

# Knowledge, attitude and self perceived competency in provision of palliative and end of life care in resident doctors at tertiary care government hospital

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## Abstract

**Background:** Resident doctors frequently deal with patients with life limiting illness and are unprepared to manage common pain and non-pain symptoms, communicate effectively about end-of-life care to the patient and family, and discuss ethical and legal issues of end of life care. This study focusses on understanding the knowledge, attitude and self perceived competency among resident doctors and whether knowledge and attitude affect their self perceived competency in providing palliative and end of life care. **Material And Methods:** A survey based prospective observational study was conducted at B.J. Government Medical College and Sassoon general hospital, Pune in Sep-Oct 2018. The residents from department of Surgery, Medicine, Obstetrics and Gynecology and Anesthesiology were selected by convenience sampling. 172 self-administered structured questionnaires were distributed among residents currently working in the Department of Surgery (n=48), Medicine (n=48), Obstetrics and Gynecology (n=44) and Anesthesiology (n=32). Chi square test, ANOVA and Spearman's correlation were used for statistical analysis of the results. **Results:** Resident doctors had limited knowledge but favorable attitude towards the field of palliative care and end of life care. There was no correlation between knowledge and attitude towards providing palliative and end of life care with self perceived competence among resident doctors. **Conclusion:** There are plausible gaps in the knowledge and attitude of residents in palliative and end of life care. There is a dire need for educational interventions in undergraduate and postgraduate training programs towards palliative and end of life care. **Key Words:** Palliative care, End of life care, knowledge, attitude, self perceived competency, residents

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## INTRODUCTION

Palliative Care is being increasingly recognized as a vital part of patient care for patients with life limiting illness. It involves pain and symptom management, psychosocial support to the patient and their families and ethical decision-making. Despite the existence of palliative care services in India for over three decades, less than 1% of India's 1.2 billion population has access to palliative care.<sup>1</sup> Education of health care professionals is one of the greatest barriers for improving access to palliative care in India.<sup>2</sup> Current health care education focuses entirely on cure, care is almost compromised or nonexistent in end-of-life settings. Physicians are reluctant to discuss end of life care with their patients and often lack the knowledge

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and skills for essential communication and pain and physical symptom-control in palliative care.<sup>3</sup>In an acute hospital setting, residents face numerous barriers like involvement of multiple specialists with conflicting goals of management, limited time spent by consultants in wards, personal discomfort or unpreparedness to deal with emotional, psychosocial and spiritual issues with dying patients and increased work load, limited time to build rapport and discuss goals of end of life care with patients and families.<sup>4</sup>There is an increasing need for formal palliative care curriculum to influence resident's knowledge and attitudes to improve end of life care. There is deeper recognition of need for providing basic palliative interventions and identifying patients who would benefit from specialized palliative consultation services by the residents. Previous studies have shown that increasing the knowledge and skills in end-of-life care will enhance the level of competence in this end of life care leading to more timely hospice referrals, less-aggressive care and better quality of life for patients.<sup>5</sup>Limited literature has been found regarding assessment of knowledge, attitude and self-perceived competence of residents in palliative and end of life care in Indian population and thus the study aims to assess whether attitude and knowledge affect the competence in providing palliative and end of life care in resident doctors.

## MATERIALS AND METHODS

A survey based prospective observational study was conducted at B.J. Government Medical College and Sassoon general hospital, Pune in Sep-Oct 2018. The departments were selected by convenience sampling. 172 self-administered structured questionnaires were distributed among residents currently working in the Department of Surgery(n=48), Medicine(n=48), Obstetrics and Gynecology (n=44) and Anesthesiology(n=32). Hard copies of the questionnaires were distributed to the residents through the head of the departments with a cover letter written by the primary investigator describing the goals of the study, name of contact person, and time frame of two weeks for completing and returning the questionnaire. A reminder was placed at the end of two weeks for the non-responders and due to low response rate, the deadline was increased to one month. Final questionnaires were collected at the end of one month and were used for data analysis. All the residents willing to participate were included in the study and unwillingness to participate were excluded from the survey. Consent was implied by voluntary participation. The proposal of the study was submitted to B. J. Medical College's Institutional Ethics Committee for validation and approval.

## Survey instrument:

Self-administered structured questionnaire was developed after extensive research and literature review in palliative and end of life care in resident doctors<sup>6,7,8,9,10,11,12,13</sup>. Survey questionnaire consisted of closed and open-ended questions. Survey questionnaire was divided into four parts apart from the socio-demographic profile of the respondents.

