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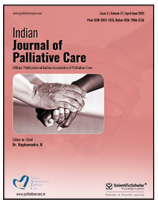

Original Article

Assessment of Knowledge on Palliative Care among the Community Health Officers in Rural Area of Purba Medinipur District, West Bengal, India

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ABSTRACT

Objectives: Palliative care deals with patients who are facing problems of life-threatening diseases. Under the Ayushman Bharat programme, a new cadre of Community Health Officers (CHOs) is provisioned at Health and Wellness Centres (HWCs) who are nursing graduates. Being the team leader at the HWC level, having a low level of knowledge of palliative care would compromise their service. The study assessed the knowledge of CHOs about palliative care services in a rural district of Purba Medinipur, West Bengal, India.

Materials and Methods: A descriptive study with a cross-sectional design was carried out among 314 CHOs posted in different HWCs of Purba Medinipur, West Bengal, during July–August' 2022. We used to collect data based on questionnaires of 'Palliative-Care-Knowledge Questionnaire-Basic' comprising items related to palliative care, the requirement of palliative care, pain management, communication, and dealing with psychosocial issues. A chi-square test was performed to check the association with educational- and experience-related variables and knowledge.

Results: Overall, adequate knowledge was present in 216 (68.8%) and inadequate knowledge in 98 (31.2%) of CHOs. Improper knowledge was present regarding the role of oxygen supplementation in dying patients, the need for palliative care in human immunodeficiency virus/acquired immunodeficiency syndrome, chronic non-malignant diseases, pain management, and communication about the prognosis of disease. The proportion of CHOs who had adequate knowledge who were highly educated (70%) and those who had previous job as CHO (73.3%). Almost similar knowledge scores were found among those who ever cared for or never cared for either terminally ill patients ($P = 0.89$) or cancer patients ($P = 0.853$).

Conclusion: In-depth knowledge was lacking among the CHOs. Training and re-training of CHOs to develop technical and communication skills will help them deliver proper palliative care.

Keywords: Palliative care, Community health officer, Nurses, India

INTRODUCTION

Palliative care is an approach that improves the sufferings of the patients and their families from life-threatening illnesses by reducing associated symptoms and other problems, such as physical, psychological, social, and spiritual.[1] It also improves the quality of life of the patients and caregivers.[2] Globally, it is estimated that palliative care is needed for 40–60% of the death cases, and a majority of adults require palliative care for life-threatening conditions related to chronic cardiovascular diseases, cancer, chronic respiratory diseases, human immunodeficiency virus (HIV), and complicated diabetes.[3,4] The majority of 76% of the estimated 53 million adult population in need of palliative care live in lower- and middle-income countries.[5] It is estimated that more than 1.2 million children are also in need of palliative care worldwide due to congenital anomalies, neurological disorders, cerebral palsy, HIV, and thalassemia major diseases.[5] Only 14% of them have access to palliative care. About 83% of patients have poor access to pain-relieving agents such as opium.[6]

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In India, more than 6 million people are deprived of palliative care, and only 2% of them have access to palliative care.[7,8] Elderly populations are increasing in India. At the time of independence of India (1945), the life expectancy of individuals was 32 years, and, in 2011, it has more than doubled. Therefore, the number of elderly people has increased and more than 104 million people are above the age of 60 years.[9] With the view of rise of aging people, non-communicable disease conditions are increasing. Palliative care, a new concept of treatment for life-threatening diseases, has been initiated in India. Lack of knowledge of palliative care delivery among health professionals, including nurses, creates difficulties in the implementation of palliative care services.[10] In India, 2018, palliative care service was launched as a National Programme named 'National Programme of Palliative Care' (NPPC) in phage manner in different States of India. In West Bengal, NPPC was also launched in all districts. Palliative health care is provided from the lower-level health facility, such as the Health and Wellness Centre (HWC), to tertiary level health care setting. Home-based palliative care is also to be delivered by the Accredited Social Health Activist (ASHA) workers, auxiliary nurse midwives (ANMs), Community Health Officers (CHO), and community volunteers. Communication with the terminally ill patient is important. At the hospital level, such as from primary health centre to medical college hospitals, palliative care services are being provided by trained medical officers, nursing staff psychologists, and other trained personnel. Palliative care services are to be provided at the community level by the CHO, ANM, ASHA workers, and trained local volunteers. CHOs are the qualified nursing staff. They are qualified with either a Diploma in Nursing, BSc in Nursing, or Master's degree in nursing based on their qualification. Before engagement in service (as CHO), they have been trained again for six months. Palliative care is a new dimension of health care for terminally ill patients. Hence, CHO should have adequate knowledge about palliative care. Due to a low level of knowledge of palliative care, CHOs are not capable enough to skilfully assess patient needs, effectively communicate with them, and adequately manage their physical, mental, social, and spiritual issues.[11] With this view, we assessed the knowledge of CHO about palliative care services in the district of Purba Medinipur, West Bengal, India.

