Medical Teacher

ISSN: 0142-159X (Print) 1466-187X (Online) Journal homepage: informahealthcare.com/journals/imte20

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To cite this article: Yoram Singer & Sara Carmel (2009) Teaching end-of-life care to family medicine residents–what do they learn?, Medical Teacher, 31:2, e47-e50, DOI: 10.1080/01421590802331420

To link to this article: https://doi.org/10.1080/01421590802331420

Published online: 03 Jul 2009.

2009; 31: e47–e50 MEDICAL TEACHER

WEB PAPER

Teaching end-of-life care to family medicine residents – what do they learn?

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Abstract

Background: In order to address adequately basic palliative care issues, post graduate teaching programs for physicians should provide, in addition to basic knowledge in the field and clinical skills, also training in terms of orientations and skills which enable physicians to overcome their emotional difficulties as well as professional barriers. This paper presents a model of teaching and its evaluation.

Aims: The purpose of this project was to develop an educational program for residents in family medicine and evaluate its effect over time. The focus was on the self-perceived ability of physicians for understanding and communicating with terminally ill patients; the physicians' ability to deal with their own emotional difficulties while caring for the terminally ill; and the physicians' confidence regarding the management of over-all suffering.

Methods: Structured questionnaires were filled out by 21 physicians before and after an 8 months program of residency training in palliative care.

Results: Factor analysis yielded three factors: (A) Beliefs focusing on the resident's ability to understand terminally-ill patients and to communicate with them, (B) Beliefs regarding the effect of the program on the resident, and (C) Beliefs about self-professional skills. A comparison with the responses at the end of the program indicated a trend towards increased communication capabilities, relating increased importance to the program and a significant improvement in self confidence in professional skills.

Conclusions: The results of the evaluation indicate that this teaching program has achieved its goals by not only improving the physician's knowledge, but also causing a positive change in attitudes regarding end-of-life care. Considering our positive results it is recommended to incorporate similar training programs in physicians' post-graduate studies.

Introduction

Since the inception of the modern hospice movement by Dame Cicely Saunders about forty years ago (Saunders 1996), end-of-life care is developing to become a more prominent field of medical practice. However, end-of-life medical services are still lacking in many places, partly owing to the lack of adequately trained medical professionals (Billings & Block 1997; von Gunten et al. 2000). Education of medical professionals in palliative care is beginning to develop, and different programs have been created and implemented, both at the undergraduate and post graduate levels of the medical profession (Boakes et al. 2000; Burge et al. 2000; Oneschuk et al. 2001; Rawlinson & Finlay 2002; Stanton 2003; Lloyd-Williams & MacLeod 2004; Montagnini et al. 2004; Sullivan et al. 2004). The aim of such programs is for the doctor not only to learn the skills of alleviating suffering at the end of life, but also to accept the unique philosophy of care for this stage in life. This includes the concept of futility of aggressive medical treatments aimed at prolonging life at all costs; the acceptance of the fact that death is approaching and the focusing of care on alleviation of suffering and preparation of the patient and his family for the inevitability of death. Barriers to the administration of drugs such as morphine, and difficulties in communication at the end of life must be overcome. These and other challenges must be breached to ensure that medical professionals practice high quality palliative care (Aranda et al. 2004; Gallagler et al. 2004; Auret & Shug 2005).

Practice points

- Every residency program should address the common barriers of end-of-life care delivery.
- Full responsibility in the treatment of a terminally ill patient by the resident should be incorporated in the program.
- Long-term involvement in the care of the dying is effective in changing attitudes.
- As part of every residency program attitudes in addition to clinical skills should be evaluated.
- Working within a multidisciplinary team over time is an important learning experience for residents.

Medical schools in many parts of the world offer very little if any systematic training in comprehensive end of life care (Billings & Block 1997; von Gunten et al. 2000; Lloyd Williams & Macleod 2004). Therefore, post-graduate courses in end-of-life care and hospital programs in palliative care are

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ISSN 0142–159X print/ISSN 1466–187X online/09/020047–4 © 2009 Informa UK Ltd.
DOI: 10.1080/01421590802331420

gradually being developed world wide. For example, the American Hospital Association Annual Surveys between the years 2001–2004 showed that the number of palliative care programs increased linearly from 15% of hospitals in 2000 to 25% of hospitals in 2003 (Morrison et al. 2005). Many of these training programs consist of lectures and seminars in the various aspects of palliative care, with little or no opportunity to gain clinical experience. An assessment of most of these programs is limited to clinical knowledge acquired during the course (Burge et al. 2000; Rawlinson & Finaly 2002). To the best of our knowledge, no formal assessment of the impact of an educational program in palliative care in terms of emotional and communication coping abilities and in terms of attitude formation, has been described (Lloyd-Williams & Macleod 2004). In comparison to other fields in medicine, end-of-life care is a discipline in which many emotional issues are involved. Therefore, in addition to physical difficulties, psychological and spiritual suffering needs to be assessed and treated. These issues involve the patients, their care givers, and also the medical staff. We believe that, these emotional challenges, more than clinical knowledge determine the quality of palliative care delivered. These aspects of care are usually not assessed in studies describing palliative care education.

