

Evaluation of the Awareness of Medical Students on Palliative Care

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ABSTRACT

Objective: The aim of this study was to determine the awareness of medical students on palliative care (PC) for terminal cancer patients.

Methods: A cross-sectional descriptive study was conducted in Gaziosmanpaşa University Medical Faculty. A face-to-face questionnaire form was presented to all students (n=363), and 210 students (57.9%) completed the form. Descriptive features of the students were compared with their knowledge of and attitude toward PC. Chi-square test was used for statistical analysis, and p<0.05 was considered to be statistically significant.

Results: The mean age was 20.8±2.0 years, and 62.9% of the students were female. A total of 52.9% encountered terminal cancer patients, and 64.3% felt anxious to communicate with the patients and their families. 51.9% of the students never heard of PC, 9.7% of the students who were aware about PC believed that the known information was sufficient, 9% believed in not performing cardiopulmonary resuscitation (CPR) in terminal cancer patients, and 16.2% thought that euthanasia should be legally available for these patients. There was no significant difference among the students who did not hear about PC before, who believed in not performing CPR necessity, and who believed in euthanasia in terms of gender and age (p>0.05). 75.7% of the students emphasized on the need of PC education, and 44.8% wished to attend PC postgraduate training.

Conclusion: More than half of the students had never heard of PC. Most students who had the knowledge about PC did not find it sufficient. The number of students who had an appropriate approach concerning CPR implementation to end-stage patients and euthanasia was low. Although three-quarters of the students considered attending PC education and nearly half of them considered working in the PC field, student awareness on PC was not at the desired level. Therefore, student needs to be indicated that the medical curriculum should contain PC subjects.

Keywords: Palliative care, awareness, medical students

Introduction

Palliative Care (PC) is defined as “an approach that increases the quality of life of the patients and their families through early identification, accurate assessment and appropriate treatment of pain and many other physical, psychological, social and mental problems associated with life-threatening diseases” by the World Health Organization (WHO) (1, 2). Life and death are seen as normal processes in PC services. The main purpose is not to extend the life span but to improve the quality of life (3-5). Within the scope of “Regulation on Application Procedures and Principles of PC Services” which came into force in 2015 in Turkey; PC centers have been established in inpatient health facilities for the purpose of early diagnosis of pain and other symptoms in patients with life-threatening diseases, alleviating their suffering and improving their quality of life by providing medical, psychological, social and moral support to these individuals and their family members. The patients with advanced organ failure, motor neuron

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diseases, progressive neurological diseases and end-stage cancer diseases are mainly followed up in these centers (6). The implementation of PC services is an important development despite the lack of adequate and equipped units reserved for this purpose in hospitals, the lack of adequate care for the quality of life and inadequate legal and ethical regulations (4).

PC services, which are one of the areas that are not given enough importance in our country, should be carried out with a multidisciplinary approach. It is very important that the physicians who play an important role in this team, which should be composed of experienced and trained health personnel and volunteers, should receive adequate training on PC. In the study conducted with 5th grade medical faculty students, Eyigör et al. (7) have reported that the students' knowledge about PC is insufficient, this issue is not included in the curriculum and the health personnel do not give the required importance to this subject. At the end of the study; despite the fact that PC services have become important in the health system, the lack of knowledge of the health personnel is stated to be the biggest obstacle to the improvement of PC service quality. In a study conducted in the United States (USA), it is stated that medical faculty students are not sufficiently prepared to provide many conditions in the care of patients in the last period of their lives, and less than 20% of the students are reported to have received training for end-of-life care in the formal curriculum. PC services need to be developed for the reasons such as the aging of population, the increase in chronic diseases and cancer, and the medical faculty stu-

dents as physicians of the future, who are indispensable elements of this team, should be trained about PC (9). In this study, it was aimed to determine the awareness of the medical faculty students of Gaziosmanpaşa University about PC in end-stage cancer patients.

