

Perspectives on palliative care in Lebanon: Knowledge, attitudes, and practices of medical and nursing specialties

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ABSTRACT

Objective: Our objective was to determine the knowledge, attitudes, and practices of physicians and nurses on Palliative Care (PC) in Lebanon, across specialties.

Method: We performed a cross-sectional descriptive survey using a self-administered questionnaire; the total number of completed and returned questionnaires was 868, giving a 23% response rate, including 74.31% nurses (645) and 25.69% physicians (223).

Results: Significant differences were found between medical and surgical nurses and physicians concerning their perceptions of patients' and families' outbursts, concerns, and questions. Knowledge scores were statistically associated with practice scores and degree. Practice scores were positively associated with continuing education in PC, exposure to terminally ill patients, and knowledge and attitude scores. Acute critical care and oncology were found to have lower practice scores than other specialties.

Significance of results: Formal education in palliative care and development of palliative care services are very much needed in Lebanon to provide holistic care to terminally ill patients.

KEYWORDS: Palliative care, Physicians, Nurses, Knowledge, attitudes, Practices, Lebanon

INTRODUCTION

Palliative care (PC) is defined by the World Health Organization (WHO) as “an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychological and spiritual” (WHO, 2006).

In Lebanon, PC is new to the health care field. It was first introduced by the WHO National Cancer Control Workshop in 1995 and later by the Middle East Oncology Congress in 1999 (Abu-Saad & Daher, 2005). Despite the interest in this field, little is known about the knowledge, attitudes, and practices

(KAP) of nurses and physicians working in different specialties in Lebanon.

Several studies were conducted to evaluate KAP of physicians and nurses working in different specialties in PC. Miccinesi et al. (2005) conducted a study in six European countries and Australia on physicians' attitudes toward end-of-life decisions. Physicians from 10 different specialties were involved in this study. In all countries, oncologists and geriatricians had the lowest score for use of “lethal drugs” and the highest score for preserving life; anesthesiologists had the lowest score for preserving life.

Hanratty et al. (2006) reported that cardiologists in England believed that dealing with the death of their patients meant dealing with their failure. In Australia, Wotton et al. (2005) found the level of nurses' knowledge in patients with end stage heart failure to be influenced by specialty; PC nurses believed cardiac pharmacology should be decreased in end

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stage heart failure, whereas acute care nurses considered it better to have both PC and cardiac therapy.

In Lebanon, in a study by Yazigi et al. (2005) on withholding and withdrawal of life-sustaining treatment in an ICU, the nursing staff was not involved in the decisions to limit care in 26% of terminally ill patients and families in 21% of the cases. In addition, decisions regarding withholding and withdrawal of life-sustaining treatments were not recorded in the medical chart of the patient in 23% of the cases, most likely secondary to lack of legal guidelines. Similar results were reported in other studies regarding ICU physicians and nurses (Thibault-Prevost et al., 2000; Mosenthal et al., 2002; Ferrand et al., 2003; Boyle et al., 2005; Yazigi et al., 2005; Levy & McBride, 2006; Mosenthal & Murphy, 2006).

A number of studies in oncology (Hilden et al., 2001; White et al., 2001; Cherny & Catane, 2003; Wang et al., 2004; Steginga et al., 2005; Morita et al., 2006) addressed the self-assessment level of competence in dealing with dying patients; some nurses and physicians felt competent dealing with physical symptoms and less competent with psychological symptoms. Discrepancies were found between physicians and nurses regarding informing patients and their families about diagnosis and prognosis and involving them in the decision-making process. Pediatric nurses working with dying children reported being most competent with pain management and least competent in talking with children and their families (Feudtner et al., 2007).

Pediatric residents showed a strong interest in PC education mainly in pain control, discussing prognosis, delivering bad news, and including children in discussions about end-of-life care (Kolarik et al., 2006).

