

Online article and related content current as of August 31, 2010.

Self-care of Physicians Caring for Patients at the End of Life: "Being Connected . . . A Key to My Survival"

Michael K. Kearney; Radhule B. Weininger; Mary L. S. Vachon; et al.

JAMA. 2009;301(11):1155-1164 (doi:10.1001/jama.2009.352)

http://jama.ama-assn.org/cgi/content/full/301/11/1155

Supplementary material Author in the Room" Teleconference

http://jama.ama-assn.org/cgi/content/full/301/11/1155/DC1

Correction Contact me if this article is corrected.

Citations

This article has been cited 3 times.

Contact me when this article is cited.

Topic collections Occupational and Environmental Medicine; Patient-Physician Relationship/ Care;

End-of-life Care/ Palliative Medicine; Perspectives on Care at the Close of Life

Contact me when new articles are published in these topic areas.

CME course Online CME course available.

Subscribe http://jama.com/subscribe

Permissions permissions@ama-assn.org http://pubs.ama-assn.org/misc/permissions.dtl

Email Alerts http://jamaarchives.com/alerts

Reprints/E-prints reprints@ama-assn.org

Self-care of Physicians Caring for Patients at the **End of Life**

"Being Connected . . . A Key to My Survival"

Michael K. Kearney, MD

Radhule B. Weininger, MD, PhD

Mary L. S. Vachon, RN, PhD

Richard L. Harrison, PhD

Balfour M. Mount, MD

THE CLINICIAN'S STORY

Dr *C* is a 45-year-old hematologist-oncologist in private practice for 11 years at a large, urban, community hospital. Dr *C* directs his hospital's clinical research program in oncology and has an appointment at the nationally ranked medical school in his city. He sees about 500 patients a month, 6000 patients a year, of whom 60 to 120 require end-of-life care. Dr *C* is married, with 3 school-aged children. He enjoys music, travel, tennis, and good food with friends. Dr *C* shared stories of Ms J and Mr B, 2 patients who had recently died on the same day. He had very different relationships with each.

Ms J, a 55-year-old woman, presented in 2003 with lymphadenopathy in the groin that proved on biopsy to be poorly differentiated adenocarcinoma. Further workup revealed an ovarian mass, liver metastases, and a CA 125 level of more than 1000 units, leading to a diagnosis of ovarian cancer. She did not smoke or drink alcohol. Ms J was single and was cared for lovingly by her mother. Ms J underwent surgery for debulking and then received 6 cycles of chemotherapy with carboplatin and paclitaxel, achieving good response. After approximately 12 months of remission, her tumor progressed, at which point she received cisplatin and gemcitabine, initially with good response. Subsequently, she developed symptomatic bone metastases. Renewed chemotherapy included doxorubicin, then topotecan, neither affording a response, and radiation therapy was given for the bone metastases.

When Ms J first came to see Dr C, in his words, "She was riddled with disease and in a lot of discomfort." Under his care she was able to work, travel, and enjoy her life for 4 years, at which point she had significant worsening of dis-



CME available online at www.jamaarchivescme.com and questions on p 1183.

©2009 American Medical Association. All rights reserved.

Physicians providing end-of-life care are subject to a variety of stresses that may lead to burnout and compassion fatigue at both individual and team levels. Through the story of an oncologist, we discuss the prodromal symptoms and signs leading to burnout and compassion fatigue and present the evidence for prevention. We define and discuss factors that contribute to burnout and compassion fatigue and consider factors that may mitigate burnout. We explore the practice of empathy and discuss an approach for physicians to maximize wellness through self-awareness in the setting of caring for patients with end-stage illness. Finally, we discuss some practical applications of self-care in the workplace.

JAMA. 2009:301(11):1155-1164

www.jama.com

ease. Ms J enrolled in hospice and, cared for by her mother, died at home.

Mr B was a 50-year-old single man with cutaneous B-cell follicular lymphoma. Mr B had type 2 diabetes mellitus, hypertension, and previous surgical resection of lung cancer. He smoked 1 pack of cigarettes a day but did not drink alcohol. Mr B was treated expectantly, but 6 months after initial diagnosis, he presented with pancytopenia, disseminated intravascular coagulation, fevers, weight loss, and diffuse lymphadenopathy. A lymph node biopsy confirmed a diagnosis of diffuse large-cell lymphoma. Mr B received rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone and had an ini-

Author Affiliations: Palliative Care Service, Santa Barbara Cottage Hospital and Visiting Nurse and Hospice Care of Santa Barbara (Dr Kearney), and La Casa de Maria Retreat and Conference Center (Dr Weininger), Santa Barbara, California Department of Psychiatry and Dalla Lana School of Public Health, University of Toronto, Toronto, Ontario, Canada (Dr Vachon); Counseling Psychology Program, University of British Columbia, Vancouver, Canada (Dr Harrison); and Department of Medicine, McGill University, Montreal, Quebec, Canada (Dr Mount). Corresponding Author: Michael K. Kearney, MD, Palliative Care Service, Santa Barbara Cottage Hospital, PO Box 689, Pueblo at Bath Street, Santa Barbara, CA 93102-0689 (mkearney@sbch.org).

Perspectives on Care at the Close of Life is produced and edited at the University of California, San Francisco, by Stephen J. McPhee, MD, Michael W. Rabow, MD, and Steven Z. Pantilat, MD; Amy J. Markowitz, JD, is managing editor.

Perspectives on Care at the Close of Life Section Editor: Margaret A. Winker, MD, Deputy Editor.

tial response with improvement in his disseminated intravascular coagulation and a decrease in serum lactate dehydrogenase level. However, by the time of his second cycle of chemotherapy, 3 weeks later, the disease had recurred with similar symptoms. He then received chemotherapy with etoposide, high-dose asparaginase, methylprednisolone, and cisplatin, but his disease progressed rapidly, leading to multisystem organ failure requiring ventilatory support. He could not be weaned from the ventilator, his disease continued to progress, and he died in the intensive care unit. Throughout Mr B's illness, Dr C never saw any family members, although many friends were at his bedside the night before he died.