- The first part consisted of resident's experience with observing and providing end of life care and delivering bad news.
- Second part inquired about the knowledge of residents towards palliative and end of life care adapted from the previously validated Palliative Care Knowledge test<sup>9</sup> and palliative care Quiz<sup>10</sup> for nursing. The topics comprised philosophy of palliative care, pain management, symptoms other than pain and ethical issues
- Third part assessed the attitude of residents towards palliative and end of life care, by adapting the previously validated FATCOD B scale<sup>11</sup> for attitude towards palliative care. It comprised of psychosocial aspects of palliative care.
- Fourth part gathered the resident's self-confidence towards palliative and end of life care. It was assessed by self-assessment of competency and concern in end of life care by David Weissman<sup>12</sup> for items related to competency in communication, spiritual aspects of patient care and pain and physical symptom management.

The questionnaire was then pretested among a few residents with respect to comprehensibility, acceptance, duration and final corrections were made. The questionnaire was then delivered to residents of various departments. Survey questionnaire included 5 domains from EPEC (Education for Palliative and End of Life Care) modules: philosophy of palliative and end of life care, pain and other physical symptoms management, communication, psychosocial aspect of care, spiritual and ethical aspect of care. Knowledge with end of life care: were assessed with 11 questions using 2-point scale (1= correct answer and 0= wrong answer) with scores >75% indicating good knowledge, 50-75% indicating average knowledge and <50% indicating poor knowledge. Experience with end of life care scale: were assessed with two items with three-point scale (1=none; 2=1-9 and 3=>10). Items were summed into total score of quantifying prior experience with providing end of life care (range 2-6) with higher scores indicating more experience. Attitude towards end of life: four items were scored on a four-point scale (1 = strongly disagree; 4 = strongly agree), and three items were scored on a five-point scale (1 = never; 5 = always). Ratings of seven

items were summed to create a total attitude score ranging from 7 to 31. Scoring of one item was reversed so that higher scores indicate more positive attitudes toward end-of-life care. >50% score- favourable attitude and < 50% scores- unfavorable attitude Competence in end of life care: consists of 7 questions scored on a five-point Likert-type scale (1 = not very competent; 5 = very competent). Questions included perceived competence in the following areas: (1) communication, (2) pain and other symptom management, and (3) comfort with emotions. Total score ranged from (7- 35) Demographic variables: Respondents gender, age and specialty Previous experience with palliative care training, interest in Palliative care training and personal loss of loved one were also recorded.

**Statistics:**

Chi square test was used for comparison. All p values less than 0.05 was considered to be statistically significant. We used spearman’s correlation to see for any association with experience, knowledge and attitude towards PC. ANOVA was used for intergroup comparison of overall mean score values. All p values less than 0.05 was considered to be statistically significant. SPSS, 22.0 (IBM Analytics, New York, U.S.A) was used for statistical analysis.

**RESULTS**

Of these 172 residents, 60 residents completed and returned the questionnaire within stipulated time frame with the response rate of 35% (Surgery n=16, Medicine n=13, Obstetrics and Gynecology n=14 and Anesthesiology n=17). The majority of residents 35 (58%) were males and their mean age was 27.98 ± 2.87

years. In the open-ended questions, only 14 residents (23%) reported having a formal training of palliative care in medical school. With respect to interest in getting trained in palliative and end of life care, all the residents responded positively to it. Regarding experience in palliative and end of life care, 36 residents (60%) responded having personal experience with the death of loved one. Majority of residents 34 (56.7%) had observed or provided end of life care 1-9 times and 34 (56.7%) had delivered bad news 1-9 times. With respect to knowledge in palliative care, majority of residents 46 (76.7) correctly knew the philosophy of palliative care, 59 (99.9%) felt that multidisciplinary approach (doctor, nurse, psychologist, social worker) to patient better treats patient and family needs and 58 (96.7%) correctly knew the imminent signs of death in terminally ill patient. Regarding the knowledge of Pain management in Palliative and end of life care, majority of the residents 42 (70%) thought that opioids should be given in fixed doses and round the clock in cancer patients, 52 (86.7%) answered that opioids have to be followed by a bowel regime. Only 39 (65%) responded that long term use of opioids leads to dependency in terminally ill patients and 35 (58%) were of the opinion that morphine was used to relieve dyspnea in terminally ill. Only 28 (46.7%) residents correctly answered the steps in WHO ladder of pain management. With respect to ethical issues in palliative care, majority 41 (68.5%) were of the opinion that intravenous fluids will not be effective in alleviating dry mouth in terminally ill patient. 40 (66.7%) felt that honest information regarding the diagnosis and treatment of illness should be told to the patient. [Table no.1]

