End-of-Life Project Trains Medical Educators to Add Palliative Care Curriculum for Medical Residents

Improving residency training in end-of-life care

SUMMARY

Project staff from the Medical College of Wisconsin trained residency program directors and faculty in internal medicine, family medicine, neurology and surgery to incorporate end-of-life training into their curriculum for medical residents through the National Residency End-of-Life Education Project.

Key Results

The project director reported the following key results:

- 342 residency programs completed the National Residency End-of-Life Education Project (167 internal medicine programs, 97 family medicine programs, 43 neurology programs and 35 surgery programs).
- 78 percent of the residency programs made major curriculum changes.

Neurologist Peter Jacobson, MD, started a comprehensive palliative care training program for neurology residents at the University of North Carolina after participating in the RWJF-funded National Residency End-of-Life Education Project. More.

Christian Furman, MD, established new palliative care training at the University of Louisville School of Medicine after participating in this project. More.

Funding

The Robert Wood Johnson Foundation (RWJF) supported the project with five grants totaling $1,685,740 from April 1998 to September 2005.
THE PROBLEM

In the 1990s, there was little formal training on end-of-life care in the nation's residency programs (which train doctors who have just completed medical school), according to David Weissman, MD, founder of the Palliative Care Center at the Medical College of Wisconsin in Milwaukee.

The Palliative Care Center is an educational program that provides access to information about end-of-life issues, pain management and improving care for the seriously ill. Weissman has worked in end-of-life education for many years.

A study of medical school curricula published in the *Journal of the American Medical Association* in 1997 found that:

- Students liked learning about end-of-life care.
- Such teaching positively influenced their attitudes and enhanced their communication skills.

However, the authors found that the training was inadequate, especially when medical students were working with patients.

In 1997, *Approaching Death: Improving Care at the End of Life*, an Institute of Medicine (IOM) publication, noted that physician education and training did not provide the attitudes, knowledge and skills required to care well for the dying patient. It recommended that: "Educators and other health professionals should initiate changes in undergraduate, graduate, and continuing education to ensure that practitioners have relevant attitudes, knowledge, and skills to care well for dying patients."

That same year, the American Board of Internal Medicine mandated that internal medicine residency programs include end-of-life care training. However, most medical school faculty members had little training in end-of-life care and how to teach the subject.

CONTEXT

RWJF has supported numerous initiatives to improve care at the end of life. RWJF has pursued three strategies in its effort to improve care at the end of life:

1. To improve the knowledge and capacity of health care professionals and others to care for the dying.
2. To improve the institutional environment in health care institutions and in public policies and regulatory apparatus to enable better care of the dying.
3. To engage the public and professionals in efforts to improve end-of-life care.
This project fit within the first strategy.

THE PROJECT

Weissman began the National Residency End-of-Life Physician Education Project in 1998 to help internal medicine residency programs meet the new training requirements (ID# 032598). This one-year pilot project tested methods of teaching faculty in 29 internal medicine residency programs to incorporate end-of-life, or palliative care, training into the residents' curriculum.

Palliative care is a comprehensive approach to treating serious illness with a focus on keeping dying patients comfortable through pain control and addressing psychological, social and spiritual concerns instead of treating the disease or condition.

In this report, palliative care and end-of-life care are used interchangeably.

The project director worked with the American Board of Internal Medicine, which sent letters to residency programs encouraging them to participate in the pilot project.

After the pilot project, the National Residency End-of-Life Physician Education Project worked with two groups of residency programs per year. Most groups had about 30 participating programs.

Project Features

- Participating residency program directors filled out a self-assessment survey that evaluated their current curriculum in end-of-life care as well as the potential for and barriers to additional end-of-life-care teaching.

- Residency faculty and residents at participating programs completed a palliative care knowledge test and a self-assessment of their comfort and confidence regarding end-of-life care. In this and later groups, they averaged only about 50 percent correct answers on the knowledge test, with the faculty scoring only slightly better than the residents.

- Representatives of each participating program (usually the residency program director, faculty members and a representative resident) attended a two-day conference that focused on the process of educational change and specific techniques for teaching palliative care rather than simply end-of-life knowledge. Participants created action plans, which served as the basis for making changes at their institutions.

