

Knowledge, attitudes and self-perceived competencies on palliative care among medical officers at National Cancer Institute, Sri Lanka

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Abstract

Introduction: Though palliative care is an essential component in the continuum of cancer care, it is still at an evolving phase in Sri Lanka.

Objective: To identify knowledge, attitude, self-perceived competencies in practicing palliative care and factors associated among medical officers in National Cancer Institute, Sri Lanka.

Methods: A descriptive cross sectional study was conducted among doctors in National Cancer Institute in 2020/21 using self-administered questionnaire to assess knowledge, attitudes and self-perceived competencies on palliative care. Doctors worked less than 3 months and directly not involved in patient care were excluded. Scoring systems were used to assess knowledge, attitudes and self-perceived competencies. A descriptive analysis of data was done using SPSS 21 using median scores, frequencies and chi-square test. Ethical clearance was taken from the Ethical Review Committee, Faculty of Medicine, University of Colombo.

Results: Out of 120 doctors included in the study, 83 (69.3%) were females and 37 (30.7%) were males. Majority 101(84.2%) were Sinhalese. Sixty (60%) were 31-40 years. Eleven (9.2%) had training in service. Five (4.2%) had a percentage score for knowledge ≤ 50 while 57 (47.5%) had >75 . Only 3 (2.5%) had a percentage score for attitudes of 51-75 while 116 (96.7%) had >75 . For competency level 57 (47.5%) had percentage score ≤ 50 while 23 (19.2%) had >75 . Ethnicity, age, work experience, receiving undergraduate training were not significantly associated with knowledge, attitudes and practices ($p > .05$).

Conclusion: Though level of knowledge and attitudes were high, self-perceived competencies were low which highlights the need of training in palliative care. Eg: undergraduate curricular and in-service.

Introduction

World Health Organization defines “*palliative care as an approach that improves the quality of life of patients and their families who are facing the problems associated with life-threatening illness through the prevention and relief of suffering by means of early identification, impeccable assessment and treatment of pain and other problems physical, psychosocial and spiritual*” [1].

It is estimated that palliative care is needed for 40%-60% of deaths annually [2]. The leading disease conditions that require palliative care for adults and children globally include cardiovascular diseases, cancer, chronic respiratory diseases etc. In Sri Lanka, the need for palliative care continues to grow due to the rising prevalence of non-communicable diseases and the ageing population [3].

National Strategic Framework for Palliative Care Development in Sri Lanka 2019-2023 identifies the medical officer (MO) as a key service provider in the multi-disciplinary team who provides palliative care in hospital setting [4]. For an example MO encounters cancer patients from the moment of diagnosis and throughout the continuum of cancer care. Hence, he has a significant role in identifying the patient’s palliative care needs, providing and directing them to palliative care services in the hospital setting and in the community. In addition, from the moment the patient is diagnosed, their spiritual and religious beliefs may intensify. Therefore, the MO should have good knowledge and skills to identify such concerns of the patient and address them empathetically as it will enhance the patient’s response to treatment and prognosis.

Several studies were done worldwide to assess knowledge, attitudes and competency in palliative care and associated factors among health care professionals, including medical officers.

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In Brazil, a descriptive study was conducted in 2017 among 96 resident physicians revealed that most (78%) resident physicians did not have adequate palliative care knowledge [5]. A study conducted by Al-Ansari *et al.* (2019) found that the majority of primary care physicians in Kuwait had poor knowledge and uncertain or negative attitude towards palliative care. It highlights the need of providing proper education to primary care physicians and other health care providers on palliative care [6].

So far, a few studies were conducted in Sri Lanka to assess knowledge and skills of health care professionals in palliative care. A descriptive cross-sectional study conducted among 351 pre-residency medical graduates of Sri Lanka found that specific knowledge on “general principles” was adequate (score $\geq 50\%$) with an average of 62.61%, SD=24.5 while “ethics” was observed to be the area with the poorest knowledge (average score=19.55%, SD=22). Average scores for “service organization” and “managerial aspects” were 34.54%, SD=17.6 and 32.26%, SD=22.3, respectively [7]. Askin and Wijerathne in 2019 revealed that overall knowledge of non-cancer palliative care (n=210, 53.7%) among 457 MOs in primary and secondary care hospitals in Colombo district and all the assessed components was poor except for the concept of palliative care [8].

