e-ISSN: 0976-822X, p-ISSN:2961-6042

Available online on http://www.ijcpr.com/

International Journal of Current Pharmaceutical Review and Research 2026; 18(7); 570-577

Original Research Article

Knowledge on Palliative Care among Medical Students in Manipur: A Cross Sectional Study

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Received: 01-04-2026 / Revised: 15-05-2026 / Accepted: 21-06-2026

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Conflict of interest: Nil

Abstract

Background: With the rising burden of non-communicable diseases (NCDs), ageing of population and certain chronic communicable diseases the need for palliative care has become immense. It has become increasingly important for a medical graduate to acquire knowledge, skills and confidence in providing palliative care. Understanding the current level of knowledge of medical students on palliative care would facilitate planning a need based curriculum and focused training on Palliative care.

Methods An institution-based cross sectional study was conducted among 170 MBBS students and 55 foreign medical graduates (FMGs) externs of Shija Academy of Health Sciences (SAHS) by using convenience sampling technique from 10th May-10th June, 2023. A pre-designed, pre-tested, structured questionnaire developed from the training manual for doctors and nurses under National Programme for Palliative Care (NPPC), MoHFW was used for data collection. The data were entered in Microsoft Excel and analysed using SPSS-Version 25.Chi-square test was applied and P-value <0.05 was taken as statistically significant.

Results: Out of the total 225 participants, 218 (96.9%) have heard of palliative care while only 7 (3.1%) participants have not heard of palliative care. More than half (52%) of the participants have adequate knowledge of palliative care while nearly half (48%) have inadequate knowledge. The level of knowledge of the students was found to have statistically significant association with the religion and position/semester of the participants.

Conclusion: Although nearly half of the participants have adequate knowledge, a substantial proportion exhibited inadequate understanding of palliative care, indicating variability in competency levels. Inclusion of the subject as an integral part of MBBS curriculum and adequate training programs/continuing education may be provided to enhance the knowledge and skills of the students.

Keywords: Palliative Care, Knowledge, Medical Students, Cross-Sectional Study, Manipur.

DOI: 10.25258/ijcpr.18.7.90

Introduction

Palliative care is defined by WHO as "an approach that improves the quality of life of patients and their families through early identification, accurate assessment and appropriate treatment of pain and other physical, psychological, social and mental problems associated with life-threatening diseases [1]. The global need for palliative care continues to grow as a result of the ageing of populations and the rising burden of non-communicable diseases (NCDs) and a few chronic communicable diseases [2]. Each year, an estimated 56.8 million people, including 25.7 million in the last year of life, are in need of palliative care. Worldwide, only about 14% of people who need palliative care currently receive it. It is estimated that by the year 2060, the need is expected to double, making the requirement for palliative care professionals and services a global public health concern [3,4] In India, the need for palliative care is immense. About one million new cases of cancer occur each year and more than 80% present in advanced stages. At any point in time, about 2.5 million cancer patients and another 2.5 million patients with chronic debilitating illness are in need of palliative care services .However, only about one per cent of all these patients receive palliative care [4,5]. A major reason for this unmet need is attributed to availability of limited number of trained palliative care providers, infrastructure

and poor health system policy [4,6]. In due course of time availability of palliative care services across India has improved, with the opening of basic short courses and Master's Degree in Palliative Medicine provided by few institutions. However, there still lies a wide regional and state-wise disparity across the country due to inadequate training, resources and limited sensitisation. [8, 7]. The existing number of qualified palliative care providers is no-where matching the number of patients needing palliative care. Therefore, knowledge of palliative and end of life care is increasingly recognized as an important and an integral component of medical education worldwide [8, 9]. WHO has proposed palliative care to be integrated in basic medical professional courses [10]. In India, The National Program for Palliative Care, NPPC envisaged that education and capacity building activities would be initiated through National Program for Prevention and Control of Non Communicable Diseases (NP-NCD) [11, 12]. Although the National Medical Council of India (NMC) has recognised contextual modifications in the current undergraduate course for including palliative care, medical schools lack dedicated curriculum and lack of trained faculty in palliative care [13].

Educating and training the medical students on palliative care could be a feasible solution to handle this unmet and growing need in our country.