Pan et al. (2005) found 70% of geriatric fellows to have had PC courses and rotations during their fellowship. Almost all fellows considered it the physician's responsibility to assist patients in facing the end of life and preparing them for death. Nurses working in long-term-care facilities were found to lack knowledge in PC; they needed information on pain and symptom management in addition to information on the philosophy and principles of PC (Raudonis et al., 2002).

In Lebanon, no PC studies have been conducted to assess KAP of nurses and physicians. The purpose of this study is to determine PC knowledge, attitudes, and practices among physicians and nurses from different specialties.

The following research questions were addressed:

1. How do physicians and nurses from different specialties differ in their knowledge of PC?
2. What are the attitudes of physicians and nurses from different specialties toward PC?
3. Do physicians and nurses provide PC for terminally ill patients, and how does provision of PC differ by specialty?

METHODS

Design, Sample, and Setting

A cross-sectional descriptive survey was taken that used a self-administered questionnaire.

The target population was nurses and physicians currently working in hospitals in Lebanon. Participants were chosen from 15 hospitals geographically spread in Lebanon, 4 of which are academic hospitals located in Beirut, the capital. A contact person was designated per hospital to distribute and collect questionnaires. This was done in close collaboration with the syndicate of private hospitals in Lebanon.

Institutional Review Board approval was granted by all hospitals.

Data Collection Procedures

The sample size determination was based on a power of 80%, alpha of 5%, and a precision (effect size) of 3%, with a baseline proportion of .5 (used when the proportion is not known). The calculated sample size was 1,056, but to account for nonresponse rates, all nurses and physicians in the selected hospitals were included in the study. A total of 3,757 (1,873 nurses and 1,884 physicians) questionnaires were sent between November 2005 and January 2006 with a cover letter written by the first author describing the goals of the study, name of the contact person, and a time frame of 2 weeks for returning the questionnaire. A reminder was sent after 2 weeks and deadline extended to 2 months due to the low response rate.

Questionnaire

The questionnaire, designed especially for this study, was developed based on a review of the literature and information gained from a qualitative study conducted by the principal investigator. Content validity and appropriateness for use in Lebanon was established by a team of experts. It was pilot tested for feasibility and clarity.

Because the educational background of nurses and physicians in Lebanon is either English or French, the questionnaire was developed in both languages. It includes six sections: general information on specialty area; perceptions and knowledge; attitudes, practice, and needs assessment for PC services, and

two open-ended questions on the best model for delivering PC and general comments.

Statistical Analysis

General characteristics were reported using means and standard deviations for numerical variables such as age and years of experience. Categorical variables, such as specialty and gender, were reported using frequencies and percentages. Physicians and nurses were compared by specialties using analyses of variance (ANOVA), chi-square, and the Fisher exact test when appropriate. Knowledge score (KS; 16 items), attitude score (AS; 19 items), and practice score (PS; 41 items) were created by summing the items within each domain; possible scores ranged from 0 to 16 on the KS (actual scores ranged from 6 to 16), from 19 to 95 on the AS (actual scores ranged from 59 to 90), and from 41 to 205 on the PS (actual scores ranged from 113 to 201). A two-way ANOVA was used to test differences in the computed scores among specialty, degree, and their interaction. The scores were used in three separate regression models. The following variables were considered as possible confounders, and thus were kept in the model regardless of significance: gender, degree, years of experience, exposure to terminally ill patients, and receiving continuing education (CE) in PC. Specialty was entered in the model as five dummy variables with medical specialty as the reference. Interactions between specialty and degree were tested, and, if they were not significant, they were removed. The model fit was assessed using the R^2 . The data were analyzed using SPSS 15, and all tests were carried out at the .05 significance level.

RESULTS

The total number of completed and returned questionnaires was 1,205, resulting in a 32% response rate (51% for nurses and 12.7% for physicians); however, the number of questionnaires considered eligible for analysis in this study was 868, giving a 23% response rate; 74.31% nurses (645) and 25.69% physicians (223). Eligible participants for this study were nurses and physicians specialized in the six clinical specialties included in this study: medical, surgical, pediatrics, acute critical care, oncology, and obstetric/gynecology.

