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Primary Care Physicians' Knowledge and Attitude towards Palliative Care. Is it time for integration?

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Abstract:

Purpose: Despite the unquestionable role of the primary care physicians in carrying the majority of high-quality care for patients under palliative care is well-known especially with the senior population, it is still not clear what their existing level of knowledge and attitude to palliative care is. Unfortunately, there is limited research. So, we aimed at detecting the knowledge and attitude of the primary care physicians toward palliative care in Kuwait.

Patients and Methods: A survey using the Palliative Care Attitude and Knowledge questionnaire (PCAK) applied to twenty-five primary care clinics in Kuwait were selected by stratified random sampling method and 284 physicians were included.

Results: The response rate was 79.2%(n=225). The uncertain attitude towards palliative care was reported in 53.3% (n=120) of primary care physicians while only 15(6.7%) had good knowledge. Only 31.2% reported excellent or very good experience in the management of pain and other symptoms respectively. Moreover, unfamiliarity with palliative care services in their community or length and types of coverage under palliative care benefits was reported in 141(62.7%) and 119 (52.9%). Regarding opioid initiation, types, toxicity and its role in refractory dyspnea, and the proper management of catastrophic bleeding, less than 50% responded appropriately. A higher knowledge score was a positive prognosticator for more optimistic attitude scores (OR: 1.088, 95% CI: 1.012-1.170, P-value: 0.023)

Conclusion: The uncertain attitude and poor knowledge were reported in the majority of primary care physicians towards palliative care. Integrating palliative care into primary health care systems has to be initiated as possible to lessen the suffering of those patients and to meet the challenges of the ageing society.

Keywords: Aging, Integration, Kuwait, opioids, Palliative Care, PCAK, Primary Care Physician.

key messages:

- The majority of primary care physicians had poor knowledge and uncertain attitude towards palliative care.
- With the increasing ageing population, the need for palliative care will increase markedly in the next few decades.
- Integration of palliative care into primary care should be started without delay to meet the challenges of the future.
- The development of new models of integrated primary palliative care will greatly allow patients and families to consider their own goals and quality of life throughout a life-threatening illness, not just at the end.

Introduction

Improving the quality of life of patients and their families with a life-threatening illness is the main target of palliative care [1]. Although palliative care services are an effective and feasible alternative to improve their quality of life [2, 3], however, they are still lacking in many countries particularly in the Eastern Mediterranean area [4].

Due to the continued improvement of the health care delivery system, the life expectancy increased to more than 75 years old in many countries [5,6]. With an increasingly ageing population, the need for palliative care will increase markedly in the next few decades. At present, most of the patients receiving palliative care in the US are over the age of 65 [7], and this is expected to double by 2050 [8, 9]. Primary care physicians play a key role in providing palliative care as they are the closest to the community and the easiest to access. They usually build up a close rapport with patients and families as they follow them for years and they are aware of the background of these patients and know the resources available for them [5]. Moreover, they are by far the largest healthcare providers in almost every country [10]. Based on these facts, it is both medically and morally imperative that palliative care should be integrated into primary health care systems [6-10].

The presence of novel models of integrated palliative care into primary care will significantly permit patients and families to tailor their own goals during the trajectory of a life-threatening illness, not just at the end [11]. The awareness of primary care physicians of their needs especially if they didn't request advanced interventions, such as mechanical ventilation or cardiopulmonary resuscitation [12,13] will help them to meet their goals.

So, the study aimed to evaluate the attitude, knowledge and understandings of the primary care physicians in Kuwait to identify the accurate status of the central component of primary health care systems "physicians" and how it is far from or near to proper palliative care integration.

Patients & Methods

Study design and setting:

A national survey was conducted on 284 Primary care physicians working in 25 primary care clinics of the Ministry of Health across Kuwait. More than 1000 primary care physicians are working in more than 100 primary care clinics distributed all over (~106). Kuwait is divided into five health areas (Al-Asema, Hawally, Al-Farawanyia, Al-Jahrah, and Al-Ahmadi) to organize the health delivery system to the whole population according to their residence. Each area has 15-25 primary care clinics. Stratified random sampling was applied to select at least four primary care clinics from each area (~ 25%). 25 out of the total 106 primary care clinics (23.6%) were included in our study. Most physicians from each clinic were included. Excluded physicians were either on leave, refuse to participate or had incomplete data. The flowchart of the sampling procedure was presented in Figure 1.