As these were confined to a limited population of medical officers, generalisability of the findings are limited. Accordingly a significant need exists in assessing knowledge, attitudes and self-perceived competencies of medical officers in the process of developing interventions targeting improving palliative care provision at hospitals. National Cancer Institute (NCI) is the premier government cancer treatment centre in Sri Lanka where all modes of cancer treatment with holistic care, including pain management, physiotherapy, nutritional services, mental health services are provided free of charge. Each year patient care for approximately 125,000 outdoor patients and 43,000 indoor patients are provided by it with about 12,000 new patients are registered per year. Cancer patients is a group who are in extreme need of palliative care throughout their cancer care pathway. Therefore present study was conducted to assess knowledge, attitudes and self-perceived competencies of medical officers in the National Cancer Institute (NCI) of Sri Lanka.

Methods

A descriptive cross-sectional study was conducted among MOs in NCI Sri Lanka. Ethical clearance for the study was obtained from the Ethical Review Committee of Faculty of Medicine, University of Colombo (EC-20-040).

Medical officers who were currently working at NCI for a period of at least three months were included in the study. Self-administered questionnaire (SAQ) was used for data collection. Informed written consent was taken from all the participants. Data was collected in standard manner with minimal disturbance for the service provision.

Confidentiality was ensured with respect to the each stage of the study.

Data entry and data analysis were conducted using SPSS 21 for uni-variate analysis. Selected variables were described using frequency distributions. Scoring systems were developed for assessing knowledge, attitude and competencies of medical officers. Knowledge on palliative care was assessed under categories; palliative care concepts, palliative care provision, communication, pain management, management of common non-pain symptoms and supportive care services. One point was awarded for each correct answer; incorrect or I don't know answer was given zero. Percentage scores of knowledge were classified into Poor knowledge ($\leq 50\%$), fair knowledge (51-75%), and good knowledge ($>75\%$) based on the percentages obtained. Attitude was assessed using a Likert scale with responses from “agree/ neither agree nor disagree/disagree”. It had 10 items, +1 for favorable/correct answers, 0 for neutral and -1 for incorrect or unfavorable attitude. The attitude score was categorised into good ($>75\%$), moderate (51-75%), and poor ($\leq 50\%$).

Competency in practicing palliative care will be assessed under five sub categories, namely palliative care in general, pain management, other common symptoms, communication, psychosocial support. Similarly, the competency score was categorised into good ($>75\%$), moderate (51-75%), and poor ($\leq 50\%$).

Descriptive statistics were presented using percentages. Associations between the selected variables and levels of knowledge, attitudes, and self-perceived competencies in practicing palliative care were assessed using the chi-square test or Fisher's Exact Test for categorical variables depending on suitability.

Results

Socio-demographic characteristics

One hundred twenty medical officers working in NCI, Sri Lanka participated in the study. Response rate was 71%.

The majority of 83 (69.2%) were females and 37 (30.8%) were males. Most (n=60, 50%) belong to 31-40 years group. All were MBBS qualified doctors. Only seven (5.9%) were having Diploma in Palliative Medicine. A majority of doctors were having working experience at NCI less than 6 months (n=38; 31.7%).

Knowledge on selected aspects of palliative care among medical officers (Table 1)

Only 33.3% (n=40) knew that palliative care should be provided with curative treatment in a life threatening disease and only 62.5% (n=75) were aware of it should be commenced at the time diagnosis of life threatening illness.

Almost all (99.2% n=119) were aware on multi-disciplinary approach in palliative care. Only 70.8% (n=85) were aware that providing care during dying and bereaved are key components of palliative care provision.

Attitudes and competencies on selected aspects of palliative care among medical officers (Table 2)

Ninety-two per cent (n=110) had a favorable attitude towards considering palliative care as a key area of service provision of a doctor in cancer care. Sixty percent (n=71) disagree with the statement that “provision of palliative care cannot be considered a responsibility of them due to workload”.

Only 41.2% (n=499) were confident in referring the patients to available palliative care services in the hospital, while 26 (21.8%) answered as “not confident”. Considering the available services in the country, it was only 12.6% (n=15).

