

Impact of the educational session on knowledge and attitude toward palliative care among undergraduate medical, nursing, and physiotherapy students: a comparative study

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ABSTRACT

Background: Palliative care forms an integral part in the treatment of terminally-ill patients. To care for dying patients requires a thorough medical education, which is lacking in today's undergraduate curriculum. The objective was to compare the attitude and knowledge about palliative care among the undergraduates of medical, nursing, and physiotherapy before and after an educational session on palliative care. **Methods:** A pre-validated 20-point questionnaire on attitude and knowledge about palliative care was distributed to 2nd year medical (22), nursing (28) and physiotherapy (20) students before and after palliative care educational session. Results obtained were compared within and in between the groups. Paired t test was used for within the group and one-way ANOVA for in between the group comparison. p-value <0.05 was considered to be statistically significant.

Results: All groups showed statistically significant improvement in knowledge, attitude, and pain management scores following palliative care educational session. The pre-session evaluation showed that physiotherapy students had better knowledge and attitude about palliative care. Pre-educational assessment of knowledge about pain management was similar among the three groups statistically. After the session, mean improvement in palliative care knowledge scores was more in medical, followed by physiotherapy and nursing students. On inter-group comparison, statistically significant improvement in knowledge scores was seen in medical and physiotherapy students compared with nursing students. All three groups showed statistically similar improvement in attitude and pain management scores.

Conclusion: Significant improvement was seen in attitude and basic knowledge about palliative care in the students following an educational session. Therefore, including palliative care in the curriculum enables them to deliver appropriate end-of-life care to patients.

Keywords: Palliative care, Medical curriculum, Undergraduates, Pain management

INTRODUCTION

Palliative care as defined by WHO is "an approach that improves the quality of life of patients and their families facing the problems associated with life-limiting illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual".¹ It is essentially directed at providing relief to terminally-ill and debilitating patients through management of pain and symptom. The goal of palliative care is to maintain the highest possible quality of life for as long as life remains.² It neither hastens nor postpones death, but focuses on the compassionate care for the living. It is a

highly structured system aiming to deliver care to patients from diagnosis until death and bereavement care for the family. It is best administered by a multi-dimensional, inter-disciplinary team comprising of doctors, nurses, physiotherapists, counselors, pharmacists, social workers, volunteers, and family members.³ All of them play an equally vital role in providing physical, functional, social and spiritual care to patients.⁴

Over the last 20 years, there has been an increase in life expectancy resulting in an increase in the aging population and prevalence of advanced cancer in India. It is estimated that over one million new cancer cases occur every year, with over 80% presenting in stage III and IV.³ About 50% of

all cancer patients die suggesting that every second person will eventually need palliative care.⁵ Every hour more than 60 patients die in India from cancer and in pain.⁶

Studies show that doctors and health care professionals lack the ability to provide end-of-life care and cater to the needs of the dying patients due to the inadequate knowledge in administering the adequate dosages of analgesics and sedatives.⁷ Inexperienced clinicians often hesitate to prescribe the appropriate dosages of opioids for fear of addiction among patients leading to under-treatment of cancer pain.⁸ Though nearly one million cancer patients in India need oral morphine for pain relief, only 0.4% patients receive it.⁹ In addition to advanced cancer, palliative care is increasingly used in patients with diseases such as chronic progressive pulmonary disorders, renal diseases, chronic heart failure, progressive neurological conditions, stroke, AIDS, and other debilitating diseases.^{10,11}

Despite significant Indian population requiring palliative care, the dying patients are inadequately addressed due to almost nonexistent palliative health care training in the curriculum. Proper palliative care education gives rise to adequate knowledge about palliative care and pain management, in turn leading to appropriate clinical practice.⁷ Therefore, it is important to reinforce the need and educate health care professionals during their training period itself.⁵

Hence, this study was taken up to compare the attitude and knowledge about palliative care and pain management among the undergraduate students of medical, nursing, and physiotherapy before and after an educational session.

Objectives

To compare the attitude and knowledge of palliative care and pain management among the undergraduates of medical, nursing, and physiotherapy before and after palliative care educational session.

