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Original Research

Assessment of Palliative Care Knowledge Among Registered Nurses: A Prospective Cross-Sectional Study in a Tertiary Care Hospital in Central India

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Objective: This study aimed to assess palliative care knowledge among registered nurses working in a tertiary care hospital in Madhya Pradesh, India.

Materials and Methods: This prospective cross-sectional study was conducted on 160 registered nurses working in various departments at a tertiary care hospital in Madhya Pradesh. Participants were selected using purposive sampling. Data were collected using an online questionnaire for socio-demographic variables and a validated self-report questionnaire to measure palliative care knowledge. Data were analyzed using IBM-SPSSv26.

Results: A total of 160 participants enrolled in the study. Basic palliative care knowledge was relatively high among the sample (83.75%). Knowledge regarding pain management was high for items 1 and 2 (83.43%), but significantly lower for items 3, 4, and 5 (22%). Overall knowledge of pain management was 47%, indicating a need for improvement. The use of morphine was reported by 31.04% of nurses, dyspnea management by 38.33%, and

communication of prognosis by 81.56%. Knowledge regarding resuscitation was 46.85%, psycho-spiritual care 24.06%, and bereavement care 69%.

Conclusion: This study highlights a significant gap in palliative care knowledge among registered nurses. Improving the quality of palliative care services provided to patients requires enhancing nurses' knowledge through in-service education and on-the-job retraining.

Introduction

Palliative care is the active holistic care of individuals across all ages with serious health-related suffering due to severe illness and especially of those near the end of life. It aims to maintain and improve the quality of life of patients, their families and their caregivers [1].

Palliative care and end-of-life care is included in the undergraduate medical curriculum as per the National Health Policy, in 2017. The impact of this essential step on the delivery of care in the country is noy yet appreciable. India is at the 59th position in ‘Quality of death index” among 81 countries studied [2]. The parameters included in calculation of “quality of death Index” are: (a) management of pain and discomfort (b) clean and safe space for the patients, and (c) whether or not patient is treated kindly [2]. These issues can best be addressed by educating medical professionals and creating public awareness; The fragmented delivery of palliative care in present day needs to change towards a better understanding of the enormous symptom burden during long term care, end -of life scenarios.

There are approximately 1000 palliative care units in India, ninety percent of these being located in a single state of Kerala with a population accounting for three percent of the country’s population [3]. As per Palliative care directories, there are 16 palliative care centres active in the state Madhya Pradesh with a population of five percent of total population of India [4,5].

Patients and their families have the right to receive palliative care in the end of their life, the nurses are not well-trained in palliative care and lack basic knowledge [6,7]. There is a need to educate nurses in order to provide high-quality palliative and end-of-life care. As there is limited research on palliative care with nurses, the first step is to assess their baseline knowledge of palliative care. The findings of this cross sectional study among nurses from a variety of disciplines will be the basis of formulating a program of sensitization and education of nursing professionals so that effective palliative care can be delivered to patients.

Objectives

1. To assess the knowledge of palliative care in registered nurses working at tertiary care hospitals.

2. To find an association between the duration of nursing experience with the knowledge of palliative care.

Materials and Methods

The study was conducted by means of a purposive sampling technique on registered nurses working in various departments of a multispecialty tertiary care hospital in Madhya Pradesh. All participants were required to provide their written informed consent prior to their participation. Consented participants were given the survey questionnaire using an online survey questionnaire.

The study utilized a self-report questionnaire “The Palliative Care Knowledge Questionnaire-Basic (PCKQ-B)” recently validated by Pruthi et al. to measure the knowledge of health care professionals about palliative care in the Indian context [8]. The scale had 25 items for each of which the person had to answer ‘Yes,’ ‘No,’ or ‘Don’t Know.’ Items 1 for definition of palliative care (1 Item), 2 to 6 indicates philosophy (5 Items), 7 to 11 for pain in palliative care (5 Items), 12 to 14 for morphine in palliative care (3 Items), 15 to 17 for Dyspnoea (3 Items), 18 to 19 for communication of prognosis (2 Items), 20 to 21 for Resuscitation in palliative care, 22 to 23 for psycho-socio-spiritual issues (2 Items) and 24 to 25 for Bereavement care (2 Items). The obtained data was analysed using SPSS version 26. Chi-Square test was used to evaluate the significance of association between the self-report questionnaire and duration of work experience at 0.05 level.

Results

Demographic characteristics

The study group had 160 participants (97 female and 63 male) working as registered nurses in tertiary care hospital. Their median age was 23 years (22 to 50 years), 95 (59.4%) had a BSc Nursing degree. 78 participants had work experience of >3 years (48.8%) (Table 1).