Methods

The data of the cross-sectional and descriptive study conducted between January 15 and March 15, 2014 were obtained from the students studying at Gaziosmanpaşa University Faculty of Medicine by face-to-face application of the questionnaire form which was prepared by the researchers in accordance with the related literature. The population of the study consisted of 363 students attending medical faculty in the period between 2013 and 2014, and it was planned to reach the whole population without selecting any sample. Two hundred and ten (57.9%) volunteers who handed in their written informed consents were included in the study. Ethics committee approval was obtained from the Clinical Research Ethics Committee of the Faculty of Medicine of Gaziosmanpaşa University (13-KAEK-237, 08.01.2014).

Statistical analyses

The data were evaluated with SPSS Statistics Version 20.0 (statistical package program in Armonk, NY, USA), and the descriptive characteristics of the students and their awareness about PC were compared. The descriptive data were shown as number (n), percentage (%) and mean±standard deviation, and Chi-square test was used to test the differences. The level of statistical significance was accepted as $p < 0.05$.

Results

Of the students who participated in the study, 132 (62.9%) were female and 78 (37.1%) were male. The mean age was 20.8 ± 2.0 years; 31% of the participants were 19 years and below and 69% were 20 years and older. Of the students, 62.4% were in the first three grades where the basic medical sciences were given, and 37.6% were attending clinical internship. Of the participating students, 12.9% stated that they had a chronic disease. Of them, 65.7% stated that their health status was good, 29% stated that it was moderate and 5.3% stated that it was poor. There was an individual who had cancer or who died due to it in the first-degree relatives (mother, father and siblings) of 4.3% of the students (Table 1).

Of the students, 52.9% stated that they had encountered end-stage cancer patients in their close relatives or during clinical internships, and 64.3% of them felt discontent about communication with such patients and their families. Of the students, 48.1% (101 students) stated that they heard about the concept of PC and 72% of them had knowledge about PC. Only 9.7% of those who had

Table 1. Distribution of Medical Faculty students according to various descriptive characteristics

Descriptive Characteristics (n=210)	n	%
Gender		
Male	78	37.1
Female	132	62.9
Age group		
≤19 years	65	31.0
≥20 years	145	69.0
Grade		
1 st , 2 nd , 3 rd grade	131	62.4
4 th , 5 th , 6 th grade	79	37.6
The presence of chronic disease		
Yes	28	12.9
No	182	87.1
How he/she feels		
Good	138	65.7
Middle	61	29.0
Bad	11	5.3
History of cancer in the family		
Yes	9	4.3
No	201	95.7
Total	210	100.0

Table 2. Distribution of medical students according to some characteristics related to palliative care in end-stage cancer patients (n=210)

Characteristics	Yes n (%)	No n (%)
Whether or not they encountered an end-stage cancer patient	111 (52.9)	99 (47.1)
Whether or not they encountered a death case	137 (65.2)	73 (34.8)
Uneasiness in communicating with cancer patients / relatives	135 (64.3)	75 (35.7)
Whether or not they heard about palliative care	101 (48.1)	109 (51.9)
Whether or not those who heard heard about palliative care (n=101) have knowledge about this issue	72 (72.0)	29 (28.0)
Whether or not those who have knowledge about palliative care (n=72) find it sufficient	7 (9.7)	65 (90.3)
Whether or not they want to attend education on palliative care	159 (75.7)	51 (24.3)
Whether or not they want to work in the care of end-stage patients	94 (44.8)	116 (55.2)

knowledge about the PC found this knowledge sufficient. There was no significant difference in terms of whether or not they heard about PC between gender and age groups ($p>0.05$). Of the students, 75.7% stated that they wanted to participate in a training about PC and 44.8% of them wanted to work after graduation in an area where care is given to end-stage cancer patients (Table 2).