Although palliative care is not a new concept, various literatures suggest that knowledge regarding palliative care is still poor among medical students across the country. In Manipur, the concept and practice of palliative care evolved few years ago. However, no study has been conducted to assess the knowledge of palliative care among medical students. Understanding the current level of knowledge of medical students about palliative care would fill the knowledge gaps and also provides information for appropriate, realistic implementation and evaluation plans.

Objectives:

1. To assess the level of knowledge of palliative care amongst undergraduate medical students and FMG externs of SAHS.
2. To find the association of the level of knowledge on palliative care with socio-demographic characteristics.

Materials and Methods

Study Design and Setting: A Cross-sectional study was conducted among all MBBS students (1st and 3rd Semester) and FMG externs of SAHS.

Study Duration: The study was conducted from 10th May -10th June, 2023.

Inclusion and Exclusion Criteria: The study included all the MBBS students and externs of SAHS who gave consent and excluded those who did not give consent and those who could not be reached even after 2 attempts.

Sample Size: 225 students (Total enumeration of MBBS students and externs of SAHS).

Sampling Method: Convenience sampling.

Data Collection: The MBBS students were approached at the end of one of the assigned theory classes for 2 days after taking due permission from the teacher in-charge. The externs of SAHS were approached by visiting different departments under which they are posted for rotatory externship .The questionnaire were distributed to the participants after explaining about the study and obtaining verbal informed consent.

Study Tool: A pre-designed, pre-tested, structured questionnaire developed from the training manual for doctors and nurses under National Programme for Palliative Care (NPPC), Ministry of Health and Family Welfare was used for data collection. The questionnaire consists of the following sections:

1. Background characteristics of the participants.
2. 12 Knowledge based questions.

Operational Definition:

1. Level of Knowledge: Out of the 12 knowledge based questions, a correct answer was scored 1 while an incorrect or 'I don't know' was scored 0, giving a maximum score of 12 and minimum score of 0.

a. A score $\geq$ 60% of the total score i.e. $\geq$ 7 was considered as adequate knowledge.
b. A score <60% of the total score i.e. < 7 was considered as inadequate knowledge

Statistical Analysis: The data collected was entered in Microsoft Office Excel and analysed using SPSS version 25. Descriptive statistics were expressed in mean, frequency and percentages. Chi-square test was applied for inferential Statistics and P-value <0.05 was taken as statistically significant.

Ethical Considerations: Approval was obtained from the Institutional Ethics Committee, SAHS and Imphal (Please remove). Informed Verbal consent was taken from the participants before data collection.

Results

A total of 225 students participated in the study. The mean age of the study participants is 21.9 + 2.8 years. Majority of the study participants were female (62.7%), belonging to Hindu (66.2%) by religion. Out of the total participants, 44.9 % were in 1st semester, 30.7% in 3rd semester and 24.4%

were FMG externs of the college [Table 1]. Majority (96.9%) of the study participants have heard of "Palliative Care" from various sources such as books/lectures (44.9%), Conferences /CME (34.4%) being the common sources of information [Table 2,3].Out of 225 students, the knowledge regarding palliative care was assessed among 218 participants who have heard of Palliative Care. The mean knowledge score of the study participants was 6.2±1.8. About 163 students (74.3%) mentioned the purpose of palliative Care is to improve the quality of life, while 34 (15.5%) believe palliative care is to prolong life and to treat pain (10%).

Table 1: Background characteristics of the study participants:

Background Characteristics	**n (%)**
Gender	
Male	83 (36.8)
Female	141(62.7)
Others	1(4)
Religion	
Hindu	149(66.2)
Islam	24(10.7)
Christianity	22(9.8)
Sanamahi	30(13.3)
Place of Residence	
Urban	153 (68)
Rural	72(32)
Position	
1st semester	101(44.9)
3rd semester	69 (30.7)
Interns	55(24.4)
Total	**225**

Table 2: Participants who have heard of palliative care

Heard of palliative care	**n (%)**
Yes	218(96.9)
No	7 (3.1)
Total	**225(100)**

Table 3: Sources of information of palliative care

Sources	**n (%)**
Books/Lectures	98(44.9)
Newspaper	3(1.3)
Social Media	19(8.7)
Conference/CME/Workshop	75(34.4)
Family Member/Friends/Relatives	10(4.5)
TV/Radio	13(5.9)
Total	**218**