Assuming the frequency of favourable attitude among primary care physicians from 50-90% [14-16] and good knowledge from 30-60% [15-17] according to the literature review, the sample size was calculated to be 72-86 at 95% confidence interval, type 1 error 0.05 and 0.80 power of the test. It was decided to increase the size of the sample to overcome the non-response.

Measurements and intervention:

Palliative Care Attitude and Knowledge Questionnaire (PCAK) [18]:

It is recently developed for non-palliative physicians toward palliative care and consists of three sections. Section one inquiries about demographic data and palliative care experience. Section two is measuring the attitude using 5 points Likert scale ranging from strongly disagree (1) to strongly agree (5). The third section explores knowledge. It consists of 2 parts; the first part was about the self-reported knowledge using also 5 points Likert scale ranging from none (1) to excellent (5). The second part is 12 clinical questions. Good knowledge was calculated if the participant scored >75% (≥10 points) of the total score (12 points), poor knowledge if the participant scored ≤5 points, and fair knowledge if he got 6 to9 points. The consolidated criteria for reporting observational studies (STROBE) checklist was used.

Results:

Total 284 primary care physicians were selected; the response rate was 79.2% registered in 25 primary care clinics distributed in all five health areas in Kuwait. Fifty-nine primary care physicians were excluded (Figure 1).

Among 225 primary care physicians who completed the questionnaire, 115 (51.1%) were males, 110 (48.89%) were females and the mean age of the respondents was 41.72±10.15 years old. Mean years of experience was 15.62±9.29 years. Due to diversity of population demographics, 18.7% (n=42) were Kuwaiti physicians, 44.9 % (n=101) were Egyptians, 6.2% (n=14) were Syrians, 2.2% (n=5) were Indians and 28% (n=63) represents more than 10 other nationalities. Most of respondents were general practitioners (n=114; 50.7%), followed by family medicine (n=57; 25.3%) then internal medicine (n=25; 11.1%). Moreover, the majority (93.8%, n=211) didn't receive any formal palliative training at any time of their undergraduate, postgraduate or during their previous clinical experience (Table 1).

55 (24.4%) of primary care physicians had a favourable attitude towards palliative care (Table S1, Figure 2). 198 (88%) and 196 (87.1%) of primary care physicians agreed that palliative care benefits included enhanced quality of life for the patient and family (Q9), skilled care for terminally ill patients and expert pain and symptom management (Q10,11) respectively. More than 70% (> 160) of primary care physicians believed that all adults and children who are terminally ill are candidates for palliative care services, not just those with cancer (Q7). On the other hand, 148 (65.8%) primary care physicians emphasized the lack of on-time communication between palliative care providers and themselves (Q2). Moreover, 141(62.7%) of primary care physicians were not familiar with palliative care services in this community (Q3) and most of them (189, 84%) was dissatisfied with PC services (Q1).

Ethical statement:

The approval of the Institutional Review Board (IRB) of the Ministry of Health was obtained before the study (No.321/2017, March 2017). The goal of the study was clarified to each participant and informed consent was taken.

Statistical methods

All data manipulation and analysis were performed using the SPSS (Statistical Package for Social Science) SPSS version 20. Quantitative data were presented in the form of means and SD. Qualitative data was represented in the form of frequency (number and percent). Comparing quantitative data was done using an independent sample t-test. Chi-square test or Fisher Exact when appropriate was used to compare qualitative data. Regression analysis was used to check the independent predictors for better attitude scores toward palliative care with adjustment of any confounding factors.

119 (52.9%) were uncertain of the types and length of services covered under the palliative care benefit (Q4). 132 (58.7%) didn't agree that palliative care is the right for the patient since day one diagnosis of life-threatening illness as long as he/she has complex symptoms (Q5). Moreover, the majority of them assume that most patients and families are unwilling to start PC services (Q6) (Supplementary file, Table S1). No statically significant differences in the altitude between males and females in most of the questions (Figure 2).