MATERIALS AND METHODS

Study setting

The study was conducted among the CHOs who were posted at the different HWCs in the district of Purba Medinipur, West Bengal, India, during July and August 2022. The average population of HWC is 5,000, and there are one or two ANM and three to six ASHA workers placed to look after all the public health agendas. There were 432 HWCs available in the district. However, only 320 CHOs were posted at 320 HWCs. The rest of the HWCs will be filled up soon with CHO. The Purba Medinipur health district had a population of 3,556,900, with four municipalities and 14 development blocks.[12]

Study population with data collection

All CHOs who were posted in the HWC had been included (with their willingness to participate) in the study. Unwilling to participate, CHOs have been excluded from the study. A data collection format was constructed based on 'palliative care knowledge questionnaires – basic'[13], which consisted of two parts with closed-ended questionnaires. The first part of the questionnaire contains basic information about CHO, and the second part contains questions related to knowledge of palliative care services. Basic information was assessed in questions from 1 to 9. Knowledge of care was assessed in questions 10–13. The requirement of palliative care was asked in question number 14–18. Pain management knowledge was assessed between 19 and 23, as well as communication with the patient and family was checked in question number 24. In addition, psychological issues were identified in question number 25. A total of 25 questions were asked to evaluate the knowledge and practice of CHOs in palliative care. Most of the answers to the question would be 'Yes,' 'No,' or Don't know. Before starting data collection, a pre-test for data collection was done among 10% (4/40 of CHO) with one batch. A minor modification of the questionnaires was done based on the experiences. Accordingly, training was conducted among the data collectors. Afterward, we collected the data. A closed supervision was provided during the data collection process by the investigator.

Data analysis

After the collection of data, we entered it into Excel software and transferred it to the Statistical Package for the Social Sciences (SPSS) software. Data were analysed in terms of sociodemographic status and basic questions about palliative care services. The descriptive analysis was done on the percentage of sociodemographic status with questions on knowledge of palliative care, attitude toward cancer patients, pain management, and communication to palliative care needed by patients and their families. For statistical analysis, coding was done for correct responses as 1 and wrong or don't know as 0. A minimum score of 0 and a maximum score of 16 were obtained. A score of ≤8 was considered inadequate knowledge, and >9–16 as adequate knowledge. A Chi-square test was performed to check the association with independent variables among those having adequate and inadequate knowledge. $P < 0.05$ was taken as statistically significant. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp was used for analysis.

Ethical issue

This investigation was done as part of an evaluation of the National Programme for Palliative Care (NPPC), and no ethical approval was obtained. Administrative approval was acquired from the Department of Health and Family Welfare, Government of West Bengal, India.

RESULTS

The total CHO was posted in the district Purba Medinipur, which was 332. Among them, 314 CHO participated in the study. All participants were female. The lowest age was 22, and the highest age was 53. Most of the participants were in the age group of 26–35 years and were 50.6% (159/314) followed by 36–45 years of age group of 27.4% (86/314). Almost 81% (253/314) of them were married. Regarding qualification, nearly 81% (254/314) of CHO had a diploma in nursing, and 19% (59/314) had a bachelor of nursing (BSc in nursing). Among the participants, 74% (240/314) had working experiences as staff nurses in the hospital, and 13% (40/314) of them worked as ANM in the subcentres, now called HWC. About 88% (277/314) of the participants had working experience of more than one year. About 77% (240/314 of them had experience in managing terminally ill patients, and 23% (74/314) had no experience managing such patients. About 38% (120/314) of the participants managed 1–10 cancer cases during their service period, whereas 36% (113/314) did not deal with cancer cases. Exactly 14% (44/314) of CHOs had experience of caring for 11–50 cancer patients. About 12% (37/314) of the participants managed more than 50 cancer cases during their service period [Table 1].

Although, overall knowledge regarding the necessity of palliative care was good. However, some of them had incorrect knowledge about the need for palliative care in HIV/acquired immunodeficiency syndrome patients (22.3%), chronic non-malignant diseases like end-stage heart failure (26.4%), and as well as starting of palliative care at the time of diagnosis of a life-threatening illness was (33.4%).

