

**Original Article**

# KNOWLEDGE OF PALLIATIVE CARE AMONGST UNDERGRADUATE MEDICAL STUDENTS IN RURAL MEDICAL COLLEGE OF MAHARASHTRA

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## ABSTRACT

**Introduction:** The introduction of palliative care in undergraduate medical and nursing training is a necessary step in the development of formal system of education and registration of palliative care in India. The present study attempted to understand the knowledge of undergraduate medical students pertaining to various aspects of palliative care.

**Material and Methods:** A structured modified pretested self administered questionnaire on palliative care was used to collect information.

**Results:** Overall poor knowledge (Mean score = 8.11 out of 17) was observed regarding palliative care. Good knowledge was observed amongst students regarding certain aspects like comprehensive approach of palliative care as 102(93.57%) students correctly stated that palliative care approach promotes not only physical but also psychosocial and spiritual well being. Nearly all (99.08%) students were well versed with components of good communications skills.

**Conclusion:** The study revealed inadequacies in the knowledge of undergraduate medical students pertaining to palliative care.

**Keywords:** undergraduate medical students, knowledge, palliative care

## INTRODUCTION

The concept of palliative medicine and hospice care has become increasingly important in the

last decades.<sup>1</sup> Palliative care is an approach that improves the quality of life of patients and their families facing the problems associated with life

threatening illness, through the prevention and relief of suffering by addressing physical, psychosocial and spiritual issues.<sup>2</sup>

The palliative care training is almost nonexistent in most of the health care training programme curricula.<sup>3</sup> An effective palliative care service delivery requires an informed health sector with health care providers in all areas, aware and committed to benefits that palliative care offers to people who are dying.<sup>3</sup>

The introduction of palliative care in undergraduate medical and nursing training is a necessary step in the development of formal system of education and registration of palliative care in India.<sup>4</sup>

Several studies have shown that basic knowledge regarding palliative care amongst medical students was inadequate and it needs to be reinforced. Focused training in palliative care and end of life teaching methods is essential to strengthen the knowledge and skills of medical students regarding palliative care.<sup>5</sup>

The present study attempted to understand the knowledge of undergraduate medical students pertaining to various aspects of palliative care.

## MATERIAL AND METHODS

The study was conducted amongst all 109 undergraduate final year medical students who had attended 'Palliative Medicine Orientation Programme' at Krishna Institute of Medical Sciences, Karad. A written informed consent was obtained from every student participated in study.

A Structured modified pretested self administered questionnaire was distributed to all 109 students before 'Palliative Medicine Orientation Programme.' It consisted of 20 questions of which 17 questions were close ended and remaining three were open ended type. They were allowed 20 minutes to complete questionnaire under strict supervision.

Out of three open ended questions; only 7 (6.42%) students could mention the names of palliative care centres in India while none (100%) of the students had attended any workshop or seminar or any other activity on palliative care before. Very few students i.e.14.67% felt competent in dealing with delivering bad news. For these three questions, no scoring was given.

The remaining 17 questions were assigned scoring system. One score was given for correct response and zero for incorrect response. The mean score equal or below nine marks was classified as having poor knowledge while score more than nine out of seventeen was considered to have good knowledge.

## RESULTS AND DISCUSSION

In present study, of 109 students, 42 were boys and 67 were girls. All (100%) students were in age bracket of 21-24 years with mean age of 21.85 years. In present study, poor knowledge was observed amongst undergraduate medical students regarding palliative care i.e. Mean score (S.D.) out of 17 = 8.11(1.69). The questions were grouped under two broad categories: Basic concepts and Communication skills in palliative care and Management of pain and other symptoms.

### Basic concepts and Communication skills in Palliative Care:

In present study, good knowledge was observed amongst students regarding comprehensive approach of palliative care as 102(93.57%) students correctly stated that palliative care approach promotes not only physical but also psychosocial and spiritual well being.

Fifty seven (52.29%) students correctly mentioned that HIV/AIDS is a not a palliative care emergency. Delirium and spinal cord compression were not considered as palliative care emergencies by 22.93% and 19.26% of students respectively while 6 (5.50%) students believed that haemorrhage is also not palliative care emergency.