Most primary care physicians (n=157, 69.8%) didn't discuss the need of the patients for palliative care either with the patients or their families. Only 5.7% and 25.5% reported excellent or very good experience in the management of pain and other symptoms respectively. Again only 20.4% reported excellent or very good experience in conducting family counselling and breaking bad news. No statically significant differences between males and other females in self-assessment of their knowledge and experience towards palliative care (Table 1).

Only 6.7 % (n=15) had good knowledge of primary palliative care, 47.1% (n=106) had fair knowledge and 46.2% (n=104) had poor knowledge. More than 85% of the respondents knew the difference between traditional care and palliative care and multidisciplinary team role in palliative care. More than 50% of the primary care physicians responded correctly to questions regarding delirium (n=131, 58.2%), hypercalcemia (n=128, 56.9%), and spinal cord compression (n=213, 94.7%). However, the majority of the primary care physicians responded incorrectly to questions regarding refractory dyspnea (n=183, 81.3%), superior venacaval obstruction symptoms (n=167, 74.2%) and management of catastrophic bleeding (n=176, 78.2%) while less than 50% of primary care physicians answered correctly the questions about opioid initiation, types, toxicity. (Supplementary file, Table S2). There were no statically significant differences in the knowledge of primary palliative care between males and females (Figure 2). No statistically significant differences between primary care physicians from different health areas in attitude or knowledge (Supplementary file, Table S3).

There was a positive association between knowledge and attitude categories by using chi-square (p-value <0.001) (Figure 3). This association was confirmed by using the generalized linear method as we found that higher knowledge scores were an independent predictor of better attitude scores after adjustment of age, sex, qualifications, speciality, position, years of experience, and nationality [OR: 1.088 (95% CI: 1.012-1.170; p-value: 0.023)]. (Table 2)

Discussion

Palliative care is appropriate for every elderly patient with a serious illness, irrespective of the prognosis or closeness to the end of life. Growing palliative care skills and principles for primary care physicians have to be started without a delay to meet the challenges of the future [5]. Palliative care knowledge and attitude questionnaire for non-palliative physicians (PCAK) [18] was used in our study. There were no statically significant differences between primary care physicians in their knowledge or attitude or even their self-assessment of their palliative care experiences although the existence of many nationalities in Kuwait mostly Arabian, Asian nationalities from diverse cultures, medical education, and years of experience,

In this study, the majority of primary care physicians didn't receive any formal palliative training and had an uncertain attitude toward palliative care and knowledge scores ≤75%. The higher the knowledge scores, the better the attitude. WHO analgesic ladder, opioid initiation, types, toxicity, and its critical role in refractory dyspnea

represented major defects in the knowledge in primary care physicians (only < 50% responded correctly). This is similar to studies from Thailand [15] or Poland [19] that report insufficient knowledge in opioid handling and pain management especially with restricted accessibility and availability to different types and forms of opioids in their practices [15]. On the other hand, a recent study in India showed that primary care physicians had a high level of knowledge regarding pain control and WHO's 3 steps analgesic ladder pattern [20]. There are several myths about using opioids not only among the general population but also among physicians particularly the misconception of respiratory depression with opioids in refractory dyspnea which let physicians feel discomfort in prescribing opioids [21].

The majority of primary care physicians denied the palliative care benefit is the right for the patient since the diagnosis of life-threatening illness especially if they have complex symptoms although they admitted palliative care benefits for terminally ill patients.

The primary care physicians in other countries such as South Africa, Thailand and Italy usually discuss the need for palliative care either with the patients or their families [14-16] unlike our study. This might be related to cultural difficulties in delivering bad news or discussing any topics to death in front of the patient or even some family members as this can cause distress and loss of hope to the patients and their families [3]. Moreover, lack of adequate education in palliative care at the undergraduate or graduate level may let many primary care physicians feel distressed and unprepared. In many studies; physicians showed a generally positive attitude after an educational program in palliative care besides the improvement in their clinical skills and knowledge although the absence of formal assessment of the educational program impact [22-25].