Table 1 displays the general characteristics of respondents by specialty. Specialty was found to be significantly associated with all the background variables measured with the exception of age and years of experience. These two variables were not different among doctors of different specialties ($p = .879$ and $.678$, respectively) but were for nurses ($p = .000$ for

both). The majority of nurses (23.2%) reported working in acute critical care and the majority of physicians (36.1%) in surgery. More than 80% of nurses and physicians had been exposed to terminally ill patients, except for obstetric/gynecology nurses (38.6%). Significant differences were found among specialties in term of receiving continuing education in PC.

Statistically significant differences were found in attitudes and practice levels among the different specialties in general (Figure 1). The majority of specialties answered the knowledge questions correctly across specialties. Likewise, the majority of respondents answered the attitude and practice items along with the standards of PC across specialties and degree.

About 20.0% to 25.0% of physicians reported that they tell their terminally ill patients about their diagnosis across specialties with the exception of oncology, where this practice was only reported by 8.3% of physicians.

There were a number of items where physicians and nurses of the same specialty differed significantly in their response profile. These are summarized and presented in Tables 2–5. In general, more nurses than physicians in the medical and surgical specialties perceived the patient's and family's outbursts and questions negatively. Furthermore, physicians of these specialties were more likely than nurses to report "DNR as a right" (Tables 2 and 3).

Same religious belief was reported to enhance the caring process among medical, surgical, and oncology nurses more so than their physician counterparts (Tables 2 and 3). More nurses than physicians in the medical and oncology specialties considered PC as a practice that destroys hope and leads to despair and depression (Tables 2 and 4). Obstetric/gynecology and pediatric nurses and physicians were found to have a different preference for the place of death. Oncology and pediatric nurses were more likely than doctors of the same specialty to report taking the patients' spiritual/religious background into consideration when delivering the care (Table 4).

At the multivariate level (Table 5), the KS was found to be statistically associated with the PS and degree (physicians vs. nurses). For every unit increase in the PS, the KS was found to increase by 0.03. Physicians were found to have, on average, a 1.02-point higher KS in PC than nurses. There were no statistically significant differences among the specialties. This model explained only 12.5% of the variability in KS. The AS model explained about 26.6% of the variability in AS, depicting a better fit. Higher scores on practice were associated with

Table 1. Characteristics of physicians and nurses by specialty ($N = 868$)

	Specialty						P value
	Medical ($n = 182, 20.9\%$)	Surgical ($n = 207, 23.8\%$)	ACC ($n = 223, 25.7\%$)	Obgyn ($n = 66, 7.7\%$)	Pediatrics ($n = 123, 14.2\%$)	Oncology ($n = 67, 7.7\%$)	
Degree: N (%)							
MDs	70 (30.0)	84 (36.1)	10 (4.3)	19 (8.2)	27 (11.6)	13 (5.6)	
RNs	112 (12.2)	123 (13.4)	213 (23.2)	47 (5.1)	96 (10.4)	54 (5.9)	.000
Gender: N (%)							
MDs							
Male	48 (68.6)	75 (89.3)	9 (90.0)	18 (94.7)	16 (59.3)	13 (100.0)	
Female	22 (31.4)	9 (10.7)	1 (10.0)	1 (5.3)	11 (40.7)	0 (.0)	.000
RNs							
Male	30 (26.8)	23 (18.7)	68 (31.9)	0 (.0)	0 (.0)	8 (14.8)	
Female	82 (73.2)	100 (81.3)	145 (68.1)	47 (100.0)	96 (100.0)	46 (85.2)	.000
Age: mean (SD)							
MDs	48.11 (13.28)	47.17 (11.63)	46.00 (13.09)	47.10 (5.55)	49.96 (12.75)	47.23 (11.29)	.879
RNs	30.08 (8.47)	34.37 (9.21)	29.53 (7.14)	33.33 (9.81)	29.08 (7.2)	27.36 (6.11)	.000
Years of experience: mean (SD)							
MDs	18.29 (13.88)	16.18 (10.09)	13.86 (11.88)	15.63 (6.90)	19.08 (14.46)	13.75 (7.86)	.678
RNs	8.01 (7.61)	12.07 (8.38)	7.98 (6.83)	10.86 (9.10)	8.01 (7.53)	5.82 (5.88)	.000
Exposed to terminally ill patients: N (%)							
MDs							
Yes	63 (91.3)	74 (90.2)	10 (100.0)	15 (78.9)	21 (77.8)	13 (100.0)	
No	6 (8.7)	8 (9.8)	0 (.0)	4 (21.1)	6 (22.2)	0 (.0)	.025
RNs							
Yes	103 (92.8)	76 (65.5)	174 (82.5)	17 (38.6)	85 (90.4)	52 (98.1)	
No	8 (7.2)	40 (34.5)	37 (17.5)	27 (61.4)	9 (9.6)	1 (1.9)	.000
Received CE in PC: N (%)							
MDs							
Yes	8 (11.6)	16 (19.3)	0 (.0)	0 (.0)	1 (3.7)	3 (23.1)	
No	61 (88.4)	67 (80.7)	10 (100.0)	18 (100.0)	26 (96.3)	10 (76.9)	.064
RNs							
Yes	16 (14.8)	12 (10.0)	32 (15.3)	7 (15.9)	19 (20.2)	16 (31.4)	
No	92 (85.2)	108 (90.0)	177 (84.7)	37 (84.1)	75 (79.8)	35 (68.6)	.000