Dr C was interviewed by a Perspectives editor in November 2007.

PERSPECTIVES

DR C: [Ms J] had ovarian cancer for 3 to 4 years. . . . It was a real challenge to keep her out of pain. About a month before she died, she brought in a box of beautiful watercolor floral prints that she had painted and gave me one.

I don't want to be devastated by a loss, like . . . if they were a parent or a child, but at the same time, there's a big difference between that and not caring or not marking it. . . . I said good-bye to her, I had this beautiful watercolor, and then I had my 9:15 appointment. You have 20 other people on your calendar that you have to take good care of. You have to be able to function well and make good decisions and not mope around. What I see, when I look back on [Ms J], is the 4 years of good quality life that she had, . . . the caring that I gave her, and the caring that she gave to me, not only in the day-to-day kindness and appreciation, but in the ability and willingness to share something that she had created.

[Mr B] died of lymphoma on a ventilator in the ICU [intensive care unit]. That's exactly how I don't want people to die. . . . Then, I feel that I didn't live up to the expectations that I set for myself. There will be unresolved feelings about it.

Overview

Dr C and his patients illustrate the importance of selfawareness and self-care for physicians who care for dying patients. Below, we discuss the specific risks of this work and offer strategies to mitigate them, which in turn promote professional satisfaction. We propose an approach to clinician self-care based on self-awareness, which can enhance the well-being of clinicians and dying patients alike. 1,2

We focus on 2 syndromes, burnout and compassion fatigue, and discuss the related concepts of job engagement, compassion satisfaction, and vicarious posttraumatic growth. The literature we draw on for evidence includes oncology,³ palliative care, 4,5 psychotherapy, and trauma 6-8 because clinicians in these fields face many of the same challenges and rewards.

Burnout and Compassion Fatigue

Burnout results from stresses that arise from the clinician's interaction with the work environment9 while compassion

fatigue evolves specifically from the relationship between the clinician and the patient. 10 Clinicians who care for dying patients are at risk of both, 11 although the factors that lead to each and the responses to mitigate and prevent them are distinct. There is considerably more published research regarding burnout than compassion fatigue.

Burnout

DR C: The stuff that burns me out has nothing to do with loss. . . . It's fighting insurance companies . . .

Burnout is a form of mental distress manifested in normal individuals who experience decreased work performance resulting from negative attitudes and behaviors. 12 Burnout is a stronger predictor than depression for a lower satisfaction with career choice, and it is associated with poorer health. 13,14 Burnout is associated with suboptimal patient care practices and medical errors by physicians¹⁵ and with lower satisfaction and longer postdischarge recovery by patients. 16

Symptoms and signs of burnout include both individual and team factors (Box 1). As Dr C's comment suggests, burnout is a result of frustration, powerlessness, and inability to achieve work goals. 18 Six areas of work life encompass the major organizational antecedents of burnout: workload, control, reward, community, fairness, and values. 9,12 Emotional work variables (eg, requirements to display or suppress emotions on the job or to be empathic) account for additional variance in burnout scores over and above job stressors.9 The greater the mismatch between the person and the work environment, the greater is the likelihood of burnout. A better match or fit is associated with greater engagement with work.9

The Key Dimensions of Burnout. Dimensions of burnout include emotional exhaustion, feelings of cynicism and depersonalization (detachment from the job), 12 and a sense of ineffectiveness and lack of personal accomplishment. 19

Emotional exhaustion refers to feelings of being overextended and depleted of one's emotional and physical resources. Exhaustion prompts efforts to cope by distancing oneself emotionally and cognitively from work. 12 Depersonalization refers to negative, callous, or excessively detached responses to various aspects of the job and is another distancing mechanism. 12 Lack of personal accomplishment refers to feelings of incompetence and underachievement at work. It may arise from a lack of resources (eg, critical information, tools, or time) to get the work done and may be directly related to emotional exhaustion and depersonalization or be independent of them.19

Demographic Variables Associated With Burnout. Younger caregivers report more stressors and exhibit more manifestations of stress and fewer coping strategies²⁰; they are more prone to burnout and stress reactions. 13,21-24 In contrast, caregivers with more years of experience are less likely to report stress-related symptoms and burnout. 20,25

Caregivers with more responsibility for dependents, whether children or elderly parents, reported more stress.²²

©2009 American Medical Association. All rights reserved.

1156 JAMA, March 18, 2009—Vol 301, No. 11 (Reprinted)

For both women and men, the greater the number of children at home, the more difficulty with work-life balance and emotional exhaustion but not with career satisfaction or personal accomplishment. However, being single is an independent risk factor for burnout. Although most studies show women to be at higher risk for burnout and mental health problems, Accomparison of 2 surveys on the mental health of UK National Health Service physicians (880 consultants in 1994 compared with 1308 in 2002) found male and middle-aged consultants to be particularly at risk.

Personality Factors Associated With Burnout. Highly motivated health professionals with intense investment in their profession are at a greater risk for the development of burnout.29 The compulsive triad of doubt, guilt, and (an exaggerated sense of) responsibility can have an enormous impact on physicians' professional, personal, and family lives. 30,31 Diminished awareness of one's physical and emotional needs leads to a self-destructive pattern of overwork. A psychology of postponement takes root, in which physicians habitually delay in attending to their significant relationships and other sources of renewal until all the work is done or the next professional hurdle is achieved.³⁰ Previous mental health problems (especially depression), personality traits (intensity and impulsivity), medical school stress, and a wishful-thinking coping style were all found to be significant predictors of self-reported mental health problems in medical students.32

Compassion Fatigue

Compassion fatigue has been described as the "cost of caring" for others in emotional pain that has led helping professionals to abandon their work with traumatized persons. 10(p7) Some researchers consider compassion fatigue to be similar to posttraumatic stress disorder (PTSD), except that it applies to those emotionally affected by the trauma of another (eg, client or family member) rather than by one's own trauma. 10 Compassion fatigue is also known as secondary or vicarious traumatization. 10,33 In contrast to burnout, the clinician with compassion fatigue can still care and be involved, albeit in a compromised way. 34 Compassion fatigue may lead to burnout. 33

Symptoms of compassion fatigue parallel 3 domains of the classic symptomatology of PTSD: *hyperarousal*, disturbed sleep, irritability or outbursts of anger, and hypervigilance; *avoidance*, "not wanting to go there again" and the desire to avoid thoughts, feelings, and conversations associated with the patient's pain and suffering³⁵; and *re-experiencing*, intrusive thoughts or dreams, and psychological or physiological distress in response to reminders of work with the dying.³⁶

The Costs of Caring for Patients at the End of Life

DR C: If there came a time when I was so inured to death or suffering that I did not want to say good-bye or it became too difficult to sustain these losses repeatedly, I would say, "God

©2009 American Medical Association. All rights reserved.

