest and those who were exclusively subspecialists in one field within family medicine showed a higher comfort level discussing hospice or palliative care with patients ($\chi^2_2 = 7.039$, $P = .030$), felt well-informed to discuss the topic of hospice referrals ($\chi^2_2 = 8.188$, $P = .017$), were more familiar with patient eligibility for hospice care ($\chi^2_2 = 10.718$, $P = .006$), and were less likely to defer any discussions on hospice referral ($\chi^2_2 = 7.547$, $P = .023$) (**Table 5**). Logistic regression modeling found that family physicians with special areas of interest and those who were subspecialists were about 3 and 10 times, respectively, more likely than general family physicians to be familiar with patient eligibility for hospice care (**Table 6**).

Table 3. Factors associated with knowledge or beliefs about hospice care in Calgary

KNOWLEDGE OR BELIEF	FACTOR	LEVEL	N	OR (95% CI)	MODEL *P* VALUE
There are 3 hospices in Calgary currently [False]	• Type of practice	• Family medicine, general	56	Reference*	.001
		• Family medicine with special interest	42	4.5 (1.8-11.0)	
		• Subspecialty within family medicine	5	16.4 (1.7-161.3)	
	• Special interest in palliative medicine	• No	76	Reference	< .001
		• Yes	26	9.4 (3.4-26.1)	
A patient should be given a prognosis ≤ 6 mo to be eligible for hospice care [False]	• Type of practice	• Family medicine, general	56	Reference	.012
		• Family medicine with special interest	42	3.6 (1.6-8.5)	
		• Subspecialty within family medicine	5	1.8 (0.3-12.0)	
	• Special interest in palliative medicine	• No	76	Reference	.028
		• Yes	26	2.7 (1.1-6.9)	
The current wait time for a patient to receive a hospice bed in the Calgary Zone is > 1 y [False]	• Special interest in palliative medicine	• No	76	Reference	.034
		• Yes	26	5.2 (1.1-23.9)	
Patients living in the Calgary zone can self-refer to a Calgary hospice [False]	• Special interest in palliative medicine	• No	76	Reference	.001
		• Yes	26	7.5 (2.2-25.3)	
Patients are randomly assigned to a hospice depending on bed availability [False]	• Special interest in palliative medicine	• No	75	Reference	.006
		• Yes	26	3.8 (1.5-9.7)	

OR—odds ratio.

*In logistic regression, one level of the independent variable serves as a reference against which the odds of the other levels occurring are determined. For example, in this instance, the odds of knowing the correct answer that there are not only 3 hospices in Calgary are 4.5 greater for those family physicians with a special interest than for those in family medicine general practice.

Table 4. Physicians' attitudes about and experiences with hospice care by years in practice