Of the students, 65.2% stated that they encountered death cases before; when they were asked what they felt in that situation, 37.9% of them stated they cried and were sad, 32.1% thought it was natural, 12.4% feared, 10.2% thought the sufferings of the patient ended, and 8.8% stated that they did not feel anything. When asked about how they would deal with the emotions they experience when they face with death; 56.7% of the students stated they would think that death is natural, 50.4% would pray, 23.3% would talk to their own family, 22.9% would cry, 11.9% would talk about this situation with friends, and 6.7% stated that they would not do anything. According

Table 3. The status of whether medical faculty students accept cardiopulmonary resuscitation (CPR) in end-stage cancer patients receiving palliative care

Some characteristics of the students	n=210	Should CPR be performed in end-stage cancer patients?						p	
		Yes (n=73)		No (n=19)		Indecisive (n=118)			
		n	%	n	%	n	%		
Gender	Male	78	30	38.4	7	9.0	41	52.6	0.677
	Female	132	43	32.6	12	9.1	77	58.3	
Age group	≤19 years	65	22	33.8	2	3.1	41	63.1	0.104
	≥20 years	145	51	35.2	17	11.7	77	53.1	
Grade	1st, 2nd, 3rd	131	43	32.8	10	7.6	78	59.6	0.398
	4th, 5th, 6th	79	30	40.0	9	11.4	40	50.6	
History of cancer in the family	Yes	9	1	11.1	3	33.3	5	55.6	0.022*
	No	201	72	35.8	16	8.0	113	56.2	
Whether or not they encountered an end-stage cancer patient	Yes	111	41	37.0	10	9.0	60	54.0	0.774
	No	99	32	32.3	9	9.1	58	58.6	
Whether or not they encountered a death case	Yes	137	48	35.0	12	8.8	77	56.2	0.978
	No	73	25	34.2	7	9.6	41	56.2	
Whether or not the felt uncomfortable in communication	Yes	135	45	33.3	13	9.6	77	57.1	0.814
	No	75	28	37.3	6	8.0	41	54.7	
Whether or not they heard about palliative care	Yes	101	38	37.6	12	11.9	51	50.5	0.191
	No	109	35	32.1	7	6.4	67	61.5	
Whether or not they received education on palliative care (n=101)	Yes	72	27	37.5	10	13.9	35	48.6	0.644
	No	29	11	37.9	2	6.9	16	55.2	
Whether or not they want to attend the education on palliative care	Yes	159	58	36.5	18	11.3	86	54.2	0.555
	No	51	15	29.4	4	7.8	32	62.8	
Whether or not they want to work in the care of end-stage patients	Yes	94	36	38.3	8	8.5	50	53.2	0.625
	No	116	37	31.9	11	9.5	68	58.6	

* <0.05 . CPR: cardiopulmonary resuscitation

to the students, the goals of PC in the end-stage cancer patients were pain control (83.3%), increasing the quality of life of the patient (78.6%), support for psychological problems (75.7%), ensuring comfortable / peaceful death (64.8%), support for physical care (46.7%), nutritional support (42.9%), support for social problems (41.4%), improving the quality of life of the patient's family (38.6%), support for legal and ethical issues (37.6%), support to the family in the process of death and mourning (37.1%), solving communication problems (32.4%), and others (doing everything necessary) (1.4%), respectively.

The students stated that the most frequent causes for the admission to the hospital in end-stage cancer patients were pain (90%), anorexia (28.6), nausea and vomiting (23.3%), depression (21%), bleeding (16.7%), shortness of breath (11.4%), constipation (6.2%) and acid (5.7%), respectively. Of the students, 61% think that alternative medicine should be provided for end-stage cancer patients in addition to the medical support. When asked about where the care of end-stage cancer patients requiring PC should be; 69% of the participants stated that it should be at home with family, 24.8% stated that it should be in inpatient units of hospitals (63.5% expressed single rooms, 34.6% expressed double rooms, 1.9% expressed rooms with three or more persons), 22.9% stated that it should be in nursing homes for the special care of end-stage cancer patients, and 1% stated that the patient should be in an isolated place that he/she demands.