Table 1. Knowledge on palliative care among medical officers of National Cancer Institute (NCI)

Statement	Response		
	Yes N (%)	No N (%)	Don't know N (%)
Palliative care concepts			
For whom there is no curative treatment (Correct response = No)	65.8% (n=79)	33.3% (n=40)	0.8% (n=01)
Ideally should be started from the time of diagnosis of life-threatening illness (Correct response = Yes)	62.5% (n=75)	25.8% (n=31)	11.7% (n=14)
Equivalent to end of life care (Correct response = No)	30% (n=36)	65.0% (n=78)	5.0% (n=06)
Focused on comfort, rather than cure (Correct response = yes)	93.3% (n=112)	5.0% (n=06)	1.7% (n=02)
Palliative care service provision			
Palliative care is best delivered through a multidisciplinary team (Correct response = yes)	99.2 (n=119)	0% (n=0)	0.8% (n=01)
Caring for the dying and the bereaved are key components in palliative care (Correct response = yes)	70.8 (n=85)	13.3% (n=16)	15.8% (n=19)
Hospice care is a specific type of palliative care for people who likely have 6 months or less to live (Correct response = yes)	52.5 (n=63)	11.7% (n=14)	35.8% (n=43)
Common non pain symptoms			
Delirium, vomiting, constipation, breathlessness are most common symptoms occurring in advance stages of life limiting conditions (Correct response = yes)	86.7(n=104)	6.7(n=8)	6.7(n=8)
Treatment of underlying cause(S) of symptoms is important in symptom management (Correct response = yes)	81.7(91)	10(n=23)	8.3(n=6)
Psychological distress should be treated with the same level of intensity and priority as physical distress (Correct response = yes)	96.7(n=116)	1.7(n=2)	1.7(n=2)
Pain management			
The first step in WHO ladder for treatment of chronic pain is non opioids ± Adjuvant (Correct response = yes)	65.0 (n=78)	14.2% (n=17)	20.8% (n=25)
Oral morphine available in immediate release and long acting formulations (Correct response = yes)	73.3 (n=88)	11.7% (n=14)	15.0% (n=18)
Cause addiction when used for palliative care (Correct response = No)	44.2%(n=53)	43.3% (n=52)	12.5% (n=15)
Supportive services			
There is a separate palliative care consult service at the hospital (Correct response = yes)	85.8 (n=103)	5.0% (n=06)	9.2% (n=11)
There is a counseling unit at the hospital (Correct response = yes)	95.0 (n=113)	5.0% (n=06)	0% (n=0)
There is a social service officer attached to the hospital (Correct response = yes)	79.0 (n=94)	0.9% (n=01)	20.1% (n=24)
End of life care is provided at hospices (Correct response = yes)	63.9 (n=76)	12.6% (n=15)	23.5% (n=28)
Patient can be referred to hospices for palliative care at the last 6/12 (Correct response = yes)	21.0 (n=25)	42.9% (n=51)	36.1% (n=43)

Table 2. Attitudes and competencies on palliative care among medical officers in NCI, Sri Lanka

Statement	Response		
	Correct response N (%)	In-correct responses N (%)	
Attitudes on selected aspects of palliative care among medical officers			
A doctor providing cancer care should have a good understanding of palliative care	89.9% (n=107) (Agree)	2.5% (n=3) (Disagree)	7.6% (n=9) (Neither agree/disagree)
Provision of palliative care cannot be considered a responsibility of the doctor due to workload	59.7% (n=71) (Disagree)	13.4% (n=16) (Agree)	26.9% (n=32) (Neither agree/disagree)
For an effective care provision, it should be followed up at the field level	85.6% (n=101) (Agree)	0.8% (n=1) (Disagree)	13.6% (n=16) (Neither agree/disagree)
To provide quality palliative care, it is important to link with supportive care services such as counselling services, financial support services etc.	95.8% (n=114) (Agree)		4.2% (n=5) (Neither agree/disagree)
Competencies on selected aspects of palliative care among medical officers			
Regarding the basic principles and contents of palliative care	21% (n=25) (Confident)	52.9% (n=63) (Somewhat confident)	26.1% (n=31) (Not confident)
Regarding referring to the available palliative care services in the hospital	41% (n=49) (Confident)	37% (n=44) (Somewhat confident)	21.8% (n=26) (Not confident)
Regarding assessment and management of a patient with cancer pain	36.1% (n=43) (Confident)	48.7% (n=58) (Somewhat confident)	15.1% (n=18) (Not confident)
Regarding treating mild, moderate and severe pain using chronic pain management guidelines including oral morphine	28% (n=33) (Confident)	52.5% (n=62) (Somewhat confident)	19.5% (n=23) (Not confident)
Regarding informing the death of a patient to the family members	43.6% (n=51) (Confident)	43.6% (n=51) (Somewhat confident)	12.8% (n=15) (Not confident)

Percentage score of knowledge, attitudes and self-perceived competencies on palliative care (Table 3)

Percentage scores for knowledge, attitude and competencies on palliative care were not normally distributed. Therefore, it was presented with median percentage score and inter quartile range (IQR).