Regarding the diseases requiring palliative care, the participants mentioned Cancer patients (11.4%), Organ failure patients (4.5%), Senility (8.2%), Stroke or spinal cord injury patients (3,2), Children with cerebral palsy or birth defect (1.8). While 153 (70%) of the students had the idea that palliative care is required for all the aforementioned diseases. Majority (81%) of the participants have the knowledge that palliative care can be provided by Physicians/ Doctors, Nurses, Physiotherapists, Social workers, Volunteer, Family members as well as Community Health workers. More than half (59%) of the students mentioned that palliative care can be provided not only in hospitals but also at home and hospice care settings. Only 48 students (22%) have the right knowledge that palliative care should be started at the time of diagnosis. While 80 participants (36.6%) mentioned that it should be started after all treatments failed to cure the disease, at the terminal stage of the disease 60 (27.5%) and 30 (13.7%) of them have no idea about it. More than one-third of the students have the correct knowledge that medicine for chronic pain in palliative care should be given by the clock, by the mouth and by the ladder. Less than half (45.4%) of the participants correctly mentioned Paracetamol as the Step I drug in the WHO pain management Ladder.

Table 4: Knowledge of the participants on Palliative Care

Items	n (%)
1. Why is Palliative care provided?	
i)To improve quality of life	162(74.3)
ii)To treat pain	22(10)
iii) To prolong life	34(15.5)
iv)Don't know	0(0)
2. What patients need Palliative care?	
i)Cancer patients	25(11.4)
ii) Organ failure patients like Heart, Lung or Kidney failure	10(4.5)
iii)Senility	18(8.2)
iv)Stroke or spinal cord injury	8(3.6)
v)Children with cerebral palsy or birth defect	4(1.8)
vi)All of the above	153(70)
3. Who can provide palliative care?	
i)Physicians /Doctors	12(5.5)
ii) Nurses	8(3.6)
iii) Physiotherapists	7(3.2)
iv) Social workers	4(1.8)
v) Volunteers	3(1.3)
vi) Family members	5(2.9)
vii) Community Health workers	2(0.9)
viii) All of the above	177(81)
4. Palliative care can be provided at?	
i)Hospital	50(22.9)
ii)Home	27(12.3)
iii)Hospice	12(5.5)
iv)All of the above	129(59)
5. Palliative care should be started at?	
i)After all treatments failed to cure the disease (Please Add)	80(36.6)
ii)At the terminal stage of the disease	60(27.5)
iii)At the time of diagnosis	48(22)
iv)Do not know	30(13.7)
6. The Right approach to manage chronic pain in palliative care is ?	
i)By the Clock	11(5)
ii)By the Mouth	118(54)
iii) By the Ladder	2(0.9)
iv) All of the above	87(39.9)
7. In WHO Ladder, Paracetamol is the main drug in ?	
i)Step I	99(45.4)
ii) Step II	17(7.7)
iii) Step III	4(1.8)
iv)Do not know	98(44.9)
8. What are the Barrier (s) to palliative care?	
i)Lack of awareness among policy-makers, health professionals and the public about palliative care	23(10.5)
ii)Cultural and social barriers, such as beliefs about death and dying	10(4.5)
iii)Misconceptions about palliative care	8(3.6)
iv)Limited or non-existent training on palliative care for health professionals	21(9.6)
iv)All of the above	156(71.5)
9. Do Palliative care continues even after death of the patient?	
i) Yes	26(11.9)
ii) No	146(66.9)
iii) Don't know	46(21)
10. During communication with palliative care patients, what is the most important approach?	
i) Reassure	77(35.3)
ii) Active listening	110(50.4)
iii) Normalize	19(8.7)

iv) Don't know	12(5.5)
11. "Why this has happened to me "is?	
i) Spiritual Pain ii) Psychological pain iii) Don't know	46(21) 150(68.8) 22(10)
12) Do we have a National Program on Palliative Care?	
i) Yes ii) No iii) Don't know	134(61.4) 6(2.7) 78(35.7)