Item	Frequency (percentage) N=160
Median Age (Range)	23 (22 to 50)
Gender	
Male	62 (38.8)
Female	98 (61.3)
Education	
BSc	95 (59.4)
GNM	45 (28.1)
Post-graduation	14 (8.8)
Other	6 (3.8)
Clinical experience	
<3 years	82 (51.2)
≥3 years	78 (48.8)
Number of terminally ill patients ever cared for	
None	36 (22.5)
1 to 10	56 (35)
10 to 50	37 (23.1)
50 to 100	17 (10.6)
>100	14 (8.8)
Number of cancer patients ever cared for	
None	32 (20)
1 to 10	55 (34.4)
10 to 50	36 (22.5)
50 to 100	16 (10)
>100	21 (13.1)
Speciality	
Oncology	37 (23.1)
Non oncology	123 (76.8)
Participation in educational activities related to palliative care	
Yes	35 (21.9)
No	125 (78.1)

Table 1. Demographic Details of the Evaluated Registered Nurses.

Basic knowledge of palliative care

The response of the nurses to the need of palliative care: 128 (80%) responded in the affirmative, that palliative care is necessary across domains like chronic illnesses, HIV / AIDS; cancers, heart disease (Table 2).

		Experience (<3 years)			Experience (>3 years)		p-value
	Yes (%)	No (%)	Don't know (%)	Yes (%)	No (%)	Don't know (%)	
When do you think palliative care is needed?							
2. Care of patients with advanced cancer	80 (97.6)	11 (13.4)	3 (3.7)	77(98.7)	2 (2.6)	5 (6.4)	0.035
3. Total care of chronically ill patients	69 (84.1)	9 (11)	4 (4.9)	68 (87.2)	6 (7.7)	4 (5.1)	0.776
4. HIV/AIDS patients	56 (68.3)	18 (22)	8 (9.8)	65 (83.3)	9 (11.5)	4 (5.1)	0.086
5. Chronic non-malignant diseases such as end-stage heart failure	66 (80.5)	10 (12.2)	6 (7.3))	67 (85.9)	8 (10.3)	3 (3.8)	0.568
6. Palliative care should start at the time of diagnosis of a life-threatening illness	66 (80.5)	13 (15.9)	3 (3.7)	71 (91)	6 (7.7)	1 (1.3)	0.16
Pain in palliative care:							
7. Is pain a vital sign?	61 (74.4)	21 (25.6)	0 (0)	64 (82.1)	12(15.4)	2 (2.6)	0.109
8. Severity of pain determines method of pain treatment.	72 (87.8)	9 (11)	1 (1.2)	70 (89.7)	7 (9)	1 (1.3)	0.915
9. Most effective drug for cancer pain is fortwin +phenargan.	52 (63.4)	23 (28)	7 (8.5)	50 (64.1)	23 (29.5)	5 (6.4)	0.873
10. Use of placebos is appropriate in some types of pain.	54 (65.9)	18 (22)	10 (12.2)	61 (78.2)	12 (15.4)	5 (6.4)	0.202
11. A patient on morphine does not need NSAIDs (e.g. diclofenac)/par	58 (70.7)	18 (22)	6 (7.3)	61 (78.2)	15 (19.2)	2 (2.6)	0.325

acetamol.							
Morphine in palliative care:							
12. Causes addiction in terminally ill patients	59 (72)	9 (11)	14 (17.1)	62 (79.5)	14 (17.9)	2 (2.6)	0.007
13. Causes death in all dying patients	40 (48.8)	35 (42.7)	7 (8.5)	34 (43.6)	40 (51.3)	4 (5.1)	0.463
14. Always causes nausea /vomiting	53 (64.6)	23 (28)	6 (7.3)	46 (59)	28 (35.9)	4 (5.1)	0.526
15. Patient with lung metastasis having breathlessness must be intubated (in palliative care)	58 (70.7)	13 (15.9)	11(13.4)	50 (64.1)	26 (33.3)	2 (2.6)	0.004
16. Are you aware of problems and practical care of patient with colostomy?	62 (75.6)	10 (12.2)	10 (12.2)	63 (80.8)	12 (15.4)	3 (3.8)	0.145
17. Oxygen su pplementation may help in last difficult breaths.	68 (82.9)	8 (9.8)	6 (7.3)	65 (83.3)	12 (15.4)	1 (1.3)	0.114
Communicatio n of prognosis:							
18. Prognosis should always be clearly communicated	71 (86.6)	6 (7.3)	5 (6.1)	75(96.2)	2 (2.6)	1 (1.3)	0.096
19. Prognosis should only be informed to family members	55 (67.1)	19 (23.2)	8 (9.8)	60 (76.9)	17 (21.8)	1 (1.3)	0.059
Resuscitation in cancer patients:							
20. Resuscitation must always be performed if a patient is crashing irrespective of advanced metastatic cancer.	57 (69.5)	16 (19.5)	9 (11)	56 (71.8)	19 (24.4)	3 (3.8)	0.205
21. Patients (if possible) and relatives both should always be involved in 'Do Not Attempt Resuscitation	53 (64.6)	17 (20.7)	12 (14.6)	62 (79.5)	12 (16.7)	3 (3.8)	0.038

(DNAR/ DNR)' decision making.							
Psycho-socio-spiritual issues:							
22. Role of nurses is to take care of physical aspect of disease only, psychological issues must be dealt by psychiatrist or other professionals.	60 (73.2)	19 (23.2)	3 (3.7)	58 (74.4)	17 (21.8)	3 (3.8)	0.978
23. Role of nurses is to take care of physical aspect of disease only, social issues must be dealt by social worker or other professionals.	56 (68.3)	19 (23.3)	7 (8.5)	52 (66.7)	22 (28.2)	4 (5.1)	0.581
Bereavement care:							
24. Do you know what bereavement is?	57 (69.5)	12 (14.6)	13 (15.9)	59 (75.6)	7 (9)	12 (15.4)	0.524
25. Are you aware of concept of bereavement care?	50 (61)	19 (23.2)	13 (15.9)	57 (73.1)	12 (15.4)	9(11.5)	0.263

Table 2. Responses to Questionnaire.