Apart from the compulsory courses; the resources that the students received knowledge about PC were the faculty members of the Palliative Care Working Group (PCWG) (50.1%), palliative care course (45.8%) received during the General Surgery internship in the medical school education curriculum, health-related websites (25%), books and journals (23.6%), activities of the student clubs (20.8%), congresses, conferences and panels they attended (13.9%), nurses (8.3%), and assistant physicians (4.2%), respectively. According to students who heard about the concept of PC; it was most commonly defined as "Improving the quality of life"; then, it was defined as end-stage care (55.4%), supportive treatment (51.5%), comfortable / peaceful death (46.5%), treatment and care for all symptoms (39.6%), preventive care (20.8%) and meeting all the needs of bed-dependent patients (16.8%), respectively.

Of the students, 34.8% thought that cardiopulmonary resuscitation (CPR) was required to be performed in end-stage patients, 9% stated that CPR was not needed, and 56.2% stated that they were indecisive about this issue. The demand for CPR was found to be significantly lower in those with a cancer history in the family than the those without a history of cancer in the family ($p < 0.05$). No significant difference was found between the status of being in favor of performing CPR and the gender of the students,

age group, grade in school, whether they encountered an end-stage cancer case or not, whether they encountered a death case or not, whether or not they had trouble in communication with end-stage cancer patients, whether or not they received information about PC, whether or not they were eager to participate in PC training, and whether or not they were eager to work in units giving PC to end-stage cancer patients ($p > 0.05$) (Tablo 3). According to 16.2% of the students, it was necessary that euthanasia be legal for end-stage cancer patients, and 56.2% of them stated that there was no need for euthanasia and 27.6% stated that they had no idea. There was no significant difference between the status of being in favor of performing euthanasia and the gender of the students, age group, grade in school, whether or not they encountered an end-stage cancer case, whether or not they encountered a death case, whether or not they had trouble in communication with end-stage cancer patients, whether or not they received information about PC, whether or not they were eager to participate in PC training, and whether or not they were eager to work in units giving PC to end-stage cancer patients ($p > 0.05$).

Discussion

More than half (52.9%) of the medical faculty students who participated in our study encountered a terminal cancer patient in their close relatives or during their clinical internships, and a large majority (97.3%) of these patients were over the age of 40 years. Wechter et al. (10), it is reported that medical students' experience in end-of-life care during their medical education will provide significant contributions to students and help them to be more prepared for medicine in terms of practice. In a study conducted in the US, it was reported that the students of medical faculties rarely encountered with moribund patients, and their clinical experience could be indiscriminate and uncontrolled in the care of moribund patients because 35% of the students did not see any terminal stage patients (11). Although physicians are aware of the importance of providing high quality care to patients in the last period of their life, it is reported that they cannot communicate effectively with their patients, and this may be due to deficiencies in basic and clinical periods during medical school education (10).

The relationship of mutual trust and respect in communicating with end-stage patients receiving palliative care requires to have an honest, correct, open, and sincere communication that is respectful to rights, and requires to avoid paternalistic attitudes (deciding on behalf of the patient) and behaviors, and to respect the dignity and autonomy of the patient. It is stated that "the approach to death and moribund patients" is an integral part of medical education in some countries nowadays (12). In our study, 64.3% of the students stated that they felt uncomfortable about communication with the patient and

the family when they encountered an end-stage cancer patient. In the study conducted with the 5th grade medical students in order to evaluate their knowledge about PC and their opinions about it in clinical practice, Eyigör et al. (7) stated that 64.6% of the students had insufficient education about PC, 90.3% did not receive any training in communicating with PC patients and students' knowledge about PC was insufficient. In a study which examined the approach to death and moribund patients in the students of Ankara University Medical Faculty in 2011, it was stated that the medical education given before the education did not affect the student attitudes associated with death, moribund patients and the communication with the families of these patients, and it was determined that the avoidant attitudes which students had during the medical education continued also before the graduation, and it is specified that medical faculty students should be given comprehensive training on the approach to death and the moribund patient (12).