The knowledge of CHOs regarding pain management was poor. About 90.1% had incorrect or no knowledge regarding the use of a placebo in some pain management. About 80.3% of the participants believed that morphine causes addiction in terminally ill patients, and 69.4% of the respondents felt that there is no need for non-steroidal anti-inflammatory drugs (NSAID) (NSAID: Diclofenac/Ibuprofen) for a patient on morphine. Among the total, 66.2% had incorrect knowledge regarding communication and disclosure of the prognosis of the disease. However, the majority had correct knowledge about the role of the nurses in addressing psychological issues in palliative care [Table 2].

The proportion of CHOs who had adequate knowledge was higher among those who had B.Sc. or postgraduate qualifications (70%) than those who had a diploma in nursing (68.5%) (P = 0.822). The duration of nursing service did not affect the knowledge of palliative care in this study. About 68.2% of CHO had adequate knowledge about palliative care whose service as nursing personnel was >12 months. However, 73.0% had adequate knowledge of whose service was <12 months in duration with P = 0.559. Those who had previous jobs as CHO had better knowledge (73.3%) than those who were posted as ANM (63.6%) and staff nurse (69.2%) with P = 0.654. Similar knowledge scores were found among those who ever cared or never cared for either terminally ill patients (P = 0.89) or cancer patients (P = 0.853). All the associations were, however, non-significant [Table 3].

Table 1: Sociodemographic variables and job experience of community health officers of Purba Medinipur district, West Bengal, India.

Variables	Frequency (*n*/*N*) *N*=314	%
Age in years		
≤25	47	15.0
26–35	159	50.6
36–45	86	27.4
Above 45	22	7.0
Marital status		
Married	253	80.6
Unmarried or widower	61	19.4
Education		
Diploma	254	80.9
BSc and postgraduate	60	19.1
Past experiences in job as		
Staff nurse	240	76.4
ANM	44	14.0
CHO	30	9.6
Experience in current job		
<1 m	5	1.6
1–12 m	32	10.2
More than 12 m	277	88.2
Number of terminally ill patients cared		
None	72	22.9
1–10	85	27.1
11–50	53	16.9
51 and above	104	33.1
Number of cancer patients cared		
None	113	36.0
1–10	120	38.2
11–50	44	14.0
51 and above	37	11.8
Total	314	100.0

CHO: Community Health Officer, ANM: Auxiliary nurse midwife, *n*: sample size, N: Denominator

DISCUSSION

Knowledge of palliative care is important for CHOs. We assessed the knowledge of palliative care to the CHOs of Purba Medinipur district, West Bengal, India. The overall knowledge of CHO was not enough to provide adequate

Table 2: Knowledge of community health officers on palliative care of Purba Medinipur district, West Bengal, India.

Statements	Correct response *n*/*N* (%) *N*=314		Wrong/don't know *n*/*N* (%) *N*=314	
1. Knowledge about palliative care				
(a) Taking care of the caregiver is equally important as patient's care	288	91.7	26	8.3
(b) Palliative care is given to only dying patients	265	84.4	49	15.6
(c) There is no need to communicate home care request received by non-family member of the patients	240	76.4	74	23.6
(d) Oxygen supplement may help in last difficult breath	39	12.4	275	87.6
2. When do you think palliative care is needed?				
(a) Care of patient in advanced cancer	258	82.2	56	17.8
(b) Total care of chronically ill patients	280	89.2	34	10.8
(c) HIV/AIDS patients	244	77.7	70	22.3
(d) Chronic non-malignant diseases such as end-stage heart failure	231	73.6	83	26.4
(e) Palliative care should start at the time of diagnosis of a life-threatening illness	209	66.6	105	33.4
3. Pain in palliative care				
(a) Is pain a vital sign	172	54.8	142	45.2
(b) The severity of pain does not determine the method of pain treatment	210	66.9	104	33.1
(c) The use of a placebo is appropriate in some type of pain	31	9.9	283	90.1
(d) A patient on morphine does not need NSAID (Diclofenac/Paracetamol)	96	30.6	218	69.4
(e) Morphine causes addiction in terminally ill patients	62	19.7	252	80.3
4. Communication about disease				
(a) Prognosis of disease should only be informed to family members	106	33.8	208	66.2
5. Psychosocial issue				
(a) Role of nurse is to talk of physical aspect of the disease only, psychological issues must be dealt by psychiatrists or other professional	191	60.8	123	39.2

HIV: Human immunodeficiency virus, AIDS: Acquired immunodeficiency syndrome, NSAID: Non-steroidal anti-inflammatory drugs, *n*: sample size, N: Denominator

Table 3: Association of education and background variables with knowledge score of community health officers of Purba Medinipur district, West Bengal, India (*N*=314).