- Project staff provided participants with extensive curricular materials: teaching guides, syllabus, a video about communication and role-play examples.
• Experts in palliative medicine and hospice care served as project faculty. Most worked for medical schools and had experience teaching these subjects to medical students or physicians. Approximately five faculty members worked with each group of participants. Over the course of the project, 19 faculty members participated. See Appendix 1 for a list of faculty.

Faculty followed up with participants every few months to guide them through the change process, assess progress and provide assistance with problems. Faculty also set up an e-mail discussion forum for participants to share what they learned and were doing.

• Residency program directors asked their chief residents to complete a chart review of 10 inpatient charts. The purpose was to give residents a clearer picture of the problems in caring for patients at the end of life and to provide an impetus to start quality improvement projects.

In October 1998, participating residency program directors attended the first two-day conference. This conference and later conferences included several project faculty.

The conference covered six modules on aspects of palliative care:

• Pain.
• Communication skills.
• Faculty development.
• Integrating end-of-life clinical opportunities.
• Hospice care.
• Program evaluation methodology.

The conference included role-playing to help participants practice communication skills. Faculty also gave participants tips on areas such as breaking bad news. Feedback from participants led project faculty to hold a follow-up conference in June 1999 for a "show and tell" on the new curriculum and to provide new teaching based on a participants' needs assessment.

**Project Expansion**

In 1999, RWJF funded a second grant to recruit and train up to 180 additional faculty from internal medicine residency programs (ID# 036669). Based on experience from the pilot project, project faculty made the following changes:

• The project director strongly encouraged the chief resident from each residency program to attend the conference.
• Project faculty wrote an end-of-life care knowledge examination that residency program directors, faculty and residents could use as a post-test measure.

• Project staff added a follow-up meeting for each group of participating residency programs six months after the conference.

**Family Medicine Residencies Added**

Project staff opened up the project to family medicine residency programs after running into difficulty recruiting enough internal medicine residency programs. The Society of Teachers in Family Medicine, the accrediting board for family medicine, had recently added a requirement for end-of-life training in its residency programs. Staff members there wanted to participate and sent letters to encourage residency programs to enroll.

**New Resources for Project Participants**

In 1999, RWJF funded Weissman to create the Web-based End of Life/Palliative Education Resource Center. The website provides peer-reviewed educational materials, recommended books and articles, training opportunities, funding sources, conferences and links to other resources. Project participants used the website as an information resource. For more information, see [Program Results Report](#) on ID# 045195.

**Neurology and Surgery Residencies Join Project**

In 2001, RWJF awarded a third grant to adapt the project to neurology and surgery residency programs (ID# 041481). Project staff sought to recruit representatives from 30 neurology and 10 general surgery residency programs. Those specialties also had new requirements on end-of-life training for their residents.

Representatives from the American Academy of Neurology and the American College of Surgeons assisted with recruitment. Upon the request of the American College of Surgeons and the Surgical End-of-Life Workgroup, the project recruited 10 surgery programs rather than 30, in order to pilot test the new curriculum.

**Expanding the Project to More Residency Programs**

Under two more grants (ID#s 044826 and 046547), project staff sought to recruit and train residency program faculty representing 160 U.S. residency programs in internal medicine, family medicine, surgery and neurology.

Throughout the project, project staff were sometimes unable to meet their recruitment goals, due to issues such as an overall decrease in interest by internal medicine residency programs and September 11th (one of the two-day conferences was scheduled for a few weeks after September 11th; some residency program faculty did not attend that year).
Also, approximately 5 percent of enrolled residency programs dropped out before completing training.

In 2002, the project director also held a reunion meeting for representatives from all participating residency programs. One hundred and twenty representatives from 57 residency programs attended. Most were residency program directors and faculty members; a few residents also attended.

Participants shared what they had done so far. They also had an opportunity to learn from others' work, and they received the latest information on end-of-life training and care.