RATING OF ATTITUDE OR EXPERIENCE	YEARS IN PRACTICE, N (%)						KRUSKAL–WALLIS TEST	
	≤5	6–10	11–15	16–20	>20	TOTAL	χ^2_4	*P* VALUE
Comfortable discussing hospice and palliative care with patients							8.606	.072
• Strongly agree	4 (17)	9 (45)	6 (50)	3 (33)	20 (51)	42 (41)		
• Agree	12 (52)	5 (25)	4 (33)	4 (44)	15 (38)	40 (39)		
• Neutral	3 (13)	4 (20)	2 (17)	0 (0)	3 (8)	12 (12)		
• Disagree	4 (17)	2 (10)	0 (0)	2 (22)	0 (0)	8 (8)		
• Strongly disagree	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	1 (1)		
• Total	23 (100)	20 (100)	12 (100)	9 (100)	39 (100)	103 (100)		
Deferred discussing hospice referral in the past owing to discomfort							15.615	.004
• Agree	3 (13)	0 (0)	0 (0)	1 (11)	1 (3)	5 (5)		
• Neutral	6 (26)	2 (10)	1 (9)	2 (22)	4 (10)	15 (15)		
• Disagree	11 (48)	12 (60)	5 (45)	4 (44)	12 (31)	44 (43)		
• Strongly disagree	3 (13)	6 (30)	5 (45)	2 (22)	22 (56)	38 (37)		
• Total	23 (100)	20 (100)	11 (100)	9 (100)	39 (100)	102 (100)		
Made a referral to a hospice in the past							8.825	.066
• Strongly agree	8 (35)	11 (55)	7 (58)	6 (67)	31 (79)	63 (61)		
• Agree	15 (65)	8 (40)	5 (42)	2 (22)	4 (10)	34 (33)		
• Neutral	0 (0)	1 (5)	0 (0)	1 (11)	4 (10)	6 (6)		
• Total	23 (100)	20 (100)	12 (100)	9 (100)	39 (100)	103 (100)		
Palliative care enhances quality of life for patients and families							4.198	.380
• Strongly agree	19 (83)	15 (79)	11 (92)	9 (100)	36 (92)	90 (88)		
• Agree	4 (17)	4 (21)	1 (8)	0 (0)	3 (8)	12 (12)		
• Total	23 (100)	19 (100)	12 (100)	9 (100)	39 (100)	102 (100)		
Feels well-informed to discuss hospice referrals with patients							2.694	.610
• Strongly agree	3 (13)	7 (35)	3 (25)	1 (11)	9 (23)	23 (22)		
• Agree	8 (35)	4 (20)	2 (17)	5 (56)	16 (41)	35 (34)		
• Neutral	5 (22)	3 (15)	3 (25)	0 (0)	8 (21)	19 (18)		
• Disagree	7 (30)	6 (30)	3 (25)	3 (33)	6 (15)	25 (24)		
• Strongly disagree	0 (0)	0 (0)	1 (8)	0 (0)	0 (0)	1 (1)		
• Total	23 (100)	20 (100)	12 (100)	9 (100)	39 (100)	103 (100)		
Familiar with patient eligibility for hospice care in the Calgary Zone							0.521	.971
• Strongly agree	3 (13)	5 (25)	2 (17)	1 (11)	4 (10)	15 (15)		
• Agree	4 (17)	5 (25)	1 (8)	1 (11)	15 (38)	26 (25)		
• Neutral	8 (35)	0 (0)	5 (42)	4 (44)	7 (18)	24 (23)		
• Disagree	8 (35)	9 (45)	4 (33)	3 (33)	12 (31)	36 (35)		
• Strongly disagree	0 (0)	1 (5)	0 (0)	0 (0)	1 (3)	2 (2)		
• Total	23 (100)	20 (100)	12 (100)	9 (100)	39 (100)	103 (100)		

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Table 4 *continued from page e489*

RATING OF ATTITUDE OR EXPERIENCE	YEARS IN PRACTICE, N (%)						KRUSKAL-WALLIS TEST	
	≤ 5	6–10	11–15	16–20	> 20	TOTAL	χ^2_4	*P* VALUE
Familiar with services provided by the palliative home care program of Alberta Health Services							10.848	.028
• Strongly agree	2 (9)	6 (30)	2 (18)	1 (11)	10 (26)	21 (21)		
• Agree	9 (39)	6 (30)	5 (45)	2 (22)	23 (59)	45 (44)		
• Neutral	8 (35)	3 (15)	3 (27)	3 (33)	4 (10)	21 (21)		
• Disagree	4 (17)	5 (25)	1 (9)	3 (33)	1 (3)	14 (14)		
• Strongly disagree	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	1 (1)		
• Total	23 (100)	20 (100)	11 (100)	9 (100)	39 (100)	102 (100)		
Familiar with the referral process and contact personnel							3.644	.456
• Strongly agree	2 (9)	5 (26)	1 (8)	1 (11)	4 (10)	13 (13)		
• Agree	3 (13)	5 (26)	4 (33)	2 (22)	15 (38)	29 (28)		
• Neutral	6 (26)	2 (11)	2 (17)	2 (22)	9 (23)	21 (21)		
• Disagree	12 (52)	5 (26)	5 (42)	4 (44)	9 (23)	35 (34)		
• Strongly disagree	0 (0)	2 (11)	0 (0)	0 (0)	2 (5)	4 (4)		
• Total	23 (100)	19 (100)	12 (100)	9 (100)	39 (100)	102 (100)		

Interest in palliative medicine. Physicians who expressed special interest in palliative medicine were less likely to defer any discussions on hospice referral (OR = 0.1, 95% CI 0.2 to 0.9). They were also more likely to feel well-informed about hospice referrals (OR = 6.4, 95% CI 2.0 to 20.5), and to be more familiar with patient eligibility (OR = 9.3, 95% CI 3.3 to 26.6), the referral process and contacts (OR = 6.5, 95% CI 2.4 to 17.8), and services provided by the palliative home care program (OR = 10.0, 95% CI 2.2 to 45.2) (**Table 6**).