According to WHO, end-of-life care is considered to be an indicator of health quality in end-stage patients. It has been reported that the pain affects the quality of life negatively in patients receiving PC and the main goal is to relieve pain which is the most important symptom (4). In our study, the students stated that the most common symptom for the admission to hospital in end-stage cancer patients was pain; therefore, pain control was the most common aim of the care services to be provided for these patients. Improving the quality of life of the patients, support for psychological problems and comfortable/peaceful death were specified to be the other aims of the care service. In our study, students most commonly think that the care for cancer patients should be provided at home and with their family. It is known that many terminal-stage patients, especially cancer patients, want to spend the last period of their lives in their homes. Today, it is also recommended in the modern world that the care during the last period should be provided at home. Especially in countries such as ours, where family relations are so strong, it should be considered as priority to give the patient care at home. Coordination with home care services should be ensured in providing PC services (8). More than half of the students (51.9%) who participated in the study stated that they had not yet heard of the concept of PC. Of the students, 72% who heard about the concept of PC stated that they had knowledge about PC, and most of them (90.3%) found this information to be insufficient. The most common sources that the students received information about PC were indicated as the faculty members of PCWG, palliative care courses taken during the General Surgery internship in the medical school education curriculum, and health related websites, respectively. Of the four students participating in the study, three stated that they wanted to participate in a training course on PC for end-stage patients

and about half of the students (44.8%) wanted to work after graduation in a field that provided care for end-stage cancer patients. In a study conducted with medical faculty students in Nepal; Pandey et al. (13) reported that 56.3% of the students heard about the concept of PC, this rate was the lowest in the first year of medical school (6.1%), and 84.1% of the students wanted to receive education on this subject. In a study conducted in Pakistan; although the importance of PC has been increasing, the knowledge of medical students is reported to be incomplete (14).

There should be many training methods in the compulsory and elective curricula for medical faculty students about the care for patients in the end-of-life period. The curriculum contents of the medical faculties in Turkey and in the world differ significantly. Although it has been shown in a study that elective courses related to end-of-life care are very useful for students, it is reported that there are no elective courses related to this issue in many medical schools around the world (11). In our country, it is reported that one of the reasons why PC services have not been given enough importance so far is that it is not involved in basic medical education. In the studies conducted, many of the physicians and medical educators agree that PC education given before graduation is limited and it is stated that the knowledge, attitudes and behaviors of medical students in PC will be affected positively with the trainings to be given (3, 15).

In a study conducted by Weber et al. (16) in order to determine the knowledge and attitudes of the medical faculty senior students at two universities in Germany, it was found that the basic knowledge of the students about PC was limited and this study also shows the importance of compulsory PC courses in the medical curriculum. As a matter of fact, since 2013, the PC course in Germany has taken part in the compulsory courses in the medical education curriculum before graduation (17). In a study conducted in Australia, it is also stated that training in PC is important in medical education and that studies related to the development of palliative medical education should be continued (18). In a study conducted by Horowitz et al. (19) in the US, it is suggested that basic level of PC education should be integrated into each year of the medical education curriculum. In many European Union countries where rapid developments in PC are achieved, priority has been given to PC education, and universities are encouraged to adapt their education curricula to the demographic and social needs of their own countries (20). In our faculty, compulsory PC course is given during general surgery internship and elective PC training is given during the internship period. In addition to this, PC courses have been added to the curriculum in which students of medical faculty as well as other faculties attend. These courses are adopted and carried out by the PCWG faculty members in

accordance with the needs of our country. Thus, medical school students are provided with basic education about PC as of the first grade.

According to the current literature, there is a continuing lack of training on PC and the issue is not given due importance, and it is reported by both physicians and medical students that training on end-of-life care and PC is insufficient. Most physicians believe that their patients will need to receive PC because of the aging of the population and the prolonged chronic period before death. Therefore, great importance is given to insufficiency of training in PC worldwide. In the studies conducted, it is stated that there are concerns about this issue since the PC education is given with a very different and non-standard approach in medical faculties (21).

