

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

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Abstract

Background

Although the primary care physicians' role in delivering the majority of care with high-quality service for patients under palliative care is unquestionable, it is not clear what their current level of knowledge and attitude toward palliative care is.

Aim

To recognize the primary care physicians' knowledge and attitude toward palliative care in Kuwait.

Design and Setting:

National survey using stratified random sampling was performed. A total of 25 primary care clinics in Kuwait were selected and 284 primary care physicians were recruited.

Method:

Palliative Care Attitude and Knowledge questionnaire (PCKA) were distributed to them. Their attitude and knowledge were measured. predictors of better attitude were assessed.

Results

The response rate was 79.2%(n = 225). 53.3%(n = 120) of primary care physicians had an uncertain attitude towards palliative care while only 15(6.7%) had good knowledge. Only 5.7% and 25.5% reported excellent or very good experience in the management of pain and other symptoms respectively. Moreover, 141(62.7%) and 119(52.9%) were not familiar with palliative care services in their community or length and types of coverage under palliative care benefits. Less than 50% responded correctly to the questions regarding the proper management of catastrophic bleeding, opioid initiation, types, toxicity and its role in refractory dyspnea. Higher knowledge score was a positive predictor for more positive attitude scores (OR:1.088, 95% CI: 1.012–1.170,P value: 0.023).

Conclusion

The majority of primary care physicians had uncertain attitude and poor knowledge towards palliative care. Integrating palliative care into primary health care systems is urgently needed to alleviate the suffering of those patients.

Introduction

Palliative care is an approach that improves the quality of life of patients and their families with life-threatening illness through the multidisciplinary assessment and management for their suffering [1]. Although palliative care services are an effective and feasible alternative option for patients and families to improve their quality of life [2, 3], still they are lacking in many countries especially in Eastern Mediterranean region [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 increasing ageing population, the need for palliative care will increase markedly in the next few decades and this is expected to double by 2050 [7-9]. 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 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]. This will greatly allow patients and families to consider their own personal goals and quality of life throughout the course of a life-threatening illness, not just at the end [11]. These preferences are more likely to be met when the primary care physicians are aware of their needs [12- 14] especially if they didn't request advanced interventions, such as mechanical ventilation or cardiopulmonary resuscitation.

So, we aimed to assess the attitude, knowledge and experiences of the primary care physicians in Kuwait to know the exact situation of the most important component of primary health care systems "physicians" and how it is far from or near to proper integration with palliative care.

Patients And 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 allover (~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. All physicians from each clinic were included. The flowchart of the sampling procedure was presented in Figure 1.

Assuming the frequency of favorable attitude among primary care physicians from 50-90% [15-17] and good knowledge from 30-60% [16-18] 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 (PCKA) [19]:

Recently, a newly developed tool called Palliative Care Attitude and Knowledge (PCKA) questionnaire was created to assess the attitude and knowledge of non-palliative physicians toward palliative care. This newly developed validated questionnaire consists of three sections. Section one inquiries about demographic data and palliative care experience. Section two is measuring the attitude using 5 points Likert. 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. The second part is 12 clinical questions. We used the consolidated criteria for reporting observational studies (STROBE) checklist as far as this applied to our study.

Ethical statement:

The approval of the Institutional Review Board (IRB) of the Ministry of Health was taken before the study (No.321/2017, March 2017). Approvals were also obtained from participating in primary care clinics. The questionnaires were distributed to each primary care clinic and recollected back by our researchers by hand to hand. The aim of the study was explained 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). Independent sample t-test was used for comparison between quantitative data. Chi-square test or Fisher Exact when appropriate was used to compare qualitative data. The generalized linear method was used to find out the independent predictors of better attitude scores toward palliative care with adjustment of any confounding factors.

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. 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 favorable attitude towards palliative care (Table 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). 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, majority of them assume that most of 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 to 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 the 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 the primary palliative care between males and females (Figure 2). No statistically significant differences between primary care physicians from different health areas in the attitude or knowledge or demographic characteristics (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, specialty, position, years of experience, and nationality [OR: 1.088 (95% CI: 1.012-1.170; p-value: 0.023)]. (Table 2)

Discussion

Summary:

Developing palliative care skills for primary care physicians to learn primary palliative care principles have to be started without a delay in order to meet the challenges of the future [5]. Palliative care is appropriate for every elderly patient with a serious illness, irrespective of the prognosis or closeness to the end of life [9]. Although more than 10 different nationalities are existing in Kuwait like Egyptians, Syrians, Pakistanis, Indians, others from different cultures, medical education, specialties, years of experience but no statically significant differences between them either in their knowledge or attitude or even their self-assessment of their palliative care experiences.