Open-ended responses

Responses to open-ended questions are presented in **Table 7**.

What do you do for your patient if the wait for hospice referral is too long? The 104 respondents provided 122 responses to this question and generated 7 themes. The most common response (n = 38) was to consider home care for their patients. Subsequent themes were seeking a consultation with a palliative care physician (n = 31), managing their patients themselves while they wait (n = 12), sending patients to the hospital (n = 16), and providing home visits (n = 11). Thirteen physicians indicated that they had no experience of having to wait for a hospice referral. One physician considered private care.

How does interacting with the patient's family factor into your decision to refer to hospice care? For this question, the respondents generated 100 answers and 6 themes. Thirty-one respondents indicated that caregiver issues such as coping skills and family resources factored into their decision to make a hospice care referral. Subsequent themes were family wishes (n = 23), patient preferences (n = 20), families' acceptance of a palliative approach (n = 18), family preference for location of the hospice (n = 5), and families' cultural backgrounds (n = 3).

What obstacles have you encountered in making patient referrals to hospice care? This question generated 84 responses and 8 themes. Thirty-six respondents claimed to not encounter any obstacles. Subsequent themes were uncertainty and lack of knowledge about the process of making a referral (n = 16), bureaucracy and disengagement of physicians (n = 13), family members' expectations and perceptions of palliative care (n = 6), lack of availability of a hospice bed (n = 5), patient medical issues (n = 4), and patients who were not accepting of hospice care (n = 3). One respondent listed understaffing of the palliative team as an obstacle.

DISCUSSION

Most physicians (88%) strongly agree that hospice care enhances quality of life for patients and families. However, of the 6 knowledge questions asked, only 2 were answered correctly by more than half of respondents.

Table 5. Physicians' attitudes about and experiences with hospice care by type of practice

	TYPE OF PRACTICE, N (%)				KRUSKAL-WALLIS TEST	
RATING OF ATTITUDE OR EXPERIENCE	FAMILY MEDICINE, GENERAL	FAMILY MEDICINE WITH SPECIAL INTEREST	SUBSPECIALTY WITHIN FAMILY MEDICINE	TOTAL	χ^2_2	*P* VALUE
Comfortable discussing hospice and palliative care with patients					7.039	.030
• Strongly agree	18 (32)	18 (43)	5 (100)	41 (40)		
• Agree	26 (46)	15 (36)	0 (0)	41 (40)		
• Neutral	7 (12)	5 (12)	0 (0)	12 (12)		
• Disagree	5 (9)	3 (7)	0 (0)	8 (8)		
• Strongly disagree	0 (0)	1 (2)	0 (0)	1 (1)		
• Total	56 (100)	42 (100)	5 (100)	103 (100)		
Deferred discussing hospice referral in the past owing to discomfort					7.547	.023
• Agree	2 (4)	4 (10)	0 (0)	6 (6)		
• Neutral	9 (16)	6 (14)	0 (0)	15 (15)		
• Disagree	24 (44)	19 (45)	0 (0)	43 (42)		
• Strongly disagree	20 (36)	13 (31)	5 (100)	38 (37)		
• Total	55 (100)	42 (100)	5 (100)	102 (100)		
Made a referral to a hospice in the past					0.410	.815
• Strongly agree	34 (61)	25 (60)	4 (80)	63 (61)		
• Agree	21 (38)	14 (33)	0 (0)	35 (34)		
• Neutral	1 (2)	3 (7)	1 (20)	5 (5)		
• Total	56 (100)	42 (100)	5 (100)	103 (100)		
Palliative care enhances quality of life for patients and families					0.488	.783
• Strongly agree	49 (89)	36 (86)	4 (80)	89 (87)		
• Agree	6 (11)	6 (14)	1 (20)	13 (13)		
• Total	55 (100)	42 (100)	5 (100)	102 (100)		
Feels well-informed to discuss hospice referrals with patients					8.188	.017
• Strongly agree	9 (16)	10 (24)	4 (80)	23 (22)		
• Agree	20 (36)	15 (36)	1 (20)	36 (35)		
• Neutral	12 (21)	7 (17)	0 (0)	19 (18)		
• Disagree	14 (25)	10 (24)	0 (0)	24 (23)		
• Strongly disagree	1 (2)	0 (0)	0 (0)	1 (1)		
• Total	56 (100)	42 (100)	5 (100)	103 (100)		
Familiar with patient eligibility for hospice care in Calgary Zone					10.718	.006
• Strongly agree	3 (5)	9 (21)	3 (60)	15 (15)		
• Agree	13 (23)	13 (31)	1 (20)	27 (26)		
• Neutral	15 (27)	9 (21)	0 (0)	24 (23)		
• Disagree	24 (43)	10 (24)	1 (20)	35 (34)		
• Strongly disagree	1 (2)	1 (2)	0 (0)	2 (2)		
• Total	56 (100)	42 (100)	5 (100)	103 (100)		