**Table 1:** Knowledge of palliative care

Parameters	Response	N	%	P value
Philosophy of palliative care	True	14	23.3	0.00
	False	46	76.7	
Opioids given round the clock in fixed doses	True	42	70.0	0.00
	False	18	30.0	
WHO Scale	True	32	53.3	0.12
	False	28	46.7	
Longterm use of Opioids leads to dependence	True	39	65.0	0.02
	False	21	35.0	
Morphine for dyspnea	True	35	58.3	0.20
	False	25	41.7	
Opioids to be followed by bowel regime	True	52	86.7	0.000
	False	23	13.3	
Worsening of Pain indicates progression of illness	True	33	55.0	0.21

	False	27	45.0	
IV infusion not effective in alleviating dry mouth	True	41	68.5	0.00001
	False	19	31.5	
Honest information regarding diagnosis should be told to the patient	True	40	66.7	0.00001
	False	13	33.3	
Multidisciplinary Team includes doctor, nurse, social worker and psychologist	True	59	99.9	0.000
	False	1	0.1	
Signsof imminent death	True	58	96.7	0.000
	False	2	3.3	

On the attitude towards palliative care items, majority of residents had positive attitude towards palliative and end of life care. 34 (56.6%) residents disagreed that little can be done to ease the suffering of the patient whereas only 10 (16.6%) residents strongly agreed to it. Majority of residents ‘sometimes’ felt that they failed as a doctor when their patient dies and ‘often or always’ change the subject when the patient asks “Am I dying”. 23 (38.3%) residents sometimes felt anxious to provide emotional support to family whereas 20 (33.35) residents never felt anxious to provide support. Majority of residents 36 (60 %) agreed that family interferes with the patient management and 37 (61.66%) agreed that it’s satisfying to work with patients who are more likely to improve. Majority of residents 54 (90%) agreed that training in Palliative care should be mandatory to physicians. [Table no.2]

**TABLE 2: Attitude related to palliative care**

Parameters	Response	N	%	P value
Little done to ease the suffering	Strongly disagree	15	25.0	0.423
	Disagree	19	31.7	
	Agree	16	26.7	
	Strongly agree	10	16.6	
Failed as a doctor when the patient dies	Never	15	25.0	0.000
	Rarely	11	18.3	
	Sometimes	30	50.0	
	Often	3	5.0	
	Always	1	1.7	
Change the subject when the patient asks, “Am I dying”	Never	6	10.0	0.04
	Rarely	10	16.7	
	Sometimes	11	18.3	
	Often	12	20.0	
	Always	21	35.0	
Family interferes with patient management	Strongly disagree	1	1.7	0.000
	Disagree	14	23.3	
	Agree	36	60.0	
	Strongly agree	9	15.0	
Feel anxious to provide emotional support to the family	Never	20	33.3	0.000
	Rarely	13	2.2	
	Sometimes	23	38.3	
	Often	3	50.0	
	Always	1	1.7	
Satisfying to work with patients who are likely to improve	Strongly disagree	8	1.3	0.000
	Disagree	15	25.0	
	Agree	29	48.3	

**Table 3: Self-perceived competency in palliative care**

	Strongly disagree	Disagree	Agree	Strongly agree	P value
Training in PC for physicians should be mandatory	1	5	17	37	0.000
	1.7	8.3	28.3	61.7	

On self-perceived competency of palliative and end of life care items, 27 (45%) felt competent / very competent and 25 (41.6%) felt not competent/somewhat competent in breaking bad news. 41 (68.3%) felt competent/ very competent in conducting family meeting to discuss end of life support. 32 (53.3%) felt competent/very competent discussing transition from curative to palliative care. 38 (63.3%) felt not competent/somewhat competent in addressing spiritual issues with patient and family. 32(53.4%) felt competent/very competent in addressing patients fears and giving hope. 30 (50%) residents were competent in addressing and managing pain and 35 (58.3%) were competent in managing non-pain symptoms.[Table no.3]