Box 1. Symptoms and Signs of Burnouta

Individual

Overwhelming physical and emotional exhaustion

Feelings of cynicism and detachment from the job

A sense of ineffectiveness and lack of accomplishment

Overidentification or overinvolvement

Irritability and hypervigilance

Sleep problems, including nightmares

Social withdrawal

Professional and personal boundary violations

Poor judgment

Perfectionism and rigidity

Questioning the meaning of life

Questioning prior religious beliefs

Interpersonal conflicts

Avoidance of emotionally difficult clinical situations

Addictive behaviors

Numbness and detachment

Difficulty in concentrating

Frequent illness—headaches, gastrointestinal disturbances, immune system impairment

Team

Low morale

High job turnover

Impaired job performance (decreased empathy, increased absenteeism)

Staff conflicts

^aBased on Maslach et al⁹ and Vachon.¹⁷

forbid!" I'd know it was time for me to get out.... I would hate it, be disgusted with myself, and know that this has damaged me.

There has been considerable research into the epidemiology of burnout in oncology and palliative care.* In a study involving 76 house staff, 102 oncologists, and 83 nurses at Memorial Sloan-Kettering Cancer Center, Kash et al²² reported that all 3 groups had a higher mean score for emotional exhaustion and diminished empathy (depersonalization) than general medicine physicians and nurses, but their mean scores for a sense of personal achievement was similar. In a review of 23 studies of burnout in oncology, of which 18 were published in 2000 or later, 8 were conducted in the United States, and 2 included international participants. Most articles did not report overall burnout scores. However, 28% of surgical oncologists had burnout, which was more common in respondants 50 years and

*References 4, 5, 13, 14, 17, 20-25, 27, 28, 37-45.

younger (31% vs 22%) and in women (37% vs 26%).¹³ A study that involved a similar population and instrument found that oncologists' burnout decreased over time from 56% of 598 participants⁴⁰ to 34% of 1200 participants.²⁵ In another sample of 1740 US oncologists,⁴¹ 61.7% reported burnout.

A number of studies have reported that clinicians involved in palliative care had neither more nor less stress and burnout than other health professionals. 4,17,39 Two international studies comparing oncology and palliative care physicians found that palliative care specialists experience less stress than oncologists in the United Kingdom $(N=393)^{21}$ and Japan (N=687). 37

Such results may derive from the support palliative care team members give to one another. ^{17,20,39,47} This approach might benefit staff in oncology. However, oncology staff often have had long-standing relationships with patients with at least an initial hope that treatment would prolong life. Therefore, oncologists may feel more personally distressed when their patients become sicker and die. ²⁰

In Maslach and Jackson's⁴⁶ normative sample of US physicians and registered nurses, a third each had high emotional exhaustion, high depersonalization, and low personal accomplishment. These characteristics contribute to burnout.

Emotional Exhaustion. Emotional exhaustion, as measured as a component of the Maslach Burnout Inventory scale, responds most readily to the organizational environment and social interactions that characterize human service work. 46 Two studies documented very high rates of emotional exhaustion (53.3% and 69% among oncologists) 38,41 compared with a rate of 37.1% among allied health staff caring for their patients. 38 In contrast, one study documented a very low rate (15%) of emotional exhaustion in Japanese palliative care physicians. 37

Depersonalization. Oncologists and oncology nurses in both the United States and internationally have reported rates of depersonalization ranging from 10% to 25%. ^{13,21,37,38,44} In another study, ²² house staff scored significantly higher rates of depersonalization than oncologists, but nurses had lower rates than both house staff and oncologists. The lowest reported rate of depersonalization was 4% among nonphysician health staff in a Canadian study. ³⁸

Low Personal Accomplishment. One-third of Canadian gynecologic oncologists,⁴⁵ about one-half of Ontario oncologists and allied health professionals,³⁸ about one-half of Japanese palliative care physicians,³⁷ and two-thirds of Japanese oncologists³⁷ who had participated in the studies reported feelings of low personal accomplishment. American surgical oncologists were least likely to report such feelings (9.6%).¹³

Psychiatric Disturbance. Rates of psychiatric disturbances, including depressive symptoms, anxiety, and sleep disturbances, ^{22,37,38,42,45} in clinicians working in end-of-life care ranged from 12% in a study of palliative care physi-

cians³⁷ to between one-quarter and one-third of oncologists in other studies.^{38,42,45} One study found that women had more psychological distress and demoralization than men (30% vs 24.5%) and house staff had more than attending oncologists (30% vs 21.6%).²²

Work Environment Stressors

In several studies of oncologists, work overload was at least 1 major source of burnout. ^{20,21,41,45} Palliative care practitioners ^{4,39} have identified the following factors as stressors in their subspecialty: constant exposure to death, inadequate time with dying patients, growing workload and increasing numbers of deaths, inadequate coping with one's own emotional response to dying patients, ⁴ the need to carry on "as usual" in the wake of patient deaths, communication difficulties with dying patients and relatives, identification with or developing friendships with patients, ³⁹ inability to live up to one's own standards (eg, internalized responsibility to provide a "good death"), ³⁹ and feelings of depression, grief, and guilt in response to loss. ^{4,20,39}

The Rewards of Caring for Patients at the End of Life

DR C: A patient may relapse and die of his disease. But, in the effort that he and I both put into this as partners in fighting his disease, there's great solace. . . . I hope to do my very best in helping him die with ease.