Nurses with > 3 years-experience have responded significantly better when asked about need of palliative care in advanced cancers in comparison to staff having experience < 3 years (p=0.035) (Table 2). Pain management is the most important aspect of palliative care and the awareness about pain among nursing staff is quite good with approximately 83% responding in the affirmative. The difference in response with years of experience was not statistically significant. Knowledge of different mechanisms mediating pain seemed inadequate. Only 22% responded correctly identifying the mechanism irrespective of their years of experience. The role of morphine is pivotal in management of pain in terminally ill cancer patients and only 30% of the nurses responded correctly, with staff having experience of 3 years responded significantly better (p=0.007). The use of endotracheal intubation and assisted ventilation is not well understood. Only 28/160 (18) of respondents identified it correctly. The knowledge of the futility of intubation in dying patients was significantly better among experienced (> 3 years) staff than others (p=0.004). The need for resuscitation was identified correctly by about 46% respondents. mentioning "do not attempt resuscitation" decision making (p=0.038). on communication of prognosis About 56 % nurses responded correctly about communication of prognosis and those having >3 years responding significantly better (p=0.059). Nearly 23% responded satisfactorily about psycho-social-spiritual issues, irrespective of the length of experience (Table 2). The knowledge about bereavement is common among the nursing staff with 69% responding correctly with no significant difference in

response based on experience.

Discussion

Nurses are in close contact and spend long hours with patients in a palliative care unit, and develop a unique bond with them. Their training will go a long way in delivering effective palliative care. The present study is an early attempt to gauge the knowledge level of nurses about palliative care. and is the first step in prioritizing holistic culture specific palliation of the enormous symptom and distress burden that cancer patients in our country suffer from. The study has brought out that the patients' need for palliation is probably being assessed by most nurses correctly; however, the understanding of pain pathway-specific medication and of the futility of invasive resuscitation is not been understood well by nurses. Ronaldson et al, Proctor et al in their study showed that most nurses have inadequate knowledge of pain management, use of morphine, knowledge of resuscitation and psycho spiritual well-being of patients [9,10]. Possibly, the paucity of instruction in palliative care outside oncology centres explains this deficit. Nurses graduating from non-oncology institutes are not much aware about palliative care. Knowledge of palliative care improves over a period of time with experience of working in an institute providing palliative care [11]. Such experience is insufficient as shown in our study and underscores the need of a formal palliative care training to help deliver state of the art services.

Some misconceptions are brought out in our study. Most respondents know the importance of pain and its severity (PCKQ-B, question number 7-8), but were unable to access the need of pain medication and use of morphine, as well as the common side -effects associated with the pain medications and morphine (PCKQ-B, question number 9 -14). This is consistent with the other studies done in Canada by Brazil et al. and in Ethiopia by Kassa et al [12]. The probable cause is the non-availability of morphine in most of the institutes due to strict regulatory control over stocking, dispensing and prescription of morphine, Paucity of hospices and of designated training programs or continuous medical education activities for the nursing staff, also contribute to this gap in care delivery. Knowledge of oxygen supplementation and intubation is not adequate (PCKQ-B, question number 15 and 17) irrespective of the years of nursing experience. This may be because of lack of nuanced understanding of the use of oxygen and intubation in advanced cancer, and of the futility of such efforts at the end of life.

There is an association between the years of experience and the work area of staff nurses with self-report questionnaire; the knowledge increases with experience and nurses with less experience lack the basic knowledge, however, the proportion with satisfactory knowledge is still low [13].

Basic knowledge, communication of prognosis and bereavement care are other domains with few nurses having adequate understanding. The median age for most cancers in India is a decade earlier than that in the western world. Consequently, the lifetime burden of symptoms: emotional, social and spiritual is higher, necessitating holistic palliative care nursing.

The high burden of symptoms in our country also mandates that the transfers to intensive care of patients with advanced cancer be minimised or avoided, so that triage of services directed at palliation of symptoms is performed well by nurses, like in the developed world. The key words in this endeavour remain: modify "knowledge, attitudes and practices."

In conclusion, the study, one of the early exercises in assessment, shows that nurses' knowledge about palliative care is inadequate. It highlights the need of training of nurses in this sub specialty. Further studies can be conducted to understand the challenges encountered in capacity building and delivering effective and sustainable palliative care.

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