Twenty one (19.26%) students said appropriately that palliative care is needed for patients with end stage heart failure. Comparatively better knowledge was observed amongst medical students of Manipal University<sup>3</sup> where 55% of them agreed that patients with end stage heart failure needs palliative care. However misconceptions regarding basic concepts of palliative care were found to be more in present study as 43(39.44%) students thought that palliative care is required three days after gall bladder surgery with pain while 19(17.43%) believed that palliative care is indicated only in cancer patients. Twenty six (23.85%) students thought that palliative care is needed only for geriatric population.

**Table 1: Basic Concepts and Communication Skills in Palliative Care (n=109)**

Question	Correct Option	Correct responses (%)
The palliative care approach aims to promote	Physical, psychological and spiritual aspects (all of the above)	102(93.57%)
Palliative care is indicated in following disease	HIV/AIDS, neurological disorders, end stage renal disease ( all of the above)	104(95.41%)
HIV/AIDS does not require palliative care	False	102(93.57%)
Following is not a palliative care emergency	HIV/AIDS	57(52.29%)
In palliative care, autonomy refers to	Patient's right to ask for whatever treatment they choose	26(23.85%)
Following is not a part of good communication	Judgemental attitude	108(99.08%)
Palliative care is needed for	End stage heart failure	21 (19.26%)
Palliative care multidisciplinary team generally consists of all except	Radiotherapist	21(19.26%)
Euthanasia is	Treatment that adopts adequate palliative care offered to patients during the final moments of life with judicial support	107(98.16%)

The palliative care is an approach different from euthanasia, the practice of abbreviating the life of an incurable patient in a controlled manner assisted by a specialist which is considered a crime by the Medical Code of Ethics.<sup>6</sup> The knowledge of students pertaining to this was found to be good as 107(98.16%) students answered it correctly while 2(1.83%) student said that euthanasia is a slow anxious death with much suffering. Comparatively low level of knowledge was observed in medical students at Universidade Nove de Julho, Brazil <sup>6</sup> where out of 50 students, only 42% of them were aware about the concept of euthanasia.

Very few students i.e.14.67% felt competent in dealing with delivering bad news. G.Pohl et al.<sup>1</sup> reported that only 29.1% of medical students in Austria felt competent for dealing with delivering bad news.

Medical social worker, Nurse and Occupational therapist were correctly identified as a part of palliative care multidisciplinary team only by 21(19.26%) students. Majority of students thought radiotherapist who is seldom part of multidisciplinary palliative care team. A similar study in Manipal <sup>3</sup> revealed better knowledge amongst medical students where only 10.4% of students said that radiotherapist is also part of multidisciplinary team of palliative care.

**Table 2: Management of Pain and other Symptoms (n=109)**

Question	Correct Option	Correct Responses (%)
WHO step analgesic ladder consists of three steps	True	99 (90.82%)
The right prescription dose of morphine is	5mg q4hr	11(10.09%)
Commonest cause of Diarrhoea in Palliative Care setting is	Imbalance of laxative therapy	29(26.60%)
First line of drug for Opioid induced Nausea and Vomiting is	Haloperidol	3(2.75%)
Drug of choice in Delirium is	Haloperidol	32(29.35%)
Following Opioid drug is not recommended in Palliative Care	Pethidine	21 (19.26%)
Following is not a true about Morphine	Morphine is a poor oral analgesic	21(19.26%)
Common side effect of morphine	Constipation	16(14.67%)

#### Management of pain and other symptoms:

More than half of students i.e. 99 (90.82%) knew about WHO 3 step analgesic ladder pattern. High level of knowledge regarding this fact was observed in present study as compared to knowledge of medical students of School of

Medical Sciences, University Sains Malaysia <sup>7</sup> where only 25% of them could mention rightly regarding WHO three step analgesic ladder pattern.

Present study revealed low level of knowledge about morphine. Only 11(10.09%) students

could mention the right prescription dose of morphine. More than two third (80.73%) of students thought that morphine is a poor oral analgesic. The pre test study findings are comparable to the observations amongst medical students at University of Kentucky, USA<sup>8</sup> where 40% of students agreed that morphine is poor analgesic.