Dealing with a culture that largely focuses on cure rather than comfort makes health care professionals avoid dealing with patients with advanced disease [20] although they are the first line physicians that face them either in the primary care clinics or their homes [5, 20]. This could be due to the complexity of those patients; many comorbidities, advanced cancer, multiple lines of chemotherapies and their complications; or due to lack of communication skills, their clinical incompetence, and inadequate time to provide appropriate care to manage all the physical and psychological complaints of the patients and the caregivers during a single visit,[5] and inability to assure continuity of home care to those patients due to family and personal commitments. Moreover, lack of interest, indirect accessibility to services offered by palliative care including medications, lack of support from palliative medicine specialists due to their shortage limits primary care physicians' activities [26] especially in the management of symptoms [26-28] and complex clinical situations [28, 29]. These may be the main reasons for uncertain and negative attitudes in many studies [14, 28, 30, 31].

Based on the wide accessibility of primary health care systems in the community together with their long-standing rapport with patients and their families, easier home visits compared to other specialities, and feasibility and effectiveness of most symptoms management by any physician with primary palliative care training, it becomes obligatory to integrate palliative care into primary health care systems [32, 33]. However, measures should be taken to support them by palliative care specialists for complex or unfamiliar problems, improving their knowledge and experience, training on communication skills, providing them with the needed medications, coordination with other health care resources and at the same time, easy access to a higher-level institution when

needed so they can straightforwardly and rapidly transfer patients to relieve refractory symptoms [5, 32, 34, 35].

Strength and limitation of the study:

It is the first study to assess the knowledge and attitude of Primary care physicians toward palliative care in the entire region. The sampling procedure was done by a systemic randomized sampling method and represented 25% of the target population of the study with no selection bias. The availability of the newly developed validated questionnaire (PCAK) helped us to assess the primary care physicians. The shortage of similar studies carried out in the Eastern Mediterranean region and other parts of the world made the comparison and discussion difficult.

Conclusion

The uncertain attitude and poor knowledge were reported in the majority of primary care physicians towards palliative care. Integrating palliative care into primary health care systems has to be initiated as possible to lessen the suffering of those patients and to meet the challenges of the ageing society.

Civilizing palliative care will require considerable investment in the research, facilitation of medical care and furnish proper education to primary care physicians and other health care providers.

Ethics committee approval and consent to participate: The research project has been approved by the Institutional Review Board (IRB) of the Ministry of Health, Kuwait (No.321/2017, March 2017) within which the work was undertaken and that it conforms to the provisions of the Declaration of Helsinki. All participants gave informed consent and their anonymity was preserved.

Authors consent: All authors had approved the final article.

Conflicts of Interest: The author(s) declared no potential conflicts of interest concerning the research, authorship and/or publication of this article.

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Table 1: General description of the primary care physicians in Kuwait

		Total (N=225)	Males (n=115)	Females (n=110)	*P* value*
Age		41.72(10.15)	45.03(10.77)	38.24(8.16)	<0.001
Nationality	Kuwaiti	42(18.7%)	21(18.3%)	21(19.1%)	0.873
	Non-Kuwaiti	183 (81.3%)	94(81.7%)	89(80.9)	
Qualification	MBBS	104 (46.2%)	52(45.2%)	52(47.3%)	
	Master	80 (35.6%)	38(33%)	42(38.2 %)	0.437
	MD/MRCP	41 (18.2%)	25(21.8%)	16(14.5%)	
Speciality	Family medicine	57 (25.3%)	30(26.1%)	27(25.3%)	
	Internal medicine	25 (11.1%)	14(12.2%)	11(10 %)	0.663
	GP	114 (50.7%)	54(47%)	60(54.5%)	
	Others	29 (12.9%)	17(14.8%)	12(10.9%)	
Position	Assistant registrar	85 (37.7%)	35(30.4%)	50(45.4%)	
	Registrar	76 (33.8%)	38(33%)	38(34.5%)	
	Senior registrar	37 (16.4%)	28(24.3 %)	9(8.2 %)	0.004
	Specialist/Consultant	27 (12%)	14(12.2 %)	13(11.8%)	
Experience(yrs)		15.62(9.29)	18.46(9.63)	12.62(7.91)	<0.001
	<14 years	108(48.2%)	42(36.5%)	66(60.6%)	<0.001
	>=14 years	116(51.8%)	73(63.5%)	43(39.4%)	
Discussion about palliative care	No patients	157 (69.8%)	86(74.8%)	71(64.5%)	
	1 to 5 patients	48 (21.3%)	19(16.5%)	29(26.4%)	
	6 to 10 patients	11 (4.9%)	6(5.2%)	5(4.5%)	0.229
	11 to 15 patients	2 (0.9%)	0(0 %)	2(1.8%)	
	> 15 patients, families	7 (3.1%)	4(3.5%)	3(2.7%)	
Formal training in palliative care	No	211(93.8%)	106(92.71%)	105(95.45%)	0.657
	Yes	14(6.2%)	9(7.29%)	5(4.55%)	
Self-assessment of the knowledge in:				(%)	
1-Pain	Excellent	3(1.3%)	1(0.9 %)	2(1.8 %)	
	very good	10(4.4%)	5(4.3 %)	5(4.5%)	
	good	73(32.4%)	41(35.7%)	32(29.1%)	0.791
	weak	95(42.2%)	45(39.1%)	50(45.5%)	
	none	44(19.6%)	23(20%)	21(19.1%)	
2-Other Symptoms	Excellent	16(7.1%)	4(3.5%)	12(10.9%)	
	very good	37(16.4%)	19(16.5%)	18(16.4%)	
	good	105(46.7%)	58(50.4%)	47(42.7%)	0.267
	weak	44(19.6%)	23(20%)	21(19.1%)	
	none	23(10.2%)	11(9.6%)	12(10.9%)	
3-Councling	Excellent	10(4.4%)	3(2.6%)	7(6.4%)	
	very good	36(16.0%)	21(18.3%)	15(13.6%)	
	good	108(48.0%)	56(48 %)	52(47.3%)	0.268
	weak	49(21.8%)	21(18.3%)	28(25.5%)	
	none	22(9.8%)	14(12.2%)	8(7.3%)	