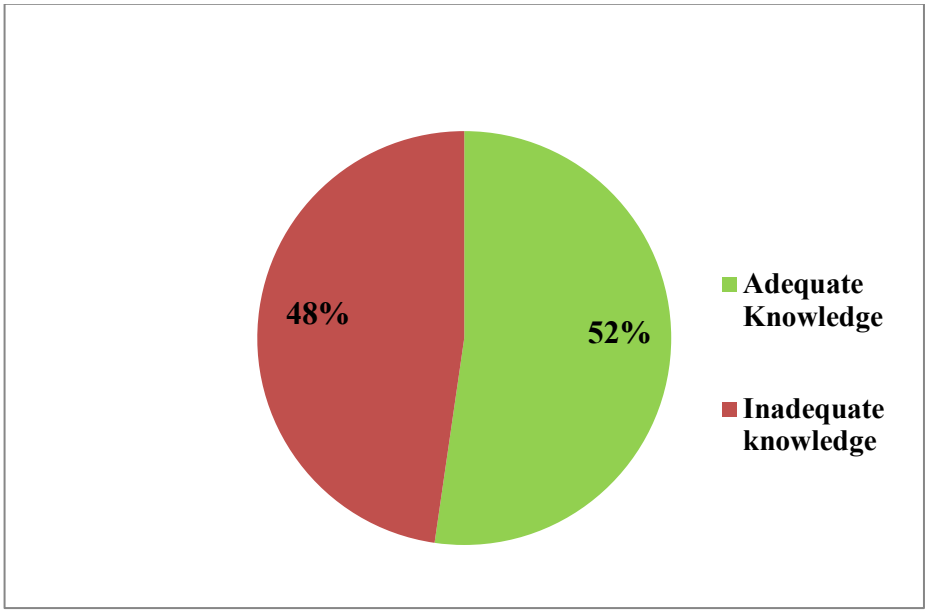

Figure 1: Level of knowledge of the participants on Palliative care

Around 71.5% of the participants responded that the barriers to palliative care could be due to lack of awareness among the policy makers, health professional and the public about palliative care, cultural and social barriers, such as beliefs about death and dying, misconceptions about palliative care, limited or non-existent training on palliative care for health professionals. Only 26 students (11.9%) believe that palliative care continues even after death of the patient while majority (66.9%) considers that it end with the death of the patient. Almost half (50.4%) of the participants mentioned that active listening is the most important approach while communicating with palliative care patients. While others responded reassurance (35.5%), normalizing (8.7%) and (5.5%) of the students have no idea about it. Only 21% of the participants understand the meaning of Spiritual pain in patients requiring palliative care. More than half (61.4%) of the students are aware that India have a National Program on Palliative care while 35.7% of students have no idea about it. There was a statistically significant association with the level of knowledge on palliative care with religion and current position/semester of the students. However, no statistically significant association was found with the gender, religion and place of residence of the participants with the level of knowledge.

Discussion

This study aimed to evaluate the knowledge of palliative care among undergraduate medical students and externs of SAHS. Majority (96.9%) of the students have heard of Palliative care which could be due to the students coming across the topic from books, CME's, social media and other sources. The knowledge of palliative care was more among students in 1st and 3rd semester as compared to the externs. The finding of our study could be due to the participation in CME on Palliative care conducted in other medical colleges of the state. While the FMG externs might not have the same level of exposure. Similar finding was observed by Alam T et al where students reported higher theoretical knowledge of palliative care concepts as compared to interns [15]. While in study done by Pandey V et al among 112 medical interns, 50 (44.6%) had an excellent grade of knowledge regarding palliative care [9].

A good number of students (74.3%) in our study are aware that the purpose of palliative care is to improve the quality of life. While in studies by Kumar improving quality of life (46.4%) and relief of pain (30.5%) were mentioned as the main purpose of palliative care. Around a quarter had misconceptions that palliative care hastens death or