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Table 5 *continued from page e491*

RATING OF ATTITUDE OR EXPERIENCE	TYPE OF PRACTICE, N (%)				KRUSKAL-WALLIS TEST	
	FAMILY MEDICINE, GENERAL	FAMILY MEDICINE WITH SPECIAL INTEREST	SUBSPECIALTY WITHIN FAMILY MEDICINE	TOTAL	χ^2_2	*P* VALUE
Familiar with services provided by the palliative home care program of Alberta Health Services					1.335	.513
• Strongly agree	12 (22)	8 (19)	1 (20)	21 (21)		
• Agree	21 (38)	20 (48)	4 (20)	45 (44)		
• Neutral	15 (27)	6 (14)	0 (0)	21 (21)		
• Disagree	7 (13)	7 (17)	0 (0)	14 (14)		
• Strongly disagree	0 (0)	1 (2)	0 (0)	1 (1)		
• Total	55 (100)	42 (100)	5 (100)	102 (100)		
Familiar with the referral process and contact personnel					1.799	.407
• Strongly agree	4 (7)	8 (20)	1 (20)	13 (13)		
• Agree	15 (27)	14 (34)	1 (20)	30 (29)		
• Neutral	16 (29)	5 (12)	0 (0)	21 (21)		
• Disagree	20 (36)	11 (27)	3 (60)	34 (33)		
• Strongly disagree	1 (2)	3 (7)	0 (0)	4 (4)		
• Total	56 (100)	41 (100)	5 (100)	102 (100)		

Table 6. Factors associated with attitudes or experiences about hospice care in the Calgary Zone

ATTITUDE OR EXPERIENCE	FACTOR	LEVEL	N	OR (95% CI)	MODEL *P* VALUE
Familiar with patient eligibility for hospice care in Calgary	• Type of practice	• Family medicine, general	56	Reference*	.017
		• Family medicine with special interest	42	2.8 (1.2-6.4)	
		• Subspecialty within family medicine	5	10.0 (1.0-96.5)	
	• Special interest in palliative medicine	• No	76	Reference	< .001
		• Yes	26	9.3 (3.3-26.6)	
Feels well-informed to discuss hospice referrals with patients	• Special interest in palliative medicine	• No	76	Reference	.002
		• Yes	26	6.4 (2.0-20.5)	
Familiar with services provided by the palliative home care program of Alberta Health Services	• Special interest in palliative medicine	• No	75	Reference	.003
		• Yes	26	10.0 (2.2-45.2)	
	• Previous discussions with patients on hospice care	• No	13	Reference	.002
		• Yes	89	8.5 (2.2-33.6)	
Familiar with the referral process and contact personnel	• Special interest in palliative medicine	• No	75	Reference	< .001
		• Yes	26	6.5 (2.4-17.8)	
Deferred discussing hospice referral in the past owing to discomfort	• Special interest in palliative medicine	• No	75	8.5 (1.1-66.9)	.042
		• Yes	26	Reference	

OR—odds ratio.

*In logistic regression, one level of the independent variable serves as a reference against which the odds of the other levels occurring are determined. For example, in this instance, the odds of agreeing (as opposed to disagreeing) that the respondent is "familiar with patient eligibility for hospice care in Calgary" are 2.8 greater for those family physicians with a special interest than for those in family medicine general practice.

In particular, the physicians struggled with knowing whether patients could self-refer to a Calgary hospice (they cannot), how many hospices there are in Calgary (there are 6 hospices), and the prognosis criteria for eligibility (less than 3 months). Family physicians who were interested in palliative medicine were more likely than other family doctors to know the correct information about hospice care referral processes and related services.