Comparison with existing literature

In this study, the majority (53.3%, n=120) of primary care physicians had an uncertain attitude toward palliative care and knowledge scores $\leq 75\%$ (93.3%, n=210). Being with higher knowledge scores, this was associated with a better attitude. The majority of them didn't receive any formal palliative training. These were similar to the original results of PCAK [19] but contradicting to other studies [15, 16]. Still, primary care physicians have little experience and knowledge (only < 50% responded correctly) regarding opioid initiation, types, toxicity, and its critical role in refractory dyspnea and WHO analgesic ladder. This was in agreement with other studies that report insufficient knowledge in opioid handling and pain management either in Thailand [16] or Poland [20] especially given limited availability of different types and forms of opioids in their practices [16]. 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 [18]. There are many myths about using opioids not only among the general population but also among physicians especially the misconception regarding the danger of using opioids in refractory dyspnea as they cause respiratory depression which let physicians feel discomfort in prescribing opioids [21].

Although the majority of primary care physicians agreed that palliative care benefits included enhanced quality of life for the patients and their families and skilled care for terminally ill patients with expert pain and symptom management whatever the disease in either adults or children, still they disagreed that this benefit is the right for the patient since day one diagnosis of life-threatening illness as long as he/she has complex symptoms. Unfortunately, most of them never discuss palliative care either with the patients or their families and this differs from other primary care physicians in other countries but outside our region such as South Africa, Thailand and Italy [15-17]. This difference might be because of cultural differences related to difficulties in delivering bad news or discussing any topics to death in front of the patient or sometimes even in front of some family members as this can cause distress and loss of hope to the

patients and their families [3]. Moreover, many primary care physicians didn't receive adequate education in palliative care at the undergraduate or graduate level such as in our study so they may experience distress and feel unprepared [22-24]. In many studies; after an educational program in palliative care; physicians expressed a general positive attitude not only improvement in their clinical skills and knowledge although limited formal assessment of the impact of an educational program in terms of knowledge, attitude and communication abilities [22-25].

Many authors stated that health care professionals who work within a culture that largely focuses on cure rather than comfort make many of them avoid dealing with the patients with the advanced disease [26] although they are the first line physicians that face them either in the primary care clinics or their homes [5, 26]. This could be due to complexity of those patients; advanced cancer, multiple lines of chemotherapies and their complications, and many comorbidities; or due to clinical incompetence of physicians themselves [26], lack of communication skills and 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 [27] especially in the management of symptoms [27-29] and complex clinical situations [28, 30]. These may be the main reasons for uncertain and negative attitude in many studies [15, 28, 31, 32].

Implications for research and/or practice

Based on the availability of primary health care systems in the community, their long-standing relationship with patients and their families, ability to carry out home visits compared to other specialties, and feasibility and effectiveness of most symptoms management by any physician with primary palliative care training, it becomes mandatory to integrate palliative care into primary health care systems [33, 34]. However, arrangements should be put in place as they have to be supported 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 higher-level institution when needed so they can straightforwardly and rapidly transfer patients to relieve refractory symptoms [5, 33, 35, 36].

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 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 (PCKA) helped us to assess the primary care physicians. Shortage of similar studies carried out in the Eastern Mediterranean region and in other parts of the world made the comparison and discussion difficult.

Conclusion

The majority of primary care physicians had poor knowledge and uncertain or negative attitude towards palliative care. Lack of knowledge and support from palliative care specialists were the main reasons for the uncertain and negative attitude.

Recommendations:

Integrating palliative care into primary health care systems is urgently needed to alleviate the suffering of the patients with life threatening illness to improve their quality of life especially with advancing age. This has to be initiated and prepared as possible to meet the challenges of the aging 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.

Declarations

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.

Consent for publication: All authors had approved the final article agreed for publication.

Availability of data and materials: The datasets used and/or analyzed during the current study available from the corresponding author on reasonable request.