prolongs life of a patient [17] (Please change it to 17). Also in studies done by Sujatha et al at Coimbatore in South India, 68% of medical students assumed that palliative care was to treat only pain, 8% felt it hastens death and 42% felt it prolongs life of a patient [16]. In our study, 70% of the participants have good knowledge on diseases requiring palliative care. While in study done by Kumar P et al [17] the awareness was found to be less. Except cancer (88.6%), many other diseases like AIDS (28.6%), Spinal trauma (11.6%), XDR TB (5.6%) and Coma (4.5%) requiring palliative care were not known. Sadhu S et al [18] in their study among undergraduate medical students reported 67.5% feel that all dying patients need palliative care. Only 22% of the participants in our study have the right concept that palliative care has to be provided at the time of diagnosis of a life-threatening/limiting illness. Similar findings were observed by Kumar P et al [17] where most of the participants responded that palliative care is provided at the late stage of disease. Only 15.8% said palliative care starts from the time of diagnosis. In a country like India, home based palliative care can serve as an ideal model in reducing hospital stay and caregiver burden due to constraint of hospital beds, manpower and other resources [17]. More than half (59%) of the students in our study have the right knowledge that palliative care can be provided at home, hospital and hospice. In study done by Manuja et al in Punjab, 83.9% incorrectly believed that palliative care is strictly a hospital-based service [19]. Around 59% felt that home is the ideal place to provide care in a study by Bhadra et al at Kolkata [20]. Around 45.4% of the participants in our study responded correctly that Paracetamol serves as the foundation Step I on the WHO-Analgesic Ladder for chronic pain while majority do not have the correct knowledge. Similar finding was observed in study done by Kumar P et al where about 54.7% of the students were unaware of main drugs in Step I & II in WHO Pain Ladder [17]. More than half (54.5%) of the participants in our study responded that medicine for chronic pain should be given by mouth only. Similar finding was observed in study done by Giri et al where 107 (60.1%) of students believed that most preferable route of administration in palliative care for treating chronic cases is oral [21].

Table 5: Association of Level of knowledge of the participants with socio-demographic characteristics (n=218)

Socio-demographic characteristics	Level of knowledge		X^2 Value	P-value
	Adequate n (%)	Inadequate n (%)		
Gender				
Male	40(48.7)	42(51)	1.69	0.42
Female	73(54.0)	62(45.9)		
Others	1(100)	0		
Religion				
Hindu	79(54.8)	65(45.1)	15.91	**0.001***
Muslim	10(41.6)	14(58.3)		
Sanamahi	20(71.4)	8(28.5)		
Christianity	5(22.7)	17(77.2)		
Residence			0.14	0.7
Urban	83(55.7)	66(44.2)		
Rural	31(44.9)	38(55.0)		
Position				
1st semester	54(56.8)	41(43.1)	19.65	**0.00***
3rd semester	4565.2)	24(34.7)		
Interns	15(27.7)	39(72.2)		

***Chi-square test: Statistically significant, (p<0.05)**

Good communication is one of the essential components in providing palliative care. It is necessary for establishing rapport and trust with patients to alleviate the emotional distress while aligning with the medical treatment. Almost half (50.4%) of the participants in our study believe that active listening is the most important aspect while communicating with palliative care patients. However 48.6% of the students in study by Kumar P et al [17] responded reassurance is the most important strategy in communication. Sujatha et al [16] reported that three fourth respondents felt prognosis has to be disclosed always and patient's wishes and choices were to be clearly communicated to family members.

Only 21% of the participants in our study are able to understand the spiritual pain. In study by Kumar P et al [17] two third (66.4%) respondents were able to describe spiritual pain. Majority of the participants (61.4%) in our study are aware that India have a National program on Palliative Care

(NPPC) while only 3.1% of the participants have the idea about it in study by Kumar P et al [17].

Strengths and Limitation: The study is the first ever study conducted among medical students in Manipur to assess the knowledge gaps on Palliative care. The study questionnaire was designed from the Module given by the NPPC under MoHFW. However there is limitation of generalizability of our study findings due to small sample size and non-random sampling method.

Conclusion

Nearly half of the participants have inadequate knowledge of palliative care. Incorporating palliative care as an integral part of the MBBS curriculum and conducting adequate training programs/continuing education will enhance the knowledge, skills and confidence of the future palliative care providers.

Acknowledgement: The authors would like to thank the Medical Social Workers (MSWs) of Department of Community Medicine, SAHS for their help in executing the study. We would like to acknowledge the Institutional Ethical Committee, SAHS for proving the ethical clearance of this study. We sincerely acknowledge the study participants of this study for their valuable participation.

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