**Table 3**

Parameters	Response	N	%	P value
Breaking bad news	Not competent	12	20.0	0.77
	Somewhat competent	13	21.7	
	Uncertain	8	13.3	
	Competent	14	23.3	
	Very competent	13	21.7	
Conducting family meetings to discuss ending of life care support	Not competent	2	3.3	0.000
	Somewhat competent	10	16.7	
	Uncertain	7	11.7	
	Competent	18	30.0	
	Very competent	23	38.3	
Discuss transition from curative to palliative care	Not competent	5	8.4	0.000
	Somewhat competent	18	30.0	
	Uncertain	5	8.3	
	Competent	27	45.0	
	Very competent	5	8.3	
Address spiritual issues with patient and family	Not competent	18	30.0	0.03
	Somewhat competent	12	20.0	
	Uncertain	8	13.3	
	Competent	17	28.3	
	Very competent	5	8.3	
Addressing patient's fears and giving hope	Not competent	6	10.0	0.000
	Somewhat competent	16	26.7	
	Uncertain	6	10.0	
	Competent	22	36.7	
	Very competent	10	16.7	
Addressing and managing pain	Not competent	3	5.0	0.000
	Somewhat competent	18	30.0	
	Uncertain	9	15.0	
	Competent	23	38.3	
	Very competent	7	11.7	
Non pain symptom statement	Not competent	6	10.0	0.000
	Somewhat competent	14	23.3	
	Uncertain	5	8.3	
	Competent	26	43.3	
	Very competent	9	15.0	

The knowledge of residents towards palliative care scores ranged from 2 to 9 (mean  $7.466 \pm 1.66$ ). The Attitude of residents towards palliative care scores ranged from 14 to 25 (mean  $20.67 \pm 2.838$ ). The self-perceived competency of residents towards palliative care scores ranged from 11 to 29 (mean  $21.94 \pm 4.6$ ). [Table no. 4]

**Table 4:** Spearman's co relation of the knowledge, attitude with self perceived competency in palliative and end of life care

Parameters	P value	Beta value
Experience in Palliative Care and training in PC with self-perceived competency	0.7	2.1
Knowledge of palliative care and training in PC, with self-perceived competency	0.89	2.1
Attitude related to palliative care with self-perceived competency	1.78	-8.9
Self-perceived competency of Palliative Care and knowledge in PC and attitude related to PC, training in PC, witnessed kin's death, observed or provided PC	2.13	2.1

No association between any of the factors like experience, knowledge and attitude towards PC with self-perceived competency. Experience, knowledge and attitude in palliative and end of life care were not associated with self-perceived competency (p=2.13, beta value= 2.1) [Table no.5]

**Table 5:** Mean values for each parameters in the study

Parameter	Mean	Standard deviation
Experience	4.08	1.21
Knowledge	7.466	1.66
Attitude	20.62	2.83
Self-perceived competency	21.94	4.6

P= 0.98, there was no statistically significant difference between intergroup comparison of mean scores of experience, knowledge and self-perceived competency

## DISCUSSION

This study provides further documentation of limited confidence of resident doctors in dealing with palliative care issues, and their limited knowledge but favorable attitude towards the field of palliative care and end of life care during their residencies. The open-ended questions reveals that only 14 (23.3%) residents had a formal training in palliative care during their undergraduate medical school. Though palliative medicine has now been included as a specialty in post graduate training in India under MCI, there is need of an integrated course curriculum emphasizing on principles of palliative care in undergraduate medical education<sup>14</sup>. The most promising aspect was that all the residents were interested in getting trained in palliative care indicating the urge to know and participate more and more in this arena. In contrast to other studies Billing *et al*<sup>11</sup> 2012, Wolff *et al*<sup>15</sup> 2016, Fischer *et al*<sup>16</sup> 2003, experience in palliative and end of life care among residents was not related to self-perceived competency in providing palliative care. Personal experience with the death of loved one was also not associated with increased competency in providing palliative care. This is in accordance with study of Billings *et al* 2016(11), who have suggested that experience of personal loss is likely to be highly variable and thus may not uniformly affect perceptions of competence. Among the residents, 21 (35%) had good knowledge, 32 (53.3%) had average knowledge and 7 (11.6%) had poor knowledge about palliative care which is similar to findings in Bhatnagar S *et al*<sup>17</sup> where doctors 26.9% had good knowledge, 65.4 % had average knowledge and 7.7% had poor knowledge. Despite the use of opioids for relief of cancer pain by WHO cancer