METHODS

This is a questionnaire-based study carried out in Kempegowda Institute of Medical Sciences, Bangalore. With prior approval from Institutional Ethics Committee, a pre-validated 20-point questionnaire, comprising of 9 questions on palliative care knowledge, 7 on pain management, and 4 on attitude was used as a tool. The 2nd year students of MBBS, B.Sc Nursing and BPT from our institution participated in the study after an informed consent was obtained from them. Educational session for the three groups was conducted separately for 3 hrs each. Pre-session questionnaire was distributed to the students and the response was obtained. This was followed by an educational lecture with PowerPoint presentation by the faculty trained in palliative care. The topics comprised of introduction to palliative care, its various aspects, goal, management of

symptoms and pain. Later, post-lecture response to the questionnaire was taken. The results were analyzed and compared. Comparison within the group was done using paired t test and one-way ANOVA was used for comparison between groups using SPSS version 21 software.

RESULTS

A total of 70 2nd year undergraduate students participated in the study. Of second which 22 were from medical, 28 from nursing, and 20 from physiotherapy. The response rate was 100%.

Table 1 shows the demographic data of the students who participated in the study.

Table 2 shows pre-session and post-session mean scores of knowledge, pain management and palliative care attitude of medical, nursing and physiotherapy students. There was a statistically significant improvement in the post-session scores of all the three parameters in all the three groups.

Figure 1 shows the comparison of pre-session and post-session knowledge scores of all the three groups. Before the session, out of the total nine questions, physiotherapy students scored the highest mean score of 4.80, followed by nursing (3.82), and medical students (3.23). After the session, there was a statistically significant improvement in the mean scores in all the groups with medical students scoring the highest mean score of 7.45 followed by physiotherapy (6.95) and nursing students (5.68). On pre-session inter-group analysis, physiotherapy students had statistically significant better knowledge about palliative care than medical students ($p = 0.02$). Inter-group analysis of post-session scores showed that statistically significant improvement in the knowledge scores was seen in medical students when compared with nursing ($p = 0.0001$) and physiotherapy students when compared with nursing ($p = 0.005$).

Figure 2 shows the comparison of pre-session and post-session pain management scores. Of the total seven questions, before the session, students of all the three groups scored almost equally. After the session, there was a significant improvement in the mean scores in all the three groups. On inter-group comparison, the results were statistically similar in between the groups before and after the session.

Table 1: Demographic data.

	Total (n)	Age (years)*	Gender	
			Male	Female
Medical	22	20.23±0.99	13	09
Nursing	28	19.46±0.56	00	28
Physiotherapy	20	19.85±0.48	04	16

*Age in years is expressed as Mean ± SD

Table 2: Comparison of pre-session and post-session scores in medical, nursing and physiotherapy students.

Students	Parameters	Pre-session (Mean±SD)	Post-session (Mean±SD)	95% confidence interval of difference	T	p-value*
Medical (n=22)	Knowledge (9)	3.23±1.57	7.45±1.37	-5.23, -3.22	-8.75	0.0001
	Pain management (7)	1.55±1.18	5.73±1.39	-4.95, -3.41	-11.30	0.0001
	Attitude (4)	1.55±1.22	3.36±0.73	-2.42, -1.21	-6.23	0.0001
Nursing (n=28)	Knowledge (9)	3.82±1.79	5.68±1.49	-2.69, -1.03	-4.60	0.0001
	Pain management (7)	1.54±1.29	5.36±1.28	-4.60, -3.04	-10.01	0.0001
	Attitude (4)	2.18±1.12	3.14±0.93	-1.58, -0.34	-3.20	0.004
Physiotherapy (n=20)	Knowledge (9)	4.80±2.17	6.95±1.05	-3.27, -1.03	-4.02	0.001
	Pain management (7)	1.55±0.89	6.10±0.72	-5.07, -4.13	-20.68	0.0001
	Attitude (4)	2.55±1.32	3.40±0.75	-1.60, -0.10	-2.38	0.0028

Values are expressed as mean ± SD. P value* indicates statistical significance (<0.05)