ACC: acute critical care; Obgyn: obstetrics/gynecology; CE: continuing education.

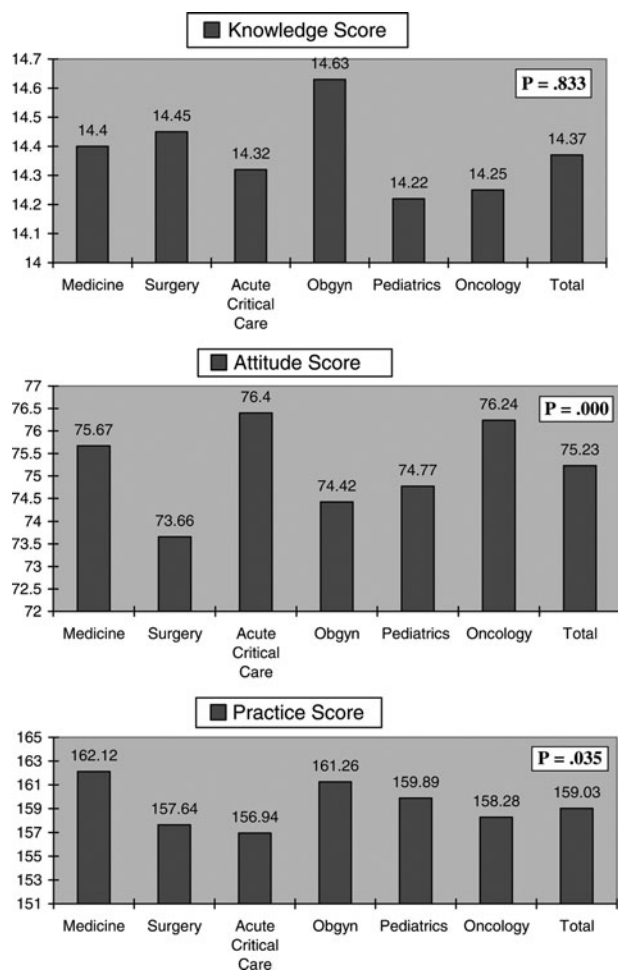


Fig. 1. Comparison of mean knowledge score, attitude score, and practice score between specialties.