The objectives of this project were to teach and subsequently evaluate the impact of a palliative care training program for family medicine residents. Particular emphasis was placed on evaluating changes over time in:

(a) The self-perceived ability of physicians for understanding terminally ill patients and communicating with them.
(b) The physicians' ability to deal with their emotional difficulties while caring for the terminally ill.
(c) The physicians' confidence regarding the management of over-all suffering in the terminally ill.

Description of the training program

The family medicine residency program affiliated with the Faculty of Health Sciences in Beer Sheva, Israel has incorporated palliative care into its curriculum. Every family resident spends about 8 months on a part time basis working with the home palliative care service. The service cares for cancer and non cancer terminally ill patients in their home. After 8 hours of orientation in the unit, the resident is given responsibility for the care of one of the terminally ill patients on the list. He has the backing of one of the permanent physicians on the unit, and is expected to perform a home visit once a week, while the patient and his family can contact him if any problem arises. The regular nurse and social worker of the unit are also available. Some of the home visits are done independently and some, together with one of the permanent unit staff for instruction purposes. In addition, once a week, the resident is on night call duty for the whole unit, which cares for 24–26 patients at any one point in time. During a weekly staff meeting, each resident presents his/her patient for group discussion and consultation. Every two weeks the residents are given a one hour seminar on the various aspects of symptom control including the alleviation of physical, emotional and spiritual suffering.

Process of evaluation

During the past four years, every family medicine resident was asked to fill out a pre-course and, after 8 months, a post-course structured questionnaire. Both questionnaires included the same items but the preface was changed to the appropriate time. Some items in the questionnaire were structured to assess the residents' feelings and beliefs regarding the care of a terminally ill patient; clinical knowledge was not assessed. Another set of items referred to patient-oriented skills including communication with terminally ill patients and their families. All items were presented as statements followed by a Likert scale with 7 categories of response, ranging from 7 being 'absolutely correct' to 1 being 'not correct at all'. The questionnaire was developed by the authors for this study and pretested on 15 residents of family medicine. A factor analysis with Varimax Rotation yielded three factors. The average score of all the items included in each factor was considered as the index score (Table 1).

Description of the participants

Altogether 21 pairs of questionnaires were collected. Five residents were not included in the study because they lived far from Beer-Sheva and were thus not able to do the night calls. One resident asked not to participate in the program because a close family member had advanced cancer.

The residents had attended medical school in various parts of the world. The majority had studied in the former Soviet Union and already worked as physicians before beginning their residency training (50%). There were more males (67%) than females, most of the residents were married (75%), with at least one child (65%). All were between 26–42 years of age. None had received any sort of training in palliative care either at medical school or in any graduate courses prior to this training program.

Statistical methods

Factor analysis was used to build the final indices and Cronbach's alpha for evaluating their internal reliability. Differences over time were assessed by *t*-tests for dependent samples. All statistical analyses were conducted with the use of SPSS version 14 (Field 2005).

Results

A factor analysis procedure with Varimax Rotations was conducted on the responses to all the statement items yielding three factors: (A) Beliefs focusing on the resident's ability to understand terminally-ill patients and to communicate with them, with a relatively high Chronbach's alpha- 0.92; (B) Beliefs regarding the effect of the program on the resident, with a moderate Chronbach's alpha- 0.74; and (C) Beliefs about self-professional skills, with a moderate to low Chronbach's alpha- 0.68.

Table 1. Feelings and beliefs before and after the training program. When I am thinking of treating a terminally ill patient at the end of his/her life.

	Time 1 Mean/SD	Time 2 Mean/SD	*t*	Sig
A. Understanding of and communication with patients				
The program will help/*helped* me to understand the feelings of patients receiving bad news	5.85/1.27	6.00/1.12	−0.50	NS
The program will help/*helped* me learn to speak with patients' families	5.45/1.43	5.70/0.86	−0.93	NS
The program will help/*helped* me understand the families of critically ill patients	5.95/0.94	6.20/0.70	−1.23	NS
The program will help/*helped* me see my patients as people	5.00/1.72	5.50/1.60	−1.21	NS
The program will help/*helped* me learn to speak with patients	5.42/1.22	5.73/0.87	−1.56	NS
Index (average score of 5 items) Cronbach's alpha = 0.92	5.53/1.16	5.82/0.76	−1.41	NS
B. Self-oriented – emotional experience				
This experience will only damage me as a physician	1.25/0.44	1.10/0.32	1.83	NS
This experience will only damage me as a person	1.35/0.59	1.35/1.14	0.00	NS
This is a difficult experience that I cannot stand	2.35/1.14	1.85/0.81	2.03	0.03
This experience is unnecessary for me	1.52/0.87	1.19/0.51	2.35	0.04
Index (average of 4 items) Cronbach's alpha = 0.74	1.59/0.60	1.48/0.69	0.70	NS
C. Self-oriented- professional skills				
I have all the professional skills required	4.09/1.18	5.00/1.41	−2.94	0.01
This experience will help/*helped* me treating dying patients in the future	6.35/0.81	6.25/0.72	0.46	NS
Professionally, I know that I have today the knowledge and skills for treating terminally-ill patients in hospice	5.00/1.41	5.81/1.12	−2.12	0.047
Index (average of 3 items) Cronbach's alpha = 0.68	4.89/0.88	5.51/0.83	−2.61	0.017