**Communications**

Project faculty developed two educational manuals (one for faculty development and one to be used by program faculty for teaching residents) and distributed them to all participating residency programs. Faculty and participants also developed 141 "Fast Facts" information sheets about topics in palliative care. Participating residency programs published abstracts of their work (131 in total) in the *Journal of Palliative Care*. Project faculty published two articles in the same journal about the end-of-life curriculum and the pilot group. See the Bibliography for details.

The pharmaceutical companies Roxane Inc. (Columbus, Ohio) and Purdue Pharma (Stamford, Conn.) together provided $37,500 to support the project.

**RESULTS**

The project director reported the following results to RWJF:

**Participating Programs**

- **342 residency programs completed the National Residency End-of-Life Education Project** (*167 internal medicine programs, 97 family practice programs, 43 neurology programs and 35 surgery programs*). Representatives of participating programs completed the self-assessment and the palliative care knowledge test, and attended both conferences (the two-day conference and the one-day follow-up conference). The programs represented:
  - 40 percent of internal medicine residency programs.
  - 19.5 percent of family medicine residency programs
  - 35.8 percent of neurology residency programs.
  - 13.6 percent of general surgery residency programs.

- **80 percent of residency program directors reported that their programs used the curriculum materials and 85 percent used "Fast Facts."**
**Project Change**

- 70 percent of the residency programs made major curriculum changes while the remaining programs (30%) made little or no changes or did not report those changes. Of the residency programs that made significant changes, residency program directors reported that 70 percent of the improvement was due directly to the project. The reasons for lack of change included:
  
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  - Lack of support from the chair or other faculty.
  - Major personnel change in the residency program—the primary contact left the program, the residency program closed or the department chair changed.
  - Lack of commitment on the part of the conference participant.

*Christian Furman, MD, established new palliative care training at the University of Louisville School of Medicine after participating in this project. More.*

**Types of Change**

- **Residency programs that made changes added new curricula in these areas:**
  
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  - Pain assessment and management (90% of programs)
  - Non-pain symptom assessment and management (90% of programs)
  - Communication skills (85% of programs)
  - New clinical experiences in palliative care or hospice such as rotations (65% of programs).

- **More than 50 percent of the new curricula in pain and non-pain assessment and management were small group, role-play and skills assessment rather than lectures.** Interactive teaching is the preferred way to educate residents and faculty about end-of-life care, according to the project director, since so much of it depends on the provider's attitude and communication skills. All new curricula were mandatory except for some hospice and palliative care rotations. Examples of curriculum changes include:

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  - Teaching interactive resident sessions on communicating bad news.
  - Holding meetings with residents, faculty and three older patients to talk about end-of-life issues.
  - Modifying a geriatrics rotation to include home health visits, hospice home visits, hospice admission visits and inpatient palliative care rounds.

For more examples, see Appendix 2.
Neurologist Peter Jacobson, MD, started a comprehensive palliative care training program for neurology residents at the University of North Carolina after participating in this project. More.

Faculty Development and Quality Improvement

- 40 percent of residency programs added faculty development programs. Faculty development could include a day-long faculty retreat focused on palliative care or a lecture series for faculty over several weeks.
- 15 percent of residency programs added quality improvement projects that could lead to curricular change. Quality improvement projects focused on collecting data to understand the need to improve training in specific topics (e.g., pain assessment), including through chart reviews.

LESSONS LEARNED

Provide Project Materials

1. Use a knowledge test at the beginning of a project to motivate people to make changes. Directors of participating residency programs reported that the single biggest motivator to change the curriculum was the knowledge examination faculty and residents completed. On average, they got only half the answers correct. This provided hard data that the residency programs needed to teach end-of-life care to their residents and faculty. (Project Director)

2. Provide the entire curriculum needed to teach a new subject. Eighty percent of residency programs reported using the curriculum materials the project provided and 85 percent reported using "Fast Facts." "That was one of the strongest parts of the program," Weissman said. "When they walked into the conference they received a giant bag of teaching materials. They didn't have to develop them. They don't have the time or expertise to do that." (Project Director)

3. Provide residency program directors with basic tools on how to teach. Project faculty discovered that many residency program directors, while committed to educational change, had little background in how to teach. In addition, much of this work focused on attitudes and communication skills, which is a more difficult type of teaching. To address this issue, project faculty developed a module on how to design a curriculum that included basic information such as how to write a lesson plan and how to entice learners to learn about a subject. (Project Director)