**P value < 0.05 is significant.*

Table (2): Generalized linear model of predictors of better attitude:

	B	SE	OR	95% CI		*p*-value
				Lower	Upper	
Sex (male)	0.302	0.145	0.739	0.556	0.983	0.037
Age	0.083	0.021	1.087	1.042	1.134	<0.001
Nationality (Kuwaiti)	0.047	0.181	.568	.367	.879	0.011
Years of experience	0.070	0.023	0.932	0.891	0.976	0.003
Qualification (master, MBBS)	0.213	0.206	1.067	0.826	1.853	0.302
Specialty (not GP)	0.598	0.147	1.819	1.364	2.425	<0.001
Position (Registrar)	0.427	0.202	1.533	1.031	2.279	0.035
Basic knowledge score	0.084	0.037	1.088	1.012	1.170	0.023

** p -value < 0.05 is significant*

Figure 1: Flowchart for the sampling procedure

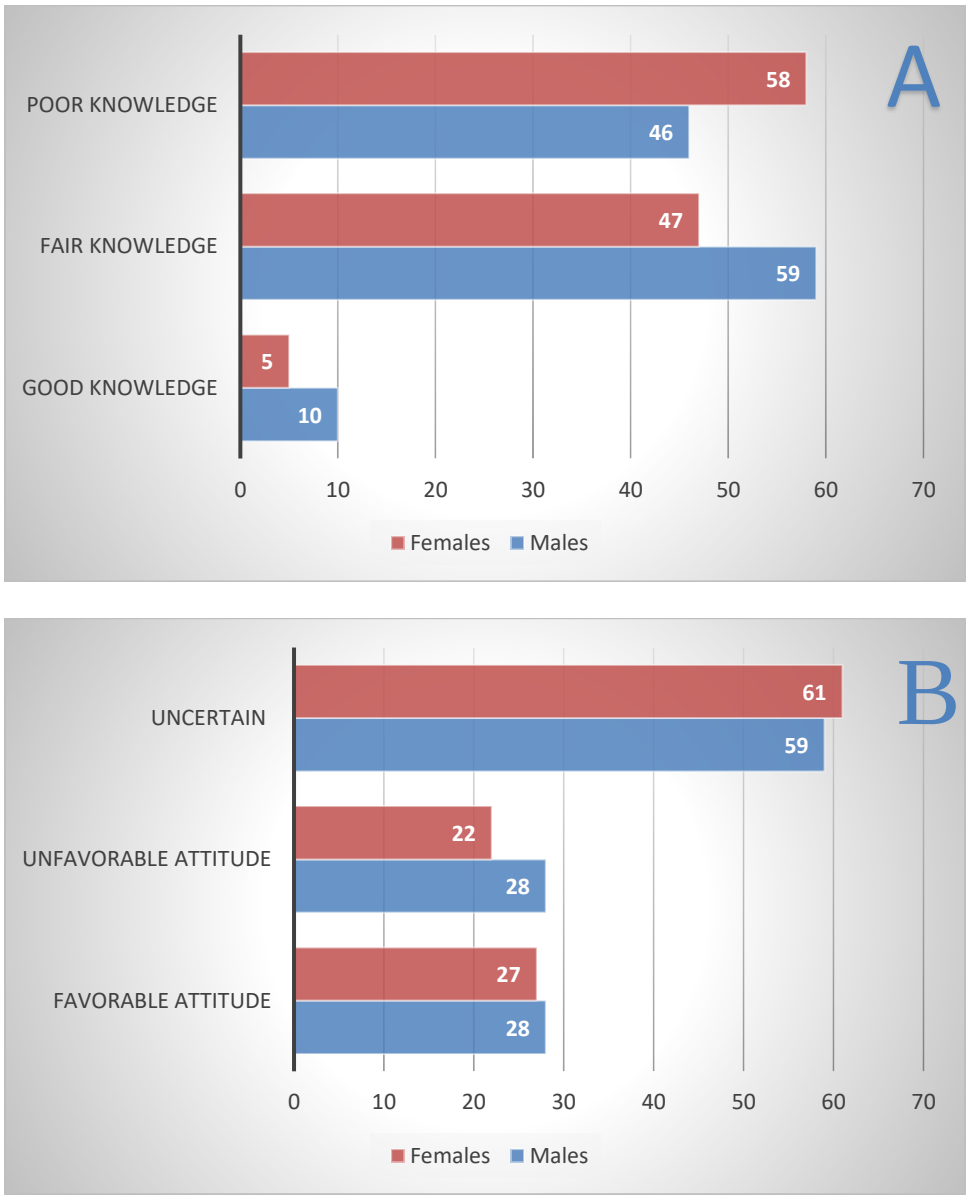

Figure (2): Comparison between males and female physicians in their knowledge (A) and attitude (b)

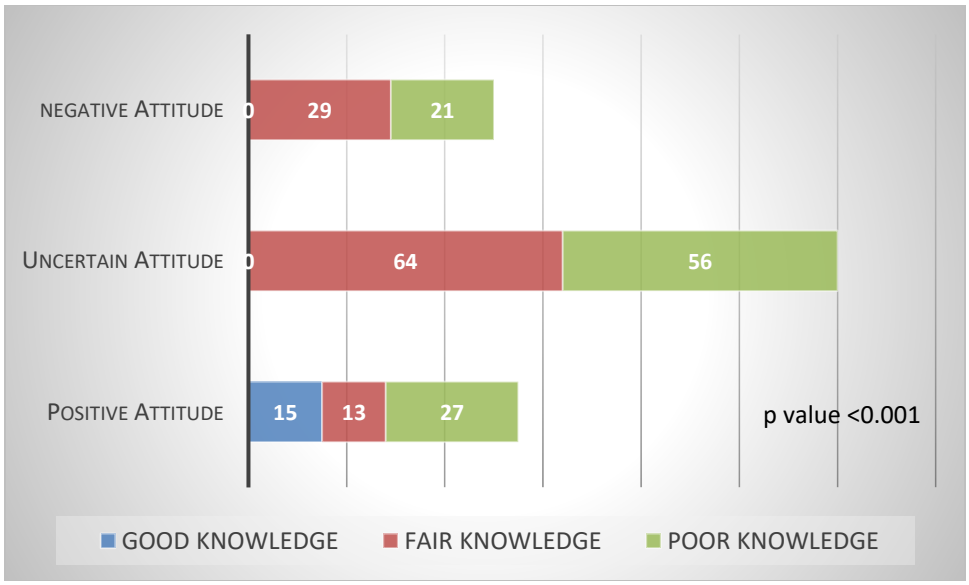

Figure (3): Relationship between attitude and knowledge in primary care physicians in Kuwait