Variables	Total *n*/*N* (%)	Adequate *n*/*N* (%)	Inadequate *n*/*N* (%)	Chi-square, df	*P*-value
Education					
Diploma	254 (100.0)	174 (68.5)	80 (31.5)	0.051, 1	0.822
B.Sc. and Postgraduate	60 (100.0)	42 (70.0)	18 (30.0)		
Duration of current service					
≤12 m	37 (100.0)	27 (73.0)	10 (27.0)	0.342, 1	0.559
>12 m	277 (100.0)	189 (68.2)	88 (31.8)		
Past experience in job as					
Staff-nurse	240 (100.0)	166 (69.2)	74 (30.8)	0.849, 2	0.654
ANM	44 (100.0)	28 (63.6)	16 (36.4)		
CHO	30 (100.0)	22 (73.3)	8 (26.7)		
Ever cared for a terminally ill patient					
Yes	242 (100.0)	166 (68.6)	76 (31.4)	0.019, 1	0.891
No	72 (100.0)	50 (69.4)	22 (30.6)		
Ever cared cancer patient					
Yes	201 (100.0)	139 (69.2)	62 (30.8)	0.035, 1	0.853
No	113 (100.0)	77 (68.1)	36 (31.9)		
Total	314 (100.0)	216 (68.8)		98 (31.2)	

P<0.05 -Statistically significant, CHO: Community health officer, ANM: Auxiliary nurse midwife, df: Degree of freedom, *n*: sample size, N: Denominator

basic services to terminally ill patients and was only 58.16%. The response to some questions was very poor and indicated the requirement of training and re-training. This knowledge gap might be due to not inclusion or including palliative care-related chapters in the undergraduate nursing education curriculum.[14] The study in Mangalore, India,

showed a knowledge gap of 71%.[15] Compared to that study, the knowledge gap was higher in this study. Among the questions about pain management, the knowledge was very poor, and only 37% responded correctly, whereas 77.86% of respondents answered correctly in question number 2 (When do you think palliative care is needed?). Hence, the knowledge of CHO varied from question to question.[16] The CHOs who had graduate and postgraduate educational qualifications and had working experiences (short or long duration) had better knowledge in palliative care management, and the Chi-square value was 0.051 and 0.342, respectively. A similar association was found in an Iranian study where educational qualification, age, and duration of services were associated with palliative care.[11,17] Those who had managed terminally ill patients and cancer patients in the maximum number had adequate knowledge of palliative care (Chi-square value was 0.019 and 0.035). However, a study in Neyshabur, Iran, showed poor knowledge and practice toward palliative care among nurses in general.[18] It showed that more working experiences led to better knowledge gained about palliative care. Psychological issues play a crucial role in the management of terminally ill patients.[19] In our study it revealed that 61% of CHO answered psychological issues correctly. Hence, there was a knowledge gap among the CHOs about psychological issues. The study in Ethiopia revealed that experiences in caring for chronically ill patients and experiences in caring for dying patients had a significant association with adequate knowledge of nurses.[20] Similar findings were also present in our study that there was an association between knowledge of caring for chronically ill and dying patients. However, there were poor communication skills to deal with the terminally ill patients and caregivers (family members). This communication skill is required to be improved by training and re-training.

Pain is a vital sign for palliative care management, and nearly 66% responded wrongly to that question. Therefore, education and training are essential for the CHO to improve palliative care management skills. Palliative care is not a part of nursing care only. This is a team approach that is composed of physicians, oncologists, psychologists, psychiatrists, nursing staff, community volunteers, spiritual healers, and social workers. This new concept has been included in the Indian Medical Education curriculum. Most of the participants in the present study did not have any special training in palliative care to understand the new concept of palliative care. They responded with their basic nursing knowledge.

The present study is limited to descriptive research design. Due to the cross-sectional design of this study, causality among the variables could not be established. Longitudinal and qualitative design would have enhanced the generalization of results.

CONCLUSION

As per the tool utilised for knowledge assessment, overall knowledge was adequate among the CHOs in the present study. However, in depth knowledge was lacking as responses varied in different aspects. A well-organised systematic exposure to the instructive and practical components of palliative care education is vital in all types of the basic nursing curriculum. Training and re-training of CHOs to develop technical and communication skills will help the patients go through the final stage of life painlessly, comfortably, and with dignity.

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Ethical approval

The Institutional Review Board approval is not required.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Nil.

Conflicts of interest

There are no conflicts of interest

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that they have used artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript or image creations.

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