higher scores on AS (0.176 increase for every unit increment). Respondents in the acute critical care specialty had, on average, a 1.9-point higher attitude score than other specialties regardless of degree (physicians or nurses). Oncology physicians scored, on average, 3.8 points lower than all other physicians. There were no statistical differences between oncology nurses and other nurses. The PS was found to be positively associated with KS, AS, receiving continuing education, and having been exposed to terminally ill patients, where, for every unit increase in KS, the PS would increase, on average, 1.44 points. Similarly, the PS would increase, on average, 1.0 point with the AS. Those reporting having received continuing education in PC scored, on average, 5.3 points higher than those not reporting. Similarly, those exposed to terminally ill patients had, on average, a PS of 7.6 points higher than those never exposed. Acute critical care and oncology specialties were found to have about 5 points lower on the PS than other specialties (-5.54 and -5.4 , respectively). There was no statistical difference between

physicians and nurses. This model was able to explain 29.9% of the variability in PS.

DISCUSSION

Although only a small percentage of nurses and physicians across specialties were found to have received continuing education in PC, the majority were able to identify correctly the goals, components, and assumptions of PC; however, physicians were found to have, on average, a 1.02-point higher KS than nurses. These results are in line with other studies (Hilden et al., 2001; White et al., 2001; Hanratty et al., 2006) that reported a lack of formal training and education in PC among nurses and physicians who were able to define PC outcomes and who reported that PC was part of their current practice. In this study, 24.4% of oncology nurses believe that PC destroys hope and leads to despair and depression. This finding has not been reported in other studies; it emphasizes the need for PC education in Lebanon, especially in oncology, where nurses are more likely to deal with terminally ill patients.

More medical and surgical nurses than physicians viewed the patient's and family's outbursts, questions, and concerns in a negative manner. These results can be attributed to lack of knowledge and communication skills and to the nurses' inability to deal with emotional outbursts in difficult stressful situations. Although similar results have not been reported elsewhere, in the study by Boyle et al. (2005), intensive care unit nurses and physicians believed good communication among physicians, nurses, patients, and family to be the most important factor in end-of-life care in the intensive care units but found it to be the least accomplished. Similarly, the study by Feudtner et al. (2007) found pediatric nurses to be least competent in talking to patients and family about death, dying, and end-of-life care and the study by Hanratty et al. (2006) also reported negative attitudes of cardiologists when dealing with dying patients. In our study, the majority of acute critical care and pediatric physicians and nurses, however, viewed the patient's and family's outbursts, questions, and concerns as acceptable given the patient's condition. These results affirm the importance of PC knowledge and communication techniques in the educational preparation of nurses and physicians.

We found that a small percentage of physicians actually informed their patients about their diagnosis, especially in oncology, although the majority believed that the patient should be informed. This finding is similar to the results of other studies (Hilden et al., 2001; White et al., 2001; Cherny & Catane, 2003; Wang et al., 2004; Steginga et al., 2005; Morita et al., 2006), where discrepancies were found

Table 2. Knowledge, attitudes, and practices of physicians and nurses, medical specialty^a

	RNs N (%)	MDs N (%)	P value
Knowledge			
To your knowledge, what would be the outcome of PC?			
Prolonged life	24 (26.1)	7 (12.3)	.044
Living with dignity and respect	96 (89.7)	67 (98.5)	.025
To your knowledge PC includes social care	90 (85.7)	64 (98.5)	.006
According to you, PC			
Affirms life and regards dying as a normal process	86 (83.5)	65 (98.5)	.002
Promotes quality of life of patients	90 (81.1)	64 (97.0)	.002
Destroys hope and leads to despair and depression	13 (12.5)	1 (1.5)	.012
Attitudes			
Having same religious belief with patients enhances the caring process	73 (74.5)	30 (49.2)	.001
Practice			
In your current practice you involve the patient in the decision-making process	76 (89.4)	58 (98.3)	.039
You perceive terminally ill patient outburst as Rebellion against the situation	71 (80.7)	52 (92.9)	.044
Unacceptable	14 (17.3)	2 (3.8)	.020
You perceive terminally ill patients' questions and concerns as doubting your professionalism	18 (20.7)	3 (6.5)	.033
You perceive family's questions and concerns as attention-seeking behavior	45 (54.9)	17 (37.0)	.052

^aOnly significant results are reported.