Median percentage score for knowledge was 74.3 and IQR was 65.7-82.9. Altogether 63 (52.5%) were having score less than the accepted level of over 75%.

Median percentage score for attitude was 96.7 and IQR was 93.3-100. Most (n=116, 96.7%) were having a score >75%.

Median percentage score for competencies was 53.0 and IQR was 34.0-70.0. Only a 19.2% (n=23) were having expected competency level with score over 75%. Altogether 57(47.5%) were having score of 50% and below.

Associated factors for knowledge, attitudes and competencies on palliative care among medical officers (Table 4)

Work experience at NCI for more than six months is significantly associated with the percentage score knowledge (>75%) on palliative care among medical officers. The gender and having palliative care training are significantly associated with the percentage competence score (>75%) among medical officers.

Table 3. Percentage score of knowledge, attitudes and self-perceived competencies on palliative care

Component	Level of score		
	Percentage score ($\leq 50\%$)	Percentage score (51-75%)	Percentage score ($> 75\%$)
Knowledge	4.2% (n=05)	48.3% (n=58)	47.5% (n=57)
Attitudes		2.5% (n=03)	96.7% (n=116)
Competencies	47.5% (n=57)	33.3% (n=40)	19.2% (n=23)

Table 4. Associated factors for knowledge, attitudes and competencies on palliative care among medical officers

Characteristic	Level of score for knowledge %		Significance	Level of score for attitude %		Significance	Level of score for attitude %		Significance
	$\leq 75\%$	$> 75\%$		$\leq 75\%$	$> 75\%$		$\leq 75\%$	$> 75\%$	
1. Sex									
Male	48.6	51.4	P=0.573	2.7	97.3	P=1.000	64.9	35.1	P=0.003*
Female	54.2	45.8		2.4	97.6		88.0	12.0	
2. Ethnicity									
Sinhala	55.4	44.6	P=0.136	2.5	97.5	P=1.000	80.2	19.8	P=1.000
Other	36.8	63.2		0.0	100.0		84.2	15.8	
3. Age									
20-40 years	52.2	47.8	P=0.949	3.0	97.0	P=1.000	83.6	16.4	P=0.390
> 40 years	52.8	47.2		1.9	98.1		77.4	22.6	
4. Education									
MBBS	52.5	47.5	P=1.000	1.7	98.3	P=0.06	80.5	19.5	P=1.000
MBBS & other qualifications	50.0	50.0		50.0	50.0		100.0	0.00	
5. Work experience at NCI*									
< 6 months	71.1	28.9	P=0.006*	5.3	94.7	P=0.239	89.5	10.5	P=0.136
6 months and above	43.9	56.1		1.2	98.8		76.8	33.2	
6. Undergraduate training on palliative care									
Yes	36.4	63.6	P=0.210	0.0	100.0	P=1.000	72.7	27.3	P=0.474
No	54.1	45.9		2.8	97.2		81.7	18.3	
7. Have other palliative care training									
Yes	36.8	63.2	P=0.114	10.5	89.5	P=0.068	57.9	42.1	P=0.007*
No	54.1	45.9		1.0	99.0		84.8	15.2	

National Cancer Institute (NCI)

*p value = significant ($p < 0.05$, 95% CI)

Discussion

The present descriptive cross sectional study assessed the knowledge, attitude and competencies of medical officers providing palliative care among 120 medical officers in NCI Sri Lanka. Median percentage score for knowledge, attitude and competencies were 74.3 (IQR: 65.7-82.9), 96.7 (IQR: 93.3-100) and 53.0 (IQR: 34.0-70.0) respectively. Out of 120, 63 (52.5%), n=03 (2.5%) and n=97 (80.8%) were having scores less than the accepted level of over 75% respectively for knowledge, attitude and competencies on palliative care.