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

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Tables

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%)	0.437
	Master	80 (35.6%)	38(33%)	42(38.2 %)	
	MD/MRCP	41 (18.2%)	25(21.8%)	16(14.5%)	
	Others	29 (12.9%)	17(14.8%)	12(10.9%)	
Specialty	Family medicine	57 (25.3%)	30(26.1%)	27(25.3%)	0.663
	Internal medicine	25 (11.1%)	14(12.2%)	11(10 %)	
	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%)	0.004
	Registrar	76 (33.8%)	38(33%)	38(34.5%)	
	Senior registrar	37 (16.4%)	28(24.3 %)	9(8.2 %)	
	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%)	0.229
	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%)	
	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 %)	0.791
	very good	10(4.4%)	5(4.3 %)	5(4.5%)	
	good	73(32.4%)	41(35.7%)	32(29.1%)	
	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%)	0.267
	very good	37(16.4%)	19(16.5%)	18(16.4%)	
	good	105(46.7%)	58(50.4%)	47(42.7%)	
	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%)	0.268
	very good	36(16.0%)	21(18.3%)	15(13.6%)	
	good	108(48.0%)	56(48 %)	52(47.3%)	
	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

Figures

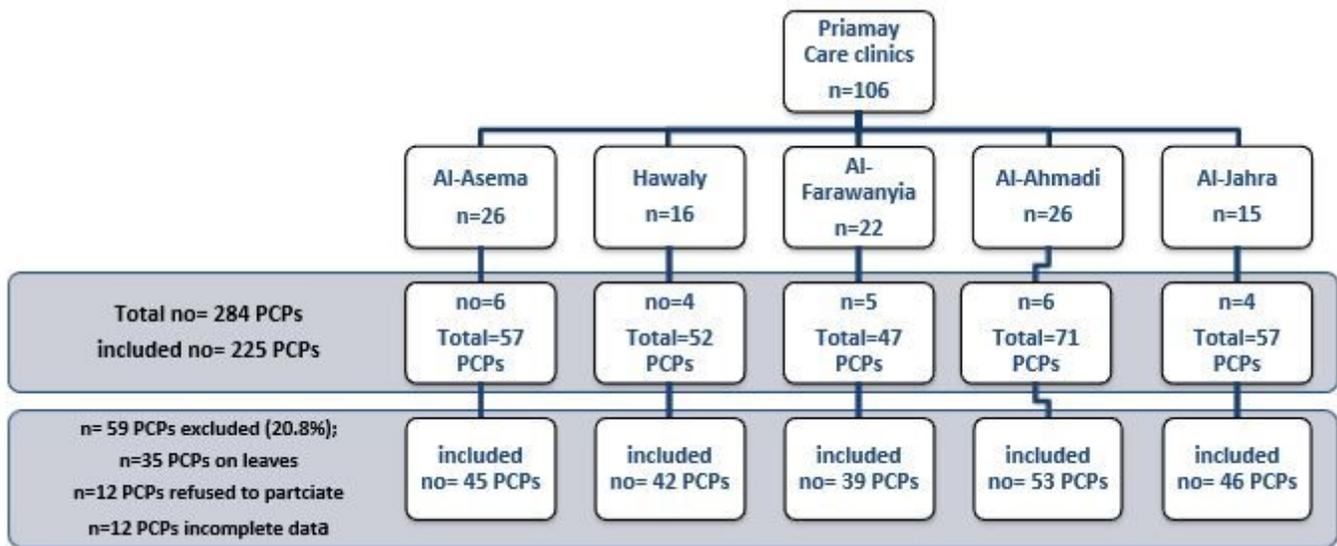


Figure 1

Flowchart for sampling procedure PCPs: Primary care physicians

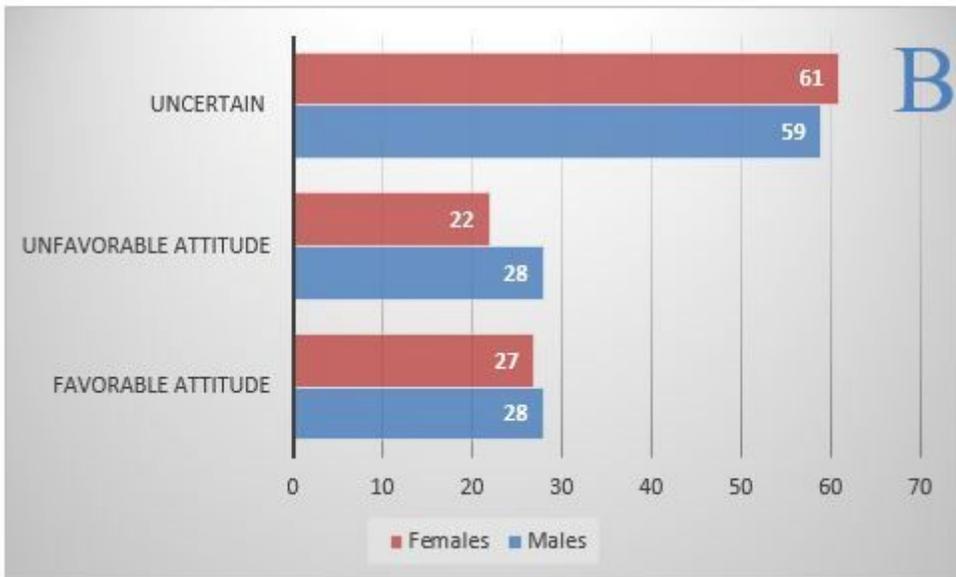
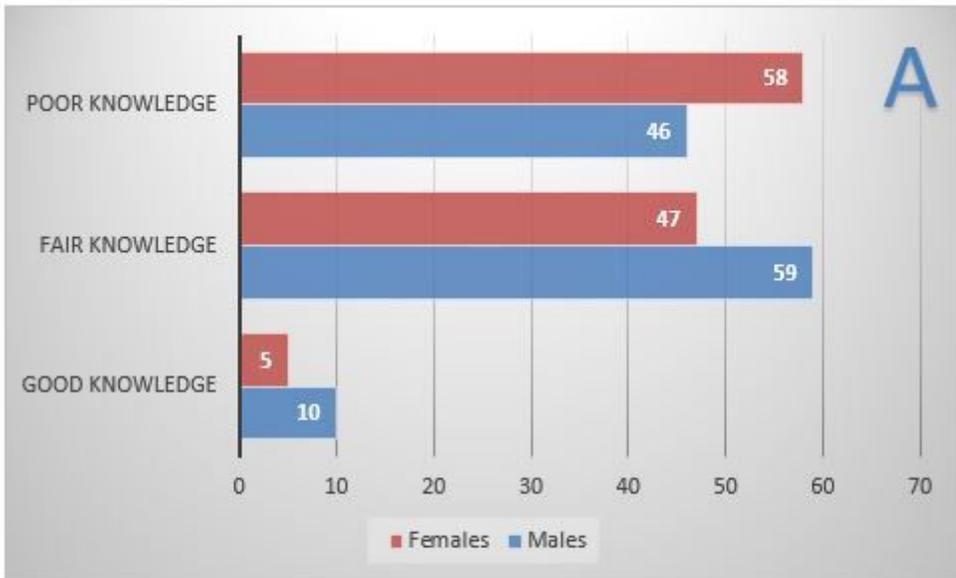


Figure 2

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

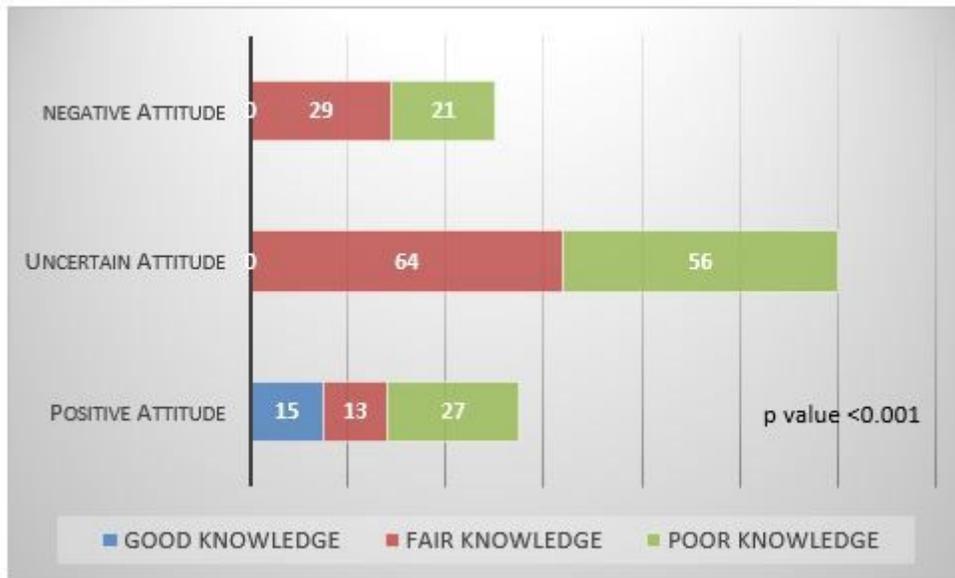


Figure 3

Relationship between attitude and knowledge in primary care physicians

Supplementary Files

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- [Supplementaryfile1.docx](#)