Table 3. Knowledge, attitudes, and practices of physicians and nurses, surgical specialty^a

	RNs N (%)	MDs N (%)	P value
Knowledge			
To your knowledge, what would be the outcome of PC?			
Living with dignity and respect	107 (90.7)	82 (100.0)	.004
To your knowledge PC includes			
Social care	87 (82.9)	78 (92.9)	.04
Physical care	106 (90.6)	83 (98.8)	.015
According to you, PC			
Affirms life and regards dying as a normal process	84 (80.0)	75 (93.8)	.008
Is considered in some countries as a medical specialty	77 (77.8)	73 (90.1)	.027
Attitudes			
Patient should be informed about his or her diagnosis	99 (86.1)	76 (95.0)	.044
Terminally ill patients have the right to choose "do not resuscitate"	64 (62.7)	67 (90.5)	.000
Practice			
Factors taken into consideration when dealing with a terminally ill patient include spiritual/religious background	56 (87.5)	41 (73.2)	.047
You perceive terminally ill patient outburst as			
An attack against you	13 (24.1)	3 (5.7)	.008
Unacceptable	12 (23.5)	2 (3.6)	.003
You perceive terminally ill patients' questions and concerns as			
A threat	25 (43.1)	11 (22.0)	.020
Doubting your professionalism	16 (28.1)	3 (6.1)	.003
You perceive family's questions and concerns as			
A threat	30 (52.6)	16 (32.0)	.031
Doubting your professionalism	10 (20.4)	3 (6.1)	.037

^aOnly significant results are reported.

Table 4. Knowledge, attitudes, and practices of physicians and nurses, oncology and pediatric specialties^a

	RNs N (%)	MDs N (%)	P value
Oncology specialty			
Knowledge			
According to you, PC destroys hope and leads to despair and depression	11 (24.4)	0 (.0)	.048
Attitudes			
Having the same religious belief with patients enhances the caring process	40 (83.3)	6 (50.0)	.015
Practice			
Factors taken into consideration when dealing with a terminally ill patient are			
Cultural background	46 (95.8)	10 (76.9)	.060**
Spiritual/religious background	46 (93.9)	8 (66.7)	.008
Pediatrics specialty			
Attitudes			
The family should be involved in the treatment choice	81 (91.0)	14 (66.7)	.003
It is preferable for the terminally ill patient to die at the hospital	29 (43.3)	12 (70.6)	.044
Practice			
Your current practice with terminally ill is guided by family wishes	58 (93.5)	9 (75.0)	.044
Information communicated to family of terminally ill patients depends on their involvement in decision making	73 (92.4)	7 (63.6)	.004
Factors taken into consideration when dealing with a terminally ill patient include spiritual/religious background	75 (96.2)	13 (81.3)	.059 ^b

^aOnly significant results are reported.

^bFisher's exact test.

between beliefs and attitudes of physicians and nurses regarding informing patient and family about diagnosis and prognosis and what they actually do in practice. In general, social attitudes and the societal prevailing norms regarding communication and truth telling are known to be affected by cultural beliefs and norms. In Lebanon, the patient's family is usually informed first about the diagnosis and prognosis of cancer before communicating with the patient. Family members may keep the diagnosis and prognosis a secret in order to protect the patient from emotional trauma. The attitude of many health care professionals and their approach to communication and truth telling mirrors that of family members (Abu-Saad Huijjer & Dimassi, 2007). These results are in direct contrast with the wishes and needs of Lebanese cancer patients (Doumit et al., 2007) and others (Proot et al., 2004) who preferred to communicate directly with their physicians, emphasizing their right to be told the truth.

A significant number of surgical and obstetric/gynecology nurses, compared to physicians in same specialties, believed that terminally ill patients do not have the right to a do not resuscitate order. This finding is most likely secondary to lack of legal guidelines in Lebanon regarding end-of-life decisions and advance directives and the fact that the majority of Lebanese are very religious and, as such, value the sanctity of life. In addition, surgical and

obstetric/gynecology nurses are not as commonly exposed to terminally ill patients compared to other specialties such as oncology and acute critical care. This finding is in line with the results of the study done in Lebanon on withholding and withdrawing life-sustaining treatment in the intensive care units (Yazigi et al., 2005).