Despite its challenges, experienced palliative care providers describe feelings of satisfaction and gratitude and enhanced appreciation of spiritual and existential domains of life as a result of their work with dying persons. These include an appreciation of the reciprocal healing process, which occurs through meaningful caregiver-patient relationships; inner self-reflection, connection with peers, family, and community; and a heightened sense of spirituality. 48,49

Not all clinicians working at the end of life experience this reciprocal relationship with patients. A face-to-face survey and in-depth semistructured interview of 18 academic oncologists⁵⁰ found that physicians who considered their physician role to encompass both biomedical and psychosocial aspects of care viewed the process of effective end-of-life care as very satisfying. In contrast, participants who described primarily a biomedical role reported a more distant relationship with the patient, a sense of failure at not being able to alter the course of the disease, and an absence of collegial support.⁵⁰

Job Engagement

DR C: I don't do as perfect a job with everyone as I wish I could, but I do a very good job for most people.

Job engagement is the opposite of burnout and is characterized by energy, involvement, and efficacy in the workplace. A sense of competence, pleasure, and control in one's work can be a major coping strategy for clinicians engaged in end-of-life care. 5,17,20 Sustainable workload, feelings of choice and control, appropriate recognition and reward, sup-

©2009 American Medical Association. All rights reserved.

1158 JAMA, March 18, 2009—Vol 301, No. 11 (Reprinted)

portive work community, fairness and justice, and meaningful, valued work all contribute to job engagement among clinicians who work in end-of-life care.

Factors Mitigating Burnout

The personality characteristic of hardiness—a sense of commitment, control, and challenge^{51,52}—helped to alleviate burnout in oncology staff and was associated with a greater sense of personal accomplishment. 14,22 Factor analysis of data from a cross-sectional national survey mailed in 2004 to 2000 physicians (48% response rate)26 was used to assess worklife balance, career satisfaction, personal accomplishment, and emotional resilience (the opposite of emotional exhaustion). Most respondents were highly satisfied with their careers (79% women vs 76% men). About half had moderate levels of satisfaction with work-life balance (48% vs 49%). Measures of burnout strongly predicted career satisfaction. Both women and men reported moderate levels of emotional resilience (51% vs 53%) and high levels of personal accomplishment (74% for both). Measures of personal accomplishment and emotional resilience were both strong and significant predictors of career satisfaction, after adjusting for work and demographic variables. Having some control over schedule and hours worked was the strongest work characteristic related to emotional resilience.²⁶ This is similar to an earlier finding of a sense of competence, control, and pleasure in one's work which was the highest ranked coping mechanism of 584 caregivers to the critically ill, dying, and bereaved.20

Application of the 12-item General Health Questionnaire to a random sample of 74 breast cancer teams in the United Kingdom (548 members in 6 core disciplines)⁵³ found that their mental health appeared to be significantly better than that of other National Health Service cancer clinicians (27%²¹ vs 32%²⁸). The authors suggested that team sharing of responsibility for decision making and team support, caring for newly diagnosed patients, and working with patients with breast cancer who generally have a better prognosis than patients with other solid tumors and perhaps selection bias of those who returned questionnaires could have contributed to this difference. Teams with shared leadership in clinical decision making were most effective.

Shanafelt and colleagues³ found greater work satisfaction in oncologists who used wellness strategies in caring for themselves as they care for others. In another study, Shanafelt et al³¹ noted the importance of physicians' shaping their career path to finding satisfaction in their work.

Studies of caregivers in end-of-life care have highlighted the importance of spirituality and meaning in preventing burnout. ^{6,48} Caregivers in oncology who rated themselves as being religious had a decreased risk of burnout. ²² Huggard ⁵⁴ studied 230 New Zealand physicians and found an inverse correlation between burnout and spirituality.

Some practical measures that may be used to reduce burnout and promote job engagement are outlined in Box 2.

©2009 American Medical Association. All rights reserved.

Box 2. Measures That May Help Prevent Burnout^a

Mindful meditation55,56

Reflective writing^{55,56}

Adequate supervision and mentoring⁵⁷⁻⁵⁹

Sustainable workload^{9,13,19}

Promotion of feelings of choice and control^{20,31}

Appropriate recognition and reward9,19

Supportive work community9,19

Promotion of fairness and justice in the workplace 9,12,19

Training in communication skills^{60,61}

Development of self-awareness skills^{6,62}

Practice of self-care activities3,6,62

Continuing educational activities 13,63,64

Participation in research 13,65,66

Mindfulness-based stress reduction for team⁶⁷

Meaning-centered intervention for team⁶⁸

^aThere are varying levels of evidence for the efficacy of these interventions. Randomized trials have shown the effectiveness of mindfulness meditation and reflective writing.

If distress persists despite use of these practices, and particularly if any objective impairment in functioning occurs, the clinician should seek psychiatric evaluation and treatment.

Compassion Satisfaction

DR C: When somebody does die, and you feel like you cared for them well during life. . . . and allowed them to . . . create the kind of death that they would want, then there is . . . peace between you and the patient.

Compassion satisfaction is pleasure derived from the work of helping others. Acknowledging the risks of work-related secondary exposure to trauma, Stamm⁶⁹ identified compassion satisfaction as a possible factor that counterbalances the risks of compassion fatigue and suggested that this may in part account for the remarkable resiliency of the human spirit.

Posttraumatic Growth and Vicarious Posttraumatic Growth

DR C: I joke that it's kind of like being an emotional Houdini. I see the good and not just the loss, even as people die.