In patients receiving PC, it is very important to make the best decision to continue the life-supportive treatment or to terminate the treatment. In a study conducted on the attitudes of medical students towards the last period of life; when the decision about the death of people in terminal period was considered, it was determined that last grade medical faculty students thought that it was not their right; it is recommended that training programs that discuss the ethical issues related to the end of life should be organized. (22). One of the three students (34.8%) participating in our study considered that CPR was necessary to be performed in end-stage cancer patients and it was found that the demand for CPR was significantly lower in those with a history of cancer in the family ($p < 0.05$). More than half of the students (56.2%) were indecisive about performing CPR in these patients, and the rate of those who thought CPR was not needed was 9%. In a study evaluating the end-of-life decisions of medical school students in China, 62% of medical students stated that CPR was needed to be performed in end-stage patients and this rate decreased from 80% in the first grade to 27% in the 5th grade (23). Sadhu et al. (24) reported that 36.5% of the 4th and 5th grade medical students thought that CPR was not appropriate in patients with end-stage cancer and that the students were insufficient in CPR application, symptom management, communication with patients and their relatives, interdisciplinary care and in understanding the philosophy of PC. Although the decision of not resuscitating the patients (Do Not Resuscitate: DNR) receiving PC is legal in some western countries, it is not legal in our country. CPR is legally performed in everyone who dies in hospital in Turkey. In our study, the fact that only 9% of the students state that CPR should not be performed in patients receiving PC may be due to the fact that the legal obligation about it is known. In addition, considering the situation more realistically, a significant proportion of the students with a family history of cancer thought that the patient would not benefit from CPR.

Euthanasia is one of the most challenging ethical problems in patients receiving PC. It is reported that the need for euthanasia has been reduced thanks to the spread of PC services, the use of analgesics and effective terminal sedation (25). In our country, euthanasia is not legal, and according to the Turkish Penal Code, active euthanasia is regarded as “intentional killing” and passive euthanasia is accepted as “involuntary manslaughter”. One of the six students (16.2%) participating in our study think that euthanasia should be legal for end-stage cancer patients and it has been found that the present variables do not have a significant effect on the demand for euthanasia ($p > 0.05$). In a study conducted in Pakistan with students from the state and private medical faculties, it was found that the majority of the students were aware of euthanasia, but only 14% of them considered euthanasia acceptable in PC patients, and it is reported that there should be euthanasia and PC issues in medical education programs. (26). In a study which was conducted in two medical schools in Poland and in which 85% of the students were Catholics; while 30% of the students supported the view that euthanasia should be legal, 47% reported that they were opposed and 23% were indecisive. It is stated that the opinions of 95% of the students about euthanasia do not change after PC course and that gender and religious opinion have an effect on students’ answers; the difference between medical students of the two universities may be related to gender and cultural differences (27).

Limitations of the study

Only the students of Gaziosmanpaşa University Medical Faculty were included in the study and it could not be conducted at a satisfactory level in terms of basic sciences due to the reasons such as student participation during clinical internship, the intensity of the workload, and difficulty in reaching the students as a whole. The results of the research cannot be generalized to all medical students. Further studies are needed with appropriate sampling methods, with more participation from different medical faculties, which adequately represent the students in basic and clinical sciences. In addition, elective PC courses were started to be given to the students of School of Medicine of Gaziosmanpaşa University as of 2014.

Conclusion

More than half of the medical faculty students encounter end-stage cancer patients during their education, and two thirds of them feel uncomfortable in communicating with such patients and their families. More than half of the students did not hear about the concept of PC. The majority of the students who stated that they had knowledge about the PC specified that their knowledge was insufficient. The proportion of students with correct approaches to CPR and euthanasia is low. Three-quarters of the students consider to participate in an education on PC, and although about half of them wish to work after graduation in an area

where care for end-stage cancer patients is provided, their awareness of PC is not at the desired level. It is known that the formal, informal and implicit curriculum in medical faculties have an impact on the education of PC. Because of the limited number of studies related to awareness about PC in the students of the faculty of medicine in Turkey; the results of this study are expected to make positive contributions about providing PC services when preparing the medical school curriculum before graduation. Physicians have an important role in the provision of PC services in end-stage cancer patients. For this reason, the awareness of students should be increased by focusing on PC issues in the curriculum of medical school courses.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Gaziosmanpaşa University School of Medicine (13-KAEK-237, 08.01.2014).

Informed Consent: Written informed consent was obtained from students who participated in this study.

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