The results presented in Table 1 show that although the scores of all the items in factor A changed in the expected direction after completion of the program (from time 1 to time 2), the results were not statistically significant, indicating a trend towards increased capabilities in communication with terminally-ill patients. In general, the scores on all items were rather high, indicating that the residents ranked themselves relatively high regarding the understanding of patients and communicating with them. In the second factor, the scores of two of the items changed significantly at the end of the training program: The beliefs that the program is too difficult, and that it is an unnecessary experience weakened. Overall, low scores were given to the negative beliefs regarding the program. The scores regarding self-evaluation of professional skills were rather high (Factor C). This factor changed significantly over time, indicating that although the residents' confidence in their professional skills was high at baseline, they felt that this experience improved it even further.

The open discussion held at the end of the program indicated that, although not statistically evaluated, there was a general trend of the residents to feel more confident in treating terminally ill patients. This included the telling of bad news to the patients. In addition, there was a general feeling that after this experience there was a better degree of understanding of the patient's feelings and the families' difficulties in dealing with a loved one with a life threatening condition. Residents felt that the experience will encourage them to adopt a more positive attitude to patients in general and not only towards those with a terminal illness. Although not the purpose of this evaluation, in the feedback discussions which were held at the end of the rotation, residents also expressed their feelings and beliefs about having better knowledge and clinical skills to care for terminally ill patients.

Discussion

In general, we found that a comprehensive post graduate training program in palliative care, integrated into a residency training program is an effective way of teaching end-of-life care. Not only did the residents express a general feeling that their clinical skills and knowledge improved, but also a general positive trend in attitude was observed. Similar responses were reported following an undergraduate palliative care education program (Macleod et al. 2003). In this study, students reported an emotional component that altered their perception of palliative care after spending time with a dying patient and their family. A general trend of improvement in the perceived understanding of the patient and the family's predicament and in the communication with both the patient and his family was noted. Provided there is a good home palliative care service already functioning, with staff that are motivated to teach and give the necessary support to the residents especially during the first few weeks, the implementation of such a training program is relatively simple. The resident is required to invest an extra 3–4 hours weekly and in addition one night call a week. This is certainly a feasible quest. The required responsibility of the resident demanded in this program, is probably in itself a motivating factor to read and inquire about the various aspects of end-of-life care. Another advantage of this program is that very little extra time is required by the teaching staff and it enables the student to be exposed to multi-disciplinary working teams, an experience which has been reported to have positive long-term effects on medical professionals' skills and career progression (Koffman & Higginson 2005). In addition, although not measured, we received the impression that the extra professional help and additional home visits were greatly appreciated by the patients and their families. Thus, we believe that the residents contributed to the general satisfaction with the overall treatment process of the unit.

There are two major drawbacks to this study. The main drawback is the small sample size. However, since even with this small sample there are definite trends, we decided to report the study at this stage rather than wait another 2–3 years until a significantly larger number of questionnaires will be collected. Secondly, with the absence of a control group of residents, it could be argued that the differences measured could be due to the residency program as a whole and not attributed to the specific palliative care exposure. We argue that it would be highly unlikely that with a lack of specific palliative care exposure there would be any measurable change regarding the specific issues that were addressed.

Measurement of clinical knowledge and skills is routinely assessed after almost every training program. To the best of our knowledge this is the first study to present a structured questionnaire for measuring feelings and documenting the measured effect of a palliative care training program on the attitudes and feelings of trainees on end-of-life care. Unless physicians feel confident and at ease with the delivery of comprehensive end-of-life care, even if the theoretical knowledge exists, they will tend to avoid these issues in their day to day practice. Thus, we believe that every residency training program, in particular family medicine residency programs, in addition to clinical skills, should address the common barriers of end-of-life care delivery. One good way to achieve this type of training is by incorporating compulsory clinical experience as part of the training program. In order to evaluate the success of the training program, we suggest that in addition to theoretical clinical knowledge, attitudes to end-of-life care issues and perceptions of possible barriers be assessed as well.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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