Most physicians seemed comfortable with discussions about hospice care and would not defer discussions owing to personal discomfort. However, when asked about discussing the process of hospice referrals, only 57% of respondents indicated they feel well-informed to do so,

and only 41% responded they were familiar with patient eligibility for hospices in the Calgary Zone. These issues might affect practice—some physicians identified that they would send a palliative patient who is quickly deteriorating to the emergency department for more care, particularly in hopes of quicker access to a hospice. Earlier discussions about hospice care might reduce the physical and emotional stress of patients and family members.

Older and more experienced physicians expressed higher comfort levels with discussing hospice and palliative care with patients. They were also more likely to have made a referral to a hospice in the past.

Because family physicians with a special interest in palliative medicine tended to be more aware of current information and resources about hospice care in Calgary, they were more likely than other family physicians to be knowledgeable about hospice care, the referral process, and other services. They were more inclined to have earlier palliative care discussions for patients nearing the end of life and had greater comfort levels with these discussions.

The evidence suggests that the barriers to hospice care might be multifactorial—the hospice itself, the health care system, and health care providers. This study identifies the main barrier to hospice referrals as a lack of information about the referral process. Other issues include the disengagement of family physicians from the referral process and the discomfort of patients and family members with hospice care. While some respondents did indicate the lack of hospice bed availability as an obstacle, respondents did not cite an overall lack of hospice capacity or other financial factors. It might be that approximately 100 hospice beds are sufficient to meet the needs of Calgary's population of 1 million people. Also, Calgary's hospices do not charge per diem costs to their patients because the cost of care is covered by the provincial government and supplemented with private fundraising.

Ironically, while the existence of a well-resourced consultation team, palliative home care, and a hospice care program has improved access to expert palliative care assistance, it might also have reduced family physician engagement in the hospice referral process. Additionally, there might be a lack of experience with hospice care among family physicians, as dedicated hospice physicians now usually assume this role. Hospice medical directors and other palliative care physicians must be vigilant in maintaining close contact with referring family physicians to ensure ongoing engagement. Efforts to improve and support shared care models for palliative patients have been described previously. Marshall and her team demonstrated successes in providing palliative care in the home using a shared care model in the Canadian context.[10] DeMiglio and Williams describe a number of themes that factor into the effective shared care of palliative patients.[12] Shared care models such as these might improve family physicians' knowledge of, comfort with, and continuity in palliative care for their patients at the end of life.

Table 7. Content analysis of qualitative data

CODES	N (%)
Question 4: What do you do for your patient if the wait for hospice referral is too long?	
• Palliative home care or nursing	38 (31)
• Palliative physician consultation	31 (25)
• Family physician manages while patient waits	12 (10)
• Emergency department, hospital, or palliative care unit	16 (13)
• Home visits	11 (9)
• No experience	13 (11)
• Private care	1 (1)
• Total	122 (100)
Question 10: How does interacting with the patient's family factor into your decision to refer to hospice care?	
• Location of hospice*	5 (5)
• Caregiver issue†	31 (31)
• Palliative approach‡	18 (18)
• Family wishes and concerns	23 (23)
• Patient preferences	20 (20)
• Cultural background	3 (3)
• Total	100 (100)
Question 18: What obstacles have you encountered in making patient referrals to hospice care?	
• None or home care takes care of it§	36 (43)
• Lack of bed availability	5 (6)
• Family perception or issues or family is not ready	6 (7)
• Physician uncertainty, lack of knowledge, or unaware of process	16 (19)
• Patient medical issues	4 (5)
• Patient not accepting	3 (4)
• Bureaucracy, disengagement, or lack of involvement	13 (15)
• Understaffed palliative team	1 (1)
• Total	84 (100)

*Responses describing families' input on choice of hospice site.
†Responses considering issues of family burnout, coping, ability to provide care at home, etc.
‡Responses describing families' acceptance of a palliative or hospice approach to care.
§The respondent indicated that he or she encounters no problems in making patient referrals to hospice care.

Limitations

A limitation of this study is that only physicians interested in hospice care might have responded to the survey, as suggested by the relatively small (26%) mail-back response rate. This could have potential implications on the generalizability of our results.

Conclusion

Family physicians are important advocates for patients, especially those at the end of life, so efforts toward promoting strong relationships, informing family physicians about hospice referral processes, and promoting continuity of care for palliative patients will ensure better physician engagement in the process.

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Contributors

All authors contributed to the concept and design of the study; data gathering, analysis, and interpretation; and preparing the manuscript for submission.

Competing interests

None declared

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