National Strategic Framework for Palliative Care Development in Sri Lanka 2019-2023 identifies the medical officer as a key service provider in the multidisciplinary team who provides palliative care in the hospital setting [9]. Medical officer encounters cancer patients from the moment of diagnosis and throughout the continuum of cancer care. Furthermore, integrating palliative care into primary health care systems to alleviate the suffering of the patients with life threatening illness to improve their quality of life is a key strategy. Hence, MO has a major role in identifying palliative care needs of the patient, providing and directing them to palliative care services at the hospital setting and in the community. Ministry of Health with the partnership of other stakeholders has taken many steps to strengthen palliative care services in Sri Lanka, such as development of guidelines and capacity building programmes for health care workers. Despite these, this study revealed that overall knowledge on palliative care, only 47.5% were having score of > 75% which is accepted level of score in a MO at epi centre as NCI. This shows the need of improving knowledge of MOs in providing palliative care.

It is interesting to note, findings in domains of management of non-pain symptoms in palliative care, palliative care providers and supportive services available in NCI, showed that most of study participants aware on these areas: However, a significant proportion of study participants were not aware on basic concepts of palliative care and different aspects of pain management on palliative care (table 1).

All these gaps are still present among MOs, even though there are several sources available for increasing knowledge such as “Palliative Care Manual for Health Care Professionals in Sri Lanka”, “Practice Guidelines in End of Life Care Sri Lanka”, “Pain Management Guideline for Adults with Cancer” and website of National Cancer Control Programme (NCCP). In addition, NCCP has already distributed several standard palliative care text books including Oxford Text book of Palliative Medicine and the Handbook in Palliative Medicine among cancer treatment centres island wide. Despite these interventions, it reflects further need of building capacity for medical officers in providing palliative care is a priority.

Findings of the present study are consistent with the descriptive cross-sectional studies conducted by

Askin and Wijerathne (2019) and Fernando and Prathapan (2019) on palliative care which revealed overall knowledge of non-cancer palliative care (n=210, 53.7%) and all the assessed components were no satisfactory except for the concept of palliative care [8, 7].

The study findings show that most of the MOs have favorable attitude for palliative care. This is a very much positive aspects in developing future interventions to improve palliative care in Sri Lanka.

However one possibility for this finding could be due to the fact that, out of the doctors among whom the survey was distributed, those who had a particular interest for the discipline of palliative care spent time to take part in this survey as opposed to the others.

A significant proportion of the study sample of the present study was not confident in different domains of service provision of palliative care such as pain management (n=43, 36.1%), psychosocial support (n=33, 28%), end-of-life care (n=28, 24.1%) and communication skills (n=44, 37.26%). According to the study findings, only 19.2% (n=23) study sample had overall competence score on palliative care, score of >75%. It shows gross inadequacy of competencies in pain management among MOs and reflects the need to update MOs on existing guidelines and circulars on chronic pain management. Furthermore it highlights the importance conducting capacity building programmes for MOs in the future.

More than two-thirds of the sample (68%: n=82) had indicated that their working experience at NCI as six months or more which was found to be significantly associated with a higher knowledge score (p<0.006). Further, even though neither undergraduate training in palliative care nor other training programmes were not significantly associated with a knowledge score >75%, having undergone palliative care training was significantly associated with a percentage score of competencies >75% (p=0.007). It shows that training, as well as work experience, is essential in empowering the MOs in palliative care service provision.

One of the main strengths of the present study is that it included all eligible medical officers in NCI- Sri Lanka with a response rate of 71%. In studies in other countries among MOs, response rate is generally lower than the present study; for an example Bangladesh physicians study response rate 23.9% [10].

Quality of data is ensured by using pre-tested self-administrated questionnaire developed after extensive literature search and with expert opinion which ensured both content, consensual validity.

One of the limitations of the study is generalizability of the findings as present study was limited to NCI. Yet, NCI, being the Centre of excellence in cancer care increased the generalisability of the findings. The present study concludes that knowledge, attitude and competencies of MOs on palliative care services is not up to the expected level to ensure quality service.

Study recommends taking multiple interventions including the capacity building of MOs at undergraduate level as well as in service levels targeting towards better knowledge, attitude and skills for contribution in palliative care services. These findings are very much important in improving existing trainer packages as well as in developing new evidence-based trainer packages targeting improving capacity of medical officers in relation to palliative care at under-graduate, in-service and post - basic levels.

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Conflict of interests

None.

Ethics

Ethical approval obtained from Ethical Review Committee of Faculty of Medicine, University of Colombo (Reference No: EC-20-040)

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