Although clinically significant respiratory depression can be side effects of oral opioids, it is very uncommon when opioids are titrated to pain relief.<sup>8</sup> Majority of students (77.98%) acknowledged respiratory depression, 16(14.67%) opted constipation and 3(2.75%) preferred drowsiness as common morphine side effects. Other options were selected by 5(4.57%) students.

Present study findings are comparable to the study findings of Sakshi Sadhu et al.<sup>3</sup> where 80.8% and 77.3% of medical students in Manipal University stated constipation and drowsiness as common side effects of morphine respectively.

The commonest cause of diarrhoea in Palliative Medicine is imbalance use of laxatives.<sup>2</sup> This was correctly stated by only 29(26.60%) students. There is no place for use of pethidine in palliative care because of its short duration of action and toxic profile of its metabolite i.e. nor-pethidine.<sup>9</sup> Only 21 (19.26%) students considered that pethidine should not be used in palliative medicine. However, 44(40.36%), 40(36.69%) and 4 (3.66%) students opted for Fentanyl, Tramadol and Morphine respectively.

Haloperidol is also preferred drug of choice in management of delirium. This was correctly identified by 32(29.35%) students. However, 37(33.94%), 17(15.59%) and 23 (21.10%) students opted for Diazepam, Lorezapam and Olanzapine respectively.

## CONCLUSION

The study revealed inadequacies in the knowledge of undergraduate medical students pertaining to palliative care. However students showed good knowledge about certain aspects of palliative care like comprehensive approach, indications of palliative care, communication skills, euthanasia and WHO three step analgesic ladder. It reiterates the need for active incorporation of palliative medicine education in medical colleges and hospitals to strengthen the knowledge and skills of medical students

regarding palliative care. Teachers in medical schools can play a pivotal role in imparting palliative care education by using various multipronged methods of teaching.

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## REFERENCES

1. G. Pohl, C.Marosi, K.Dieckmann, G.Goldner, K.Elandt, M.Hassler et al.Survey of Palliative Care Concepts Among Medical Students and Interns in Austria: A Comparison of the Old and the New Curriculum of the Medical University of Vienna. *Palliative Care: Research and Treatment*. 2008; 2: 1-7.
2. Handbook for Certificate Course in Essentials of Palliative Care, 3<sup>rd</sup> ed.India: Institute of Palliative Medicine for Indian Association of Palliative Care; 2009. p-13-14.
3. Sakshi Sadhu, Naveen Sulakshan Salins , Asha Kamath. Palliative Care Awareness among Indian Undergraduate Health care Students: A Needs Assessment Study to Determine Incorporation of Palliative Care Education in Undergraduate Medical, Nursing and Allied Health Education. *Indian Journal of Palliative Care*.2010; 16: 154-59.
4. Yamuna Velayudhan,Vasudeva Upadhyaya, Shoba Nair, Meena Aldo.Introduction of Palliative Care into Undergraduate Medical and Nursing Education in India: A Critical Evaluation. *Indian Journal of Palliative Care*.2004; 10 (2): 55-60.
5. Sameer Valsangkar, Trupti N Bodhare, Shripad B Pande, Samir D Bele, B Sitarama Rao. Evaluation of Knowledge among Interns in a Medical College regarding Palliative Care in People Living with HIV/AIDS and the Impact of a Structured Intervention. *Indian Journal of Palliative Care*.2011; 17 (1): 6-10.
6. Sandra Alamino Felix de Moraes, Maisa Carla Kairalla.Assessing knowledge of Medical undergraduate students on palliative care in end-stage disease patients. *Einstein*. 2010; 8:162-67.
7. B M Biswal, A Zakaria, A A Baba, R Jaafar. Assessment of Knowledge, Attitude and Exposure to Oncology and Palliative Care in Undergraduate Medical Students. *Med J Malaysia*.2004; 59(1):78-83.
8. Sloan PA, Montgomery C, Musick D.Medical Student's Knowledge of Morphine for the Management of Cancer Pain. *Journal of Pain and Symptom Management*.1998; 15 (6):359-64.
9. The IAHPC Manual of Palliative Care.2<sup>nd</sup> Edition. Available from [http://www.hospicecare.com / manual/ toc-main / html](http://www.hospicecare.com/manual/toc-main/html) (Last accessed on 2012, July 25).