Sharing the same religious belief was found to enhance the caring process among medical, surgical, and oncology specialties, but significantly more among nurses than physicians. This finding highlights the importance of understanding others' religious beliefs when discussing end-of-life care. A total of 17 religious sects are recognized in Lebanon, and, thus, religion plays an important part in the daily lives of most Lebanese. Moreover, our study showed that the majority of nurses and physicians took into consideration the cultural, socioeconomic, and spiritual/religious background of the patient; oncology and pediatric nurses were more likely than physicians of the same specialties to include spiritual/religious background in their care planning process. This is in contrast to results reported in the United States, where primary care physicians considered themselves weak in addressing these aspects in PC (Farber et al., 2004).

At the multivariate level, our results show that better knowledge and attitudes in PC, receiving continuing education in PC, and being exposed to terminally ill patients were positively associated with

Table 5. Regression models

	β (SE)	P-value
Model 1: Outcome variable: knowledge score ($N = 395$)		
Predictor variables		
Gender	-0.295 (0.231)	.204
Degree	-1.267 (0.285)	.000
Years of experience	-0.011 (0.013)	.388
Exposure	-0.092 (0.432)	.831
Continuing education	-0.018 (0.251)	.943
Practice	0.025 (0.007)	.001
Specialty (reference medicine)		
Surgery	-0.034 (0.287)	.905
Acute critical care	0.283 (0.264)	.284
Obstetrics/gynecology	0.106 (0.507)	.835
Pediatrics	0.374 (0.304)	.220
Oncology	0.237 (0.331)	.474
$R^2 = .125$		
Model 2: Outcome variable: attitude score ($N = 431$)		
Gender	-0.757 (0.564)	.180
Degree	-0.058 (0.835)	.945
Years of experience	0.007 (0.031)	.821
Exposure	-0.807 (1.020)	.429
Continuing education	-0.083 (0.612)	.892
Practice	0.188 (0.018)	.000
Specialty (reference medicine)		
Surgery	-3.646 (2.002)	.069
Acute critical care	1.956 (0.689)	.005
Obstetrics/gynecology	-0.674 (1.253)	.591
Pediatrics	-0.043 (0.780)	.956
Oncology	-3.401 (2.375)	.153
Intersection (degree \times specialty)		
Degree \times surgery	1.709 (1.249)	.172
Degree \times oncology	3.804 (1.763)	.032
$R^2 = .266$		
Model 3: Outcome variable: practice score ($N = 330$)		
Gender	-1.187 (1.706)	.487
Degree	-1.847 (2.194)	.401
Years of experience	-0.183 (0.093)	.051
Exposure	7.562 (3.136)	.016
Continuing education	5.276 (1.824)	.004
Knowledge	1.317 (0.407)	.001
Attitude	1.028 (0.126)	.000
Specialty (reference medicine)		
Surgery	-0.742 (1.355)	.585
Acute critical care	-4.782 (1.612)	.003
Obstetrics/gynecology	5.088 (2.289)	.178
Pediatrics	-3.088 (1.777)	.083
Oncology	-4.446 (1.775)	.013
$R^2 = .299$		

better practice in PC. Surprisingly, acute critical care and oncology scored lower on the practice score when compared to other specialties, although these two specialties deal extensively with terminally ill patients. This finding supports the need for formal education and training in PC.

CONCLUSION

The low response rate among physicians is a limitation of this study.

The results of this study underscore the need to develop the field of PC in Lebanon. The education and training of health care professionals becomes, as a result, a must. For quality PC services to be provided, PC should become an integral part of all nursing and medical school curricula and continuing nursing and medical education offerings. Finally, informing the public and empowering patients and families to demand these services will have an impact on policy decisions in this field and on putting PC on the national health agenda in Lebanon.

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