4. Provide residency program directors with adequate quality improvement tools and instruction on how to use them. Project faculty briefly covered quality improvement during the conferences and the faculty manual included some information about tools. However, the project director and faculty did not realize how unfamiliar residency program directors were with quality improvement and did not
emphasize the use of these tools. Few residency program directors (15%) used these tools to push curriculum change. (Project Director)

**Enlist Key Allies**

5. **Bring residents into any project that seeks to change residency education.** Starting with the first group of trainees (following the pilot project), project staff asked programs to send at least one resident along with the faculty to the conference. This proved to be invaluable. The residents were able to keep the faculty honest about what was and was not being taught and to provide information about topics of greatest interest for residents. Through this project, many residents developed an interest in palliative care. (Project Director)

6. **Enlist the aid of medical specialty societies and tie the curriculum into new training requirements when seeking to make educational change.** A criticism of this project, at inception, was that recruitment would be impossible due to a lack of interest in end-of-life care. The strong support of the specialty societies along with their requirements for end-of-life training led to more interest than the project directors could accommodate. (Project Director)

7. **Committed faculty members are the key to achieving change in educational settings.** The commitment of the project’s faculty to teaching and mentoring participants was key to achieving change in teaching end-of-life care in residency programs. Faculty follow-up with and mentoring of participants helped guide residency programs through the change process. Participating residency program directors and faculty, as well as residents, were impressed with the dedication of the project faculty, according to conference evaluations. (Project Director)

**AFTERWARD**

The project ended in August 2005. The End of Life/Palliative Education Resource Center continues to provide resources about end-of-life education. As of June 2006, the project director remained in contact with the residency program directors through the center’s listserv, and the project director and faculty continued data analysis on the published abstracts.

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APPENDIX 1

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APPENDIX 2

Changes in Residency Programs

(Current as of the end date of the program; provided by the program’s management; not verified by RWJF.)

Other changes that residency programs made in their end-of-life teaching:

- Sending out "Fast Facts" to faculty and residents to teach about palliative care and raise awareness of the need for more curricula in palliative care.

- Establishing a lecture series for residents on personal awareness about end-of-life, pain assessment, methods of pain control, non-pain symptom control (e.g., nausea, shortness of breath and coughing), breaking bad news, goal setting and advanced directives.

- Establishing a confidential group meeting twice a month so residents could talk about issues around dealing with patients who have died or who are suffering at the end of their lives.

- Carrying out chart reviews to identify patient assessment documentation and management problems in the hospital.

- Developing a palliative care consultation service.

- Distributing laminated cards that provide pain dosage information and guidelines for end-of-life discussions.

- Holding a half-day introduction to faculty on palliative care concepts.

- Setting up monthly palliative care morning case presentations.
APPENDIX 3

Profiles

(Current as of the end date of the program; provided by the program’s management; not verified by RWJF.)

**Neurologist Starts Comprehensive Palliative Care Training**

Before he enrolled in the National Residency End-of-Life Education Project, Peter Jacobson, MD, a neurologist, said he would give himself "a generous C minus" in his knowledge of palliative care. As a neurologist who works closely with patients with life-threatening diseases such as strokes and ALS (Amyotrophic Lateral Sclerosis), Jacobson said it was critical that he learn about palliative care and then teach it to others.

The skills and mentoring he received during the project led him to establish the palliative care program in the University of North Carolina's neurology residency program. Begun in January 2002, the program includes:

- Four core resident lectures (pain management, communicating bad news, ethics and legal aspects of end-of-life care and hospice).
- Four neurology grand rounds on end-of-life issues.
- A neurology resident journal club dedicated to end-of-life care articles.

Jacobson also gives all neurology residents a laminated card on pain management and pain dosage for use when caring for patients, as well as books on palliative care, articles on informed consent and patient treatment contracts and a booklet on hospice care that includes medical guidelines for determining prognosis in neurological diseases.