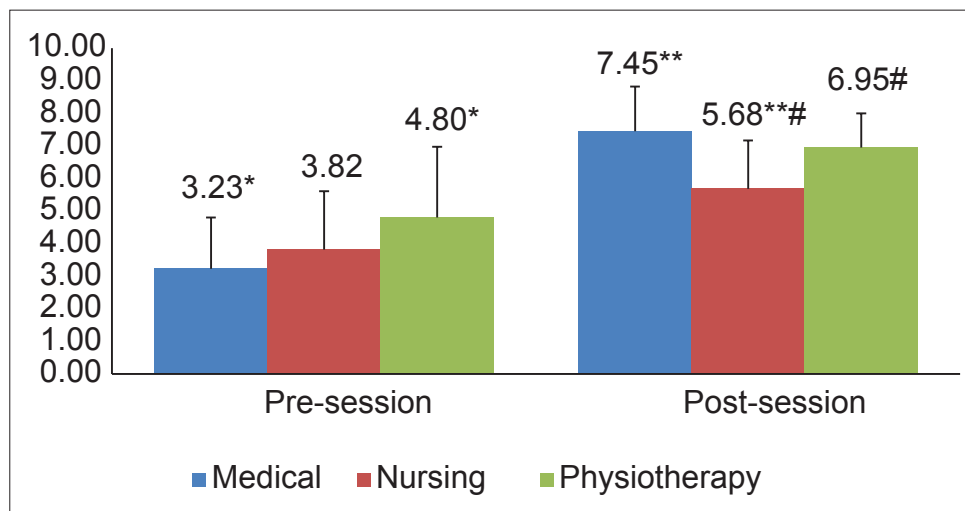


Figure 1: Inter-group comparison of knowledge scores (9) before and after the educational session using one-way ANOVA. Values are expressed as mean ± SD. *p=0.02, **p=0.0001, #p=0.005.

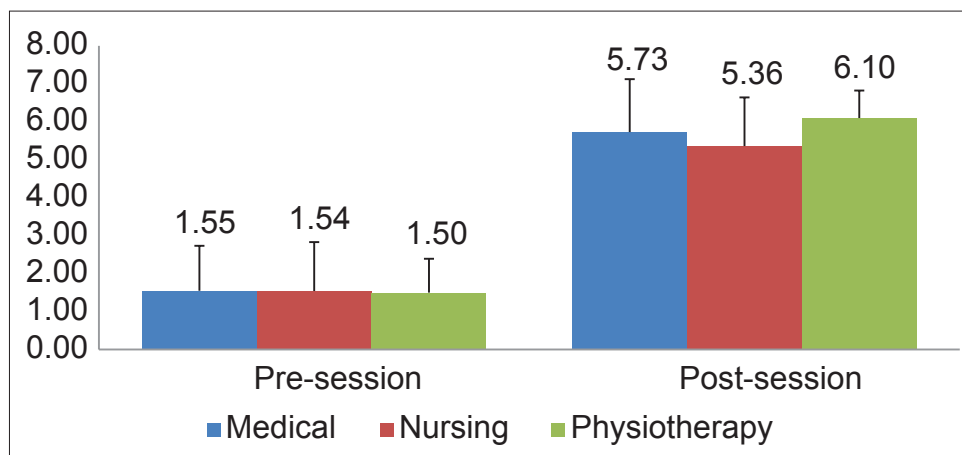


Figure 2: Inter-group comparison of pain management scores (7) before and after the educational session using one-way ANOVA. Values are expressed as mean ± SD.