Posttraumatic growth^{70,71} is characterized by positive changes in interpersonal relationships, sense of self, and philosophy of life subsequent to direct experience of a traumatic event that shakes the foundation of an individual's worldview.⁷⁰⁻⁷² Posttraumatic growth is not uncommon and may occur concurrently with negative sequelae of trauma.⁷¹

The term *vicarious posttraumatic growth* describes the phenomenon of clinician growth that results from witnessing positive sequelae of other people's experiences of trauma. This may include the clinician's feelings that his or her own life has been enriched, deepened, or empowered by witnessing the patient's or family's posttraumatic growth. When patients experience meaning and peacefulness in relation to their approaching death, this enriches the lives of the clinicians involved. This phenomenon appears similar to the "healing connections" identified by Mount and colleagues. 4

Research has provided empirical evidence for the construct of vicarious posttraumatic growth.^{6,7} Exemplary therapists who were thriving in their work with traumatized clients experienced positive shifts in their sense of meaning or spirituality. Therapists enrolled in a study⁶ described having gained an expanded worldview, even paradoxically feeling enriched, as a result of witnessing the sequelae of other people's experiences of trauma. Research on exemplary oncology nurses has focused on moments of connection, making moments matter, and energizing moments.⁷⁵

Factors Mitigating Compassion Fatigue

Useful information about the mechanism that accounts for the transmission of traumatic stress from one individual to another, potentially leading to compassion fatigue, can be gained by focusing attention on empathy. ⁷⁶ Figley ¹⁰ hypothesized that the caregiver's empathy level with the traumatized individual plays a significant role in the transmission of traumatic stress. ⁷⁶ Empathic engagement in the traumatherapy relationship has been posited as a key causal factor and a liability in conceptualizations and definitions of compassion fatigue. However, more recent research discussed below calls into question existing assumptions about the presumed causal relationship between caregiver empathy and compassion fatigue.

Exquisite Empathy

Qualitative research on peer-nominated, exemplary therapists who were thriving in their work with traumatized clients, including palliative care patients and their families, has identified a variety of protective practices that enhance caregivers' professional satisfaction and help prevent or mitigate compassion fatigue. In particular, trauma therapists who engaged in *exquisite empathy*, defined as "highly present, sensitively attuned, well-boundaried, heartfelt empathic engagement," were "invigorated rather than depleted by their intimate professional connections with traumatized clients" and protected against compassion fatigue and burnout. This idea, which has also been referred to as *bidirectionality*, refutes the commonly held notion that being empathic to dying patients must lead to emotional depletion. 10,77-79

The practice of exquisite empathy is facilitated by clinician self-awareness, 6 which was identified in another study

as the most important factor in psychologists' functioning well in the face of personal and professional stressors.⁸⁰

Self-awareness to Enhance Self-care

Self-awareness involves both a combination of self-knowledge and development of *dual-awareness*, a stance that permits the clinician to simultaneously attend to and monitor the needs of the patient, the work environment, and his or her own subjective experience.

When functioning with less self-awareness, clinicians are more likely to lose perspective, experience more stress in interactions with their work environment, experience empathy as a liability, and have a greater likelihood of compassion fatigue and burnout. Clinicians functioning with greater self-awareness may experience greater job engagement with less stress in interactions with their work environment, experience empathy as a mutually healing connection with their patients, and derive compassion satisfaction and vicarious posttraumatic growth. Self-awareness may both enhance self-care⁸¹ and improve patient care and satisfaction. ^{82,83}

Methods of self-care that do not involve enhanced self-awareness, such as maintaining clear professional boundaries, offer protection from occupational stressors and can make possible renewal outside of work. However, an exclusive reliance on such approaches to self-care has limitations and can result in a clinician who is less emotionally available to patients and who experiences work as less rewarding. ⁵⁰ A clinician who adopts a self-awareness-based approach to self-care may be able to remain emotionally available in even the most stressful of clinical situations. ⁶ This approach enhances the potential of the work itself to be regenerative and fulfilling for the clinician. Physicians with burnout who use self-care without self-awareness may feel as though they are drowning and barely able to come up for air, whereas self-care with self-awareness is like learning to breathe underwater.

Developing Self-awareness

Self-awareness is an innate psychological function that may expand one's range of choices and allow for more creative responses in any given situation. In times of stress, self-awareness may collapse into a constricted view of reality and more reactive patterns of behavior, but self-awareness can be actively fostered and strengthened. Some data suggest that doing so can lead to neurobiological changes, including the establishment of new neural pathways. 84-86

There are a number of practical ways of enhancing self-awareness. These include initiatives such as participation in educational projects^{63,64} and peer-support (Balint) groups.^{87,88} Two methods of enhancing self-awareness that have empirical data to support their effectiveness are mindfulness meditation^{62,89-91} and reflective writing.^{92,93}

Mindfulness Meditation Practice. Mindfulness meditation refers to a process of developing careful attention to minute shifts in body, mind, emotions, and environs while

©2009 American Medical Association. All rights reserved.

1160 JAMA, March 18, 2009—Vol 301, No. 11 (Reprinted)

Box 3. Some Suggested Self-care and Self-awareness Practices in the Workplace^a

As you walk from your car to your workplace or through the corridors of your workplace, attend carefully to the sensation of contact between your feet and the ground.

Set your watch or telephone alarm for midday each day. Use this as a prompt to perform some simple act of centering, eg, take 4 deep, slow breaths; think of a loved one; recite a favorite line of poetry or a prayer; imagine weights around your waist and the words "ground, down."

Reward yourself after the completion of a task, eg, an early coffee break.

Call a "time out" (usually just a few minutes) as way of dealing with emotional flooding after a traumatic event; call a colleague saying, "I need a walk" or a break.

Stop at a window in your workplace and notice something in nature; consciously give it your full attention for a few moments.

Take half a minute of silence or take turns to choose and read a poem at the beginning of weekly interdisciplinary team meetings.

Before going into the next patient's room, pause and bring your attention to the sensation of your breathing for 2 to 5 breaths.

Take a snack before the end of clinic to prevent neuroglycopenia.

Stay connected to the outside world during the day, eg, check in with loved ones.

Multitask self-care, eg, dictate or meditate while using the treadmill in your office.

Use the suggested 20 seconds of hand washing in creative ways, eg, pay attention to the sensation of the water on your skin and allow yourself to sink into this experience; make this an act of conscious receiving by acknowledging to yourself "I am worthy of my own time"; or repeat a favorite line from a poem or prayer; or sing yourself "Happy Birthday!"

Don't be afraid to ask the question, "Is it time for a break?"