Jacobson and a chief resident did 50 chart reviews to see how the residents managed pain before the program began and six months after. Before the program started, "they never looked at pain levels of the patients that the nurses wrote down," Jacobson said. Because of that, residents did not adjust patients' pain medicine. As a result, on a scale of 1–10, with 10 being the worst, patients rated their pain as between 8 and 10. A comparison group in surgery had similar levels.

Six months later, a patient chart review showed that patients of neurology residents rated their pain between 1 and 2. Patients of surgical residents, who had not received palliative care training, continued to rate their pain at high levels.

Jacobson said that he also learned to change some of his own misconceptions and fears. In the past, he was reluctant to bring up hospice to patients because it seemed like admitting defeat. After the training, he saw that hospice can make a patient's quality of
life better and should be discussed soon after it becomes clear that the patient is going to die.

He pointed out that while hospice is closely associated with cancer patients, those with other diseases can benefit from hospice as well. So it is critical that specialists like neurologists become familiar with its benefits.

"For most physicians a lot of their resistance is due to a fear of not knowing something," he said. "Once you give them the knowledge, they're very comfortable. They get positive reinforcement so they do it more, and then they get more positive reinforcement."

**New Palliative Care Services at the University of Louisville**

When Christian Furman, MD, heard about the National Residency End-of-Life Education Project, she was a geriatrics fellow at the University of Louisville School of Medicine looking for a focus for her career. She knew that she would stay on at Louisville as a faculty member. After attending the two-day conference on palliative care, Furman found her focus.

"It was really Dr. Weissman's course that gave me the confidence and background about palliative care to know that there was a need for it and that not many people were doing it," she said. "It's made a powerful impact on me and made me change my career."

She said that the training provided her with practical information that she in turn used to train medical residents and faculty. One example is giving bad news.

Weissman told conference participants to give what he calls a "warning shot." That means preparing the patients for what is coming next by saying, "I've got some bad news." Doing so gives patients an opportunity to collect themselves, say they're not ready to hear bad news or tell the doctor they need to bring in a spouse first.

Before participating in the project, faculty at the internal medicine residency program at the University of Louisville had no curriculum in end-of-life care. As vice chair of geriatric medicine at the University of Louisville School of Medicine, Furman has shepherded several changes to bring palliative care knowledge to residents and faculty. These include:

- Initiation of a mandatory two-week rotation in palliative care for third-year internal medicine and internal medicine/pediatric residents starting in August 2000. Residents:
  - Work at the Veterans Affairs Medical Center in Louisville where they do inpatient hospice consults and palliative care consults.
  - Learn about pain management, symptom control, how to hold a family meeting and how to do advance directives, among other areas.
● Development of faculty in palliative care. Furman and her colleagues held a half-day retreat for internal medicine faculty in 2003 and a half-day educational session for family medicine faculty in 2005.

● Development of a palliative medicine fellowship in July 2004. Two fellows each year participate in a fellowship where they learn about palliative care in more depth. The fellows work at:
  — The Veterans Affairs Medical Center hospice unit in Louisville, where Furman is the chief of hospice and palliative medicine.
  — Hospice and Palliative Care of Louisville, a private, nonprofit hospice.

● The first two fellows have gone on to specialize in palliative care.

The family medicine program director plans to institute a mandatory two-week palliative care rotation for third-year family medicine residents beginning in 2007.

Furman, who is medical director of a local nursing home, has brought more end-of-life care to that setting. In nursing homes, the focus is often a patient's weight gain or loss and rehabilitation goals.

Furman began participating in weekly meetings where staff discussed care plans for residents. She made sure that those meetings included training on symptoms of pain and how to control pain. If the nurses could control pain better, than patients could stay in the nursing home to die rather than having to move to a hospital, Furman said.

The nursing home staff also began to talk to residents and family members about wishes for end-of-life care. And they began to include physician orders for life-sustaining treatment on each patient's chart. That way, when patients became seriously ill, staff members could follow their wishes.

Furman said that she was inspired to do all of this in part because the project introduced her to faculty at other teaching hospitals who were already working in palliative care. "I saw how palliative care fits into academics and had role models from the conference training who were successful in doing this," she said. "I thought, 'if they can do it, I can do it.'"
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