unit in 1980, there are major gaps in the knowledge of residents regarding use of opioids in palliative care setting. This is in accordance with findings in Giri PA and *et al*<sup>18</sup> 2014 where (45.5%) incorrectly answered the WHO analgesic ladder. Only 65% residents were of the opinion that long term use of opioids leads to dependency in terminally ill patients which is a similar finding in Sujata R *et al*<sup>19</sup> 2017, where 52% residents believed morphine causes addiction on long term use in palliative care setting. Also 58.3% residents knew that morphine could be used to relieve dyspnea in terminally ill patients which is contrary to findings in Sujata R *et al*<sup>19</sup> 2017, where only 22% doctors knew use of morphine for relief of breathlessness in heart failure patient other than pain management. Regarding ethical and legal issues, 68.5 % correctly knew that intravenous fluids will not be effective in alleviating dry mouth in dying patients and 66.7 % believed that honest information should be told to the patient about diagnosis and prognosis of the illness. This is contrary to finding in Weber *et al*<sup>20</sup>, where only 36% correctly answered no IV hydration for dying patients and only 48% believed to tell prognosis in cancer. Inconsistent with other studies<sup>15,16,17</sup>, experience in palliative care among residents was not associated in increase knowledge of palliative care. Previous training in palliative care was also not related to increased knowledge of palliative care. Though 56.7% of the residents disagreed that little could be done to ease the suffering of terminally ill patients but more than 50% residents sometimes felt that they failed as doctors when their patient dies. Majority of residents often/always changed the subject when patient asked "Am I dying". 61.7% residents agreed that it was satisfying to work with

patients who are likely to improve. 75% residents felt that family interferes with patient management. Palliative medicine training should be incorporated into residency programs to affect a change in knowledge and attitudes of residents. Rather than viewing it as personal failure, it should change their personal beliefs, ethics and values about death and guide further treatments. Experience in palliative care and training was not associated with positive attitude towards palliative care among residents unlike other studies.<sup>11,15,16</sup> Improvement in knowledge and attitudes comes from direct palliative care experience but it should be followed with appropriate learning through supervision, feedback and role modelling under guidance. Lack of supervision leads to deleterious care and emotional distress to both patient and the families. Proper learning experiences are important for developing correct skills. Resident were somewhat/not competent 65% in breaking bad news and 63.3% not competent/somewhat competent in addressing spiritual issues with patient and family. These results are consistent with finding of other studies<sup>9,11,19</sup>. 68.3% residents were competent/very competent in conducting family meetings to discuss end of life care and 53.3% competent/very competent in discussing transition from curative to palliative care. 53.4% competent/ very competent in addressing patients fears and giving hope. Only 50% residents were competent/very competent in addressing and managing pain and 58.3% residents were competent/very competent in managing non- pain symptoms. Self-perceived competency among residents does not correlate with the knowledge and attitude and experience of residents in palliative care unlike in Billings *et al*<sup>11</sup> experience was associated with self-perceived competency but attitude did not correlate with self-perceived competency. Wolf *et al*<sup>15</sup> experience and attitude and knowledge correlated with self-perceived competency among residents. Unwillingness on the part of healthcare providers due to emotional issues associated with end of life care frequently results in unnecessary treatments and delayed palliative care services in terminal illness. The ability to deal with personal emotions and beliefs can help effective communication and decision making for better patient care. Communication skill training is essential component of successful end of life care. In our study, results point towards pain management and communication as main issues requiring enhanced training and education. Weissman<sup>21</sup> states a mix of teaching methods to improve patient care. Attitudes and values can be assessed by forming small group and in one to one settings (e.g. mentorship). Topics related to specific facts (e.g. use of antiemetics) can be taught in a lecture format or via self-study guides reinforced by case discussions. Teaching of end of life skills (e.g. conducting

a spiritual assessment) is best done by role modelling followed by a chance to practice via role playing and by actual performance under direct observation with immediate feedback. Opportunities to visit home hospice patients are an invaluable educational tool to reinforce appropriate attitudes, knowledge and skills. Also, sustained efforts in research, establishing practice guidelines and policies on end of life care such as advanced directives and withdrawing and withholding treatments. End of life care needs to become integral part of medical school curriculum and also CME programs to improve training opportunities available not only to residents but for fellows and attending physicians too. Further studies needed to determine different methods to improve experience and emotions of residents with end of life care and to review whether these methods improve competence of the residents to provide quality end of life care. The major limitations of this study are that it is based on the self-realization of residents and may not reflect their actual ability to provide palliative care or adequately deal with the strong emotions when treating dying patients. While these results reflect our local experience, they may not generalize to other institutions that might have more or less emphasis on palliative care and the low response rate is another factor. Also, there is lack of validated tools available for assessment of knowledge, attitude and self-perceived competency among resident doctors.

## CONCLUSION

There are plausible gaps in the knowledge, attitude and self-perceived competency of residents in end of life care. Knowledge and attitude did not correlate with self-perceived competency in end of life care. This study highlights the need to improve the pain and symptom management and communication skills to deliver quality end of life care among residents.

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