Deliberately make connections during the day with colleagues and with patients, eg, use humor; look for something particular or unusual in the patient's room; or notice patient's birth date or age.

Keep a notebook and write "field notes" on traumatic or meaningful encounters and events; occasionally take time at interdisciplinary team meetings to share this material.

Deliberately develop a "role-shedding ritual" at the end of the day, eg, pay attention to putting away your stethoscope or hanging up your white coat; use the drive home from work deliberately, eg, take the longer more interesting route; listen attentively to the news, music, or books-on-tape.

The following are verbatim descriptions of self-care practices from a sample of experienced clinicians, some of whom have been working in end-of-life care for more than 30 years:

"I recite the words 'make me an instrument of thy peace' as I approach the hospital and before going into a situation I do not know how to handle."

"I always try to figure out some way to touch the patient during the visit . . . shake hands, do even a small part of the physical exam. When I check the blood pressure, I hold the patient's arm in between my side and my arm, which is both an accurate and intimate technique that helps me feel really connected."

"While taking the blood pressure, I ask patients to breathe slowly through their nose, and I mirror their breathing with my own."

"I practice daily meditation before leaving my office for rounds or clinic."

"I pause mindfully prior to each new patient or new intervention, eg, while scrubbing prior to each surgical operation. I silently acknowledge my fellow-traveler connection to the patient prior to our discussion. I consciously monitor my sense of inner stress during the encounter and respond by intentionally returning to the place of quiet within, by briefly focusing on the lower retro-sternal region. I visualize a healing connection (my wife, dog, friend) as I move between patients."

"As I wash my hands I say to myself, 'May the universal life-force enable me to treat my patients and colleagues with compassion, patience, and respect.'"

^aBased on the experience of the authors and their colleagues.

holding a kind, nonjudgmental attitude toward self and others. 90,94

The practice of mindfulness meditation simultaneously raises physicians' consciousness of their inner reality (physical, emotional, and cognitive) and of the external reality with which they are interacting. ⁹⁵ It teaches the physician to develop a "kind, objective witnessing attitude" toward himself or herself ⁹⁶ and helps to develop empathy for others. ⁹⁷

Mindfulness meditation is now widely used by both clinicians and patients for its psychological benefits in a variety of health care settings, such as the Stress Reduction and Relaxation Program of the University of Massachusetts Medical Center.⁹⁰ The psychological benefits include reduc-

ing anxiety; enhancing a sense of well-being; alleviating pain; increasing empathy; tapping repressed material in the unconscious; and gaining a greater sense of self-actualization, self-responsibility, and self-directedness. 95-98

A matched, randomized trial examined the effect of an 8-week mindfulness-based intervention on medical and premedical students. The intervention group reported significantly less depression and anxiety and greater empathy compared with a wait-list control group, even though post-intervention data acquisition coincided with the participants' school examinations.⁹⁹

Individuals experiencing burnout and compassion fatigue tend to display an increasing lack of compassion to-

©2009 American Medical Association. All rights reserved.

ward themselves and others and experience a shift of worldview, such as a loss of belief in basic goodness and spiritual interconnectedness. ^{10,33,34} Mindfulness meditation is reported to develop and enhance a person's capacity to feel both self-compassion and empathy for others. ¹⁰⁰ Self-compassion has been demonstrated to protect against anxiety and promote psychological resiliency. ¹⁰¹

Reflective Writing. Writing in a reflective and emotionally expressive way is another form of self-care that enhances self-awareness. There are demonstrated somatic 102-105 and psychological benefits in patients 56,106 to this practice, and it has been extended to promote reflection and empathic engagement in physicians. 107,108 Charon introduced a method called "parallel charting" in medical training that involves medical students' recording personal thoughts and feelings in a journal in parallel to the objective clinical data they document in the patients' medical records. The students then meet on a regular basis to read their accounts to each other. 107

Different ways of practicing reflective writing have been suggested. ^{107,109,110} Spann¹¹¹ described one simple method as, "Keep the pen moving; welcome everything; don't worry about errors; let the subject choose you; write for your eyes only; feelings, feelings, feelings; and details, details,"

Practicing Self-Care

DR C: [A] Imost every night, my 7-year-old daughter comes running into my arms when I come through the door. It's like she barrels into me at full speed. If my hands aren't empty and I'm not able to absorb the force of her, we'd both be bowled over. It's almost like the physical impact . . . literally shocks me, physically, into being connected with my family and not with work when I step over the threshold. I love it . . . That's definitely a key to my survival. It's nothing I ask for; it just comes from her heart.

Although physician self-care may happen through some of the formal practices and methods discussed above, it may also happen in countless informal ways as an everyday part of a physician's working life. Many experienced physicians have evolved what are sometimes unique yet time-tested methods of self-care. For example, Dr C's homecoming has become a ritual of shedding his role, reconnecting to his loved ones, and healing. Each of us might consider how we could integrate practical and effective moments of self-care into the fabric of our working day. A collection of suggested self-care and self-awareness practices in the workplace are listed in Box 3.

Physicians working with patients at the end of life frequently have to respond to overwhelming human suffering in the absence of adequate institutional support or resources. In this context, the idea of "self-care" may seem a selfish irrelevance and an unjustifiable luxury. In fact, self-care is an essential part of the therapeutic mandate.³ Self-care enables physicians to care for their patients in a sustainable way with greater compassion, sensitivity, effective-

ness, and empathy. 62 As Shapiro 112 cogently put it, "The heart must first pump blood to itself."

Financial Disclosures: None reported.

Funding/Support: The Perspectives on Care at the Close of Life section is made possible by a grant from the Archstone Foundation.

Role of the Sponsor: The funding organization had no role in the in the collection, analysis, and interpretation of the data, or in the preparation, review, or approval of the manuscript.

Other Sources: For a list of relevant Web sites, see the article on the JAMA Web site at http://www.jama.com.

Additional Contributions: We thank Lawrence Spann, PhD, Sansun Clinic, Santa Barbara, California, for his help with the section on reflective writing for which he received no compensation, and we thank our colleagues who generously shared their self-care practices for Box 3.

REFERENCES

- **1.** Barnard D, Towers A, Boston P, Lambrinidou Y. *Crossing Over: Narratives of Palliative Care.* New York, NY: Oxford University Press; 2000.
- 2. Katz R. When our personal selves influence our professional work: an introduction to emotions and countertransference in end of life care. In: Katz RS, Johnson TA, eds. When Professionals Weep: Emotional and Countertransference Responses in End-of-Life Care. New York, NY: Routledge; 2006:3-12.
- **3.** Shanafelt TD, Novotny P, Johnson ME, et al. The well-being and personal wellness promotion strategies of medical oncologists in the North Central Cancer Treatment Group. *Oncology*. 2005;68(1):23-32.
- 4. Vachon MLS, Sherwood C. Staff stress and burnout. In: Berger AM, Shuster JL, Von Roenn JH, eds. *Principles and Practice of Palliative Care and Supportive Oncology*. 3rd ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2007: 667-686
- Vachon MLS, et al. Stress and burnout in palliative medicine. In: Walsh D, Caraceni AE, Fainsinger R, eds. Palliative Medicine. Philadelphia, PA: Elsevier; 2008: 75-83
- **6.** Harrison RL, Westwood MJ. Preventing vicarious traumatization of mental health therapists: identifying protective practices. *Psychotherapy: Theory, Research, Practice Training.* In press.
- 7. Linley PA, Joseph S, Loumidis K. Trauma work, sense of coherence, and positive and negative changes in therapists. *Psychother Psychosom*. 2005;74(3): 185-188
- **8.** Gentry JE, Baranowski AB, Dunning K. The accelerated recovery program (ARP) for compassion fatigue. In: Figley CR, ed. *Treating Compassion Fatigue*. New York, NY: Brunner-Routlege; 2002.
- 9. Maslach C, Schaufeli WB, Leiter MP. Job burnout. Annu Rev Psychol. 2001; 52:397-422.
- **10.** Figley CR, ed. Compassion Fatigue: Coping With Secondary Traumatic Stress Disorder in Those Who Treat the Traumatized. New York, NY: Brunner/Mazel; 1995.
- **11.** Rohan EA. An Exploration of Vicarious Traumatization: Effects of Repeated Exposure to Death and Dying on Oncology Social Workers, Physicians and Nurses [dissertation]. Boston, MA: Boston University; 2005.
- 12. Maslach C, Leiter MP. Early predictors of job burnout and engagement. *J Appl Psychol*. 2008;93(3):498-512.
- 13. Kuerer HM, Eberlein TJ, Pollock RE, et al. Career satisfaction, practice patterns and burnout among surgical oncologists: report on the quality of life of members of the Society of Surgical Oncology. *Ann Surg Oncol.* 2007;14(11):3043-3053
- **14.** Vachon MLS, et al. Oncology staff stress and related interventions. In: Holland JC, Breitbart WS, Jacobsen PB, eds. *Psycho-Oncology*. 2nd ed. New York, NY: Oxford University Press. In press.
- **15.** West CP, Huschka MM, Novotny PJ, et al. Association of perceived medical errors with resident distress and empathy: a prospective longitudinal study. *JAMA*. 2006;296(9):1071-1078.
- **16.** Halbesleben JRB, Rathert C. Linking physician burnout and patient outcomes: exploring the dyadic relationship between physicians and patients. *Health Care Manage Rev.* 2008;33(1):29-39.
- **17.** Vachon MLS. Staff stress in hospice/palliative care: a review. *Palliat Med.* 1995; 9(2):91-122.
- **18.** Valent P. Diagnosis and treatment of helper stresses, traumas, and illnesses. In: Figley CR, ed. *Treating Compassion Fatigue*. New York, NY: Brunner-Routledge; 2002:17-37.
- **19.** Maslach C. Job burnout: new directions in research and intervention. *Curr Dir Psychol Sci.* 2003;12(5):189-192.
- 20. Vachon MLS. Occupational Stress in the Care of the Critically III, the Dying and the Bereaved. New York, NY: Hemisphere; 1987.
- 21. Ramirez AJ, Graham J, Richards MA, et al. Burnout and psychiatric disorder among cancer clinicians. *Br J Cancer*. 1995;71(6):1263-1269.

©2009 American Medical Association. All rights reserved.

- 22. Kash KM, Holland JC, Breitbart W, et al. Stress and burnout in oncology. *Oncology (Williston Park)*. 2000;14(11):1621-1633; discussion 1633-1634, 1636-1637.
- 23. Ramirez AJ, Graham J, Richards MA, Cull A, Gregory WM. Mental health of hospital consultants: the effect of stress and satisfaction at work. *Lancet*. 1996; 347(9003):724-728.
- **24.** Armstrong JL, Holland J. Survey of medical oncology fellows' burnout, communication skills, and perceived competencies. *J Clin Oncol*. 2004;22(14S) (suppl):8132.
- **25.** Whippen DA, Zuckerman EL, Anderson JW, Kamin DY, Holland JC. Burnout in the practice of oncology: results of a follow-up survey. *J Clin Oncol*. 2004; 22(14S):6053.
- **26.** Keeton K, Fenner DE, Johnson TRB, Hayward RA. Predictors of physician career satisfaction, work-life balance, and burnout. *Obstet Gynecol*. 2007;109 (4):949-955.
- 27. Graham J, Ramirez AJ, Cull A, Finlay I, Hoy A, Richards MA. Job stress and satisfaction among palliative physicians. *Palliat Med*. 1996;10(3):185-194.
- **28.** Taylor C, Graham J, Potts HWW, Richards MA, Ramirez A. Changes in mental health of UK hospital consultants since the mid-1990's. *Lancet*. 2005;366 (9487):742-744.
- **29.** Leiter M, Maslach C. A mediation model of job burnout. In: Antoniou A, Cooper CL, eds. *Research Companion to Organizational Health Psychology*. Cheltenham: Edward Elgar Publishing; 2005:544-564.
- **30.** Spickard A Jr., Gabbe SG, Christensen JF. Mid-career burnout in generalist and specialist physicians. *JAMA*. 2002;288(12):1447-1450.
- **31.** Shanafelt T, Chung H, White H, Lyckholm LJ. Shaping your career to maximize personal satisfaction in the practice of oncology. *J Clin Oncol*. 2006;24 (24):4020-4026.
- **32.** Dahlin ME, Runeson B. Burnout and psychiatric morbidity among medical students entering clinical training: a three year prospective questionnaire and interview-based study. *BMC Med Educ.* 2007;7:6.
- 33. Figley CR, ed. *Treating Compassion Fatigue*. New York, NY: Brunner-Routledge; 2002.
- **34.** Garfield C, Spring C, Ober D. Sometimes My Heart Goes Numb: Caring in a Time of AIDS. San Francisco, CA: Jossey-Bass; 1995.
- **35.** Wright B. Compassion fatigue: how to avoid it. *Palliat Med.* 2004;18(1): 4-5
- **36.** Figley CR. Compassion fatigue as secondary traumatic stress disorder: an overview. In: Figley CR, ed. Compassion Fatigue: Coping with Secondary Traumatic Stress Disorder in Those who Treat the Traumatized. Levittown, PA: Brunner-Mazel; 1995.
- **37.** Asai M, Morita T, Akechi T, et al. Burnout and psychiatric morbidity among physicians engaged in end-of-life care for cancer patients: a cross-sectional nationwide survey in Japan. *Psychooncology*. 2007;16(5):421-428.
- **38.** Grunfeld E, Whelan TJ, Zitzelsberger L, Willan AR, Montesanto B, Evans WK. Cancer care workers in Ontario: prevalence of burnout, job stress and job satisfaction. *CMAJ*. 2000;163(2):166-169.
- **39.** Vachon MLS, Müeller M. Burnout and symptoms of stress. In: Breitbart W, Chochinov HM, eds. *Handbook of Psychiatry in Palliative Medicine*. New York, NY: Oxford University Press; 2009.
- **40.** Whippen DA, Canellos GP. Burnout syndrome in the practice of oncology: results of a random survey of 1,000 oncologists. *J Clin Oncol*. 1991;9(10): 1916-1920.
- **41.** Allegra CJ, Hall R, Yothers G. Prevalence of burnout in the US oncology community. *J Oncol Pract.* 2005;1(4):140-147.
- **42**. Bressi C, Manenti S, Porcellana M, et al. Haemato-oncology and burnout: an Italian study. *Br J Cancer*. 2008;98(6):1046-1052.
- **43.** Muscatello MRA, Bruno A, Carroccio C, et al. Association between burnout and anger in oncology versus ophthalmology health care professionals. *Psychol Rep.* 2006;99(2):641-650.
- 44. Travado L, Grassi L, Gil F, Ventura C, Martins C; Southern European Psycho-Oncology Study Group. Physician-patient communication among Southern European cancer physicians: the influence of psychosocial orientation and burnout. *Psychooncology*. 2005;14(8):661-670.
- **45.** Elit L, Trim K, Mand-Bains IH, Sussman J, Grunfeld E; Society of Gynecologic Oncology Canada. Job satisfaction, stress, burnout among Canadian gynecologic oncologists. *Gynecol Oncol*. 2004;94(1):134-139.
- **46.** Maslach C, Jackson SE. *The Maslach Burnout Inventory*. 3rd ed. Palo Alto, CA: Consulting Psychologists Press; 1996.
- **47.** Pierce B, Dougherty E, Panzarella T, Le LW, Rodin G, Zimmerman C. Staff stress, work satisfaction, and death attitudes on an oncology palliative care unit and on a medical and radiation oncology inpatient unit. *J Palliat Care*. 2007; 23(1):32-39.
- **48.** Boston PH, Mount BM. The caregiver's perspective on existential and spiritual distress in palliative care. *J Pain Symptom Manage*. 2006;32(1): 13-26.
- **49.** Kearney M. A Place of Healing: Working With Nature and Soul at the End of Life. New Orleans, LA: Spring Journal Books; 2009.

- **50.** Jackson VA, Mack J, Matsuyama R, et al. A qualitative study of oncologists' approaches to end-of-life care. *J Palliat Med*. 2008:11(6):893-906.
- 51. Kobasa SC, Maddi SR, Kahn S. Hardiness and health: a prospective study. J Pers Soc Psychol. 1982;42(1):168-177.
- **52.** Kobasa SC. Stressful life events, personality and health: an inquiry into hardiness. *J Pers Soc Psychol*. 1979;37(1):1-11.
- **53.** Haward R, Amir Z, Borrill C, et al. Breast cancer teams: the impact of constitution, new cancer workload, and methods of operation on their effectiveness. *Br J Cancer*. 2003;89(1):15-22.
- **54.** Huggard PK. Managing Compassion Fatigue: Implications for Medical Education [dissertation]. Aukland, New Zealand: University of Aukland; 2008.
- **55.** Charon R. *Narrative Medicine: Honoring the Stories of Illness.* New York, NY: Oxford; 2008:156.
- **56.** Stanton AL, Danoff-Burg S, Sworowski LA, et al. Randomized, controlled trial of written emotional expression and benefit finding in breast cancer patients. *J Clin Oncol*. 2002;20(20):4160-4168.
- **57.** Mackereth PA, White K, Cawthorn A, Lynch B. Improving stressful working lives: complementary therapies, counseling and clinical supervision for staff. *Eur J Oncol Nurs*. 2005;9(2):147-154.
- **58.** Graham J, Ramirez A. Improving the working lives of cancer clinicians. *Eur J Cancer Care (Engl)*. 2002;11(3):188-192.
- **59.** Balch CM, Copeland EM. Stress and burnout among surgical oncologists: a call for personal wellness and a supportive workplace environment. *Ann Surg Oncol.* 2007;14(11):3029-3032.
- **60.** Fallowfield L, Jenkins V, Farewell V, Saul J, Duffy A, Eves R. Efficacy of a cancer research UK communication skills training model for oncologists: a randomized controlled trial. *Lancet*. 2002;359(9307):650-656.
- **61.** Fallowfield L, Jenkins V, Farewell V, Solis-