Figure 3 shows the comparison of pre-session and post-session attitude scores in all the three groups. Before the session, physiotherapy students scored the highest mean of 2.55 followed by nursing (2.18) and medical students (1.55). After the session, there was a statistically

significant improvement in the mean scores in all the three groups. Pre-session inter-group analysis showed that physiotherapy students had better attitude toward palliative care than medical students (p = 0.025). Post-session inter-group analysis showed similar improvement in all the

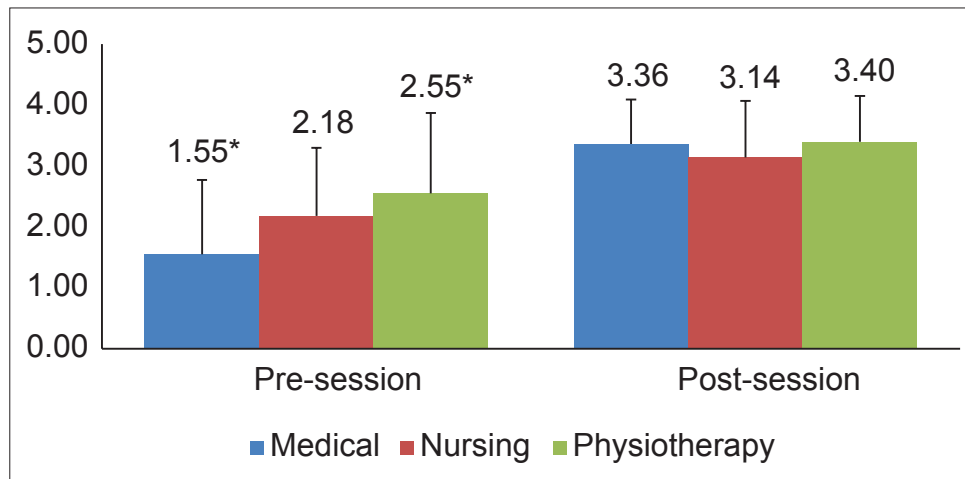


Figure 3: Inter-group comparison of attitude scores (4) before and after the educational session using one-way ANOVA. Values are expressed as mean \pm SD. * $p=0.025$.

three groups without statistically significant difference between them.

DISCUSSION

In today's palliative care scenario, there is a need for a comprehensive medical curriculum, which includes palliative care education to enable students to provide the proper end-of-life care to patients. In our study, out of 70 undergraduate students approached, there was 100% response rate indicating their interest in knowing about palliative care.

In the pre-educational session, there was an inadequate knowledge about palliative care and pain management with lack of positive attitude indicating the current almost non-existent awareness about palliative care in the medical students.⁷ Following the session, there was an overall significant improvement in knowledge, pain management and attitude scores in all the three groups (Table 2) showing the impact of the session and ability of the students in gaining knowledge about palliative care, which was similar to previous studies.^{12,13}

The knowledge scoring was based on students' awareness about the term palliative care, approaches and goal of palliative care and also, any need for psychological, emotional, spiritual support along with medical treatment. The pre-session and post-session knowledge scores were analyzed. Before the educational session, physiotherapy students had better knowledge about palliative care than medical students due to their early clinical exposure compared with other groups. After the session, medical and physiotherapy students improved over nursing students (Figure 1).

Pain management scoring was based on students' knowledge about morphine, its dose, route of administration, side-effects, its concomitant use with laxatives and fear of withholding morphine due to respiratory depression and

addiction in terminally-ill patients. Furthermore, the scoring was based on whether the use of analgesics hasten death and can other drugs be continued, while the patient receives morphine. Before the session, the knowledge was equally inadequate in all the three groups depicting the inadequate use of morphine.⁷⁻⁹ After the session, the students' knowledge about morphine improved.¹³

Attitude scores were based on the students' outlook toward the care and support given to terminally ill-patients, psychosocial and emotional support, whether the patients can be allowed to express emotions like anger, grief during palliative care treatment. Before the session, there was lack of positive attitude among the three groups toward palliative care. There was a positive change in the attitude of students toward palliative care after the session indicating the impact,¹³ though it was a single didactic session. Repeated intensive programs like workshops, small group activities, interactions with patients and their families can highly influence the perceptions and leave a lasting impact.¹³

Our study showed significant improvement in knowledge, pain management, and attitude scores toward palliative care following an educational session with certain limitations such as small sample size, selection of only 2nd year undergraduates, single educational didactic session and only an immediate assessment of the impact of educational session.

CONCLUSION

The study demonstrates the importance to reinforce the need to include palliative care in the curriculum and educate students during the training period itself. Repeated emphasis on these aspects can lead to an improved attitude of future health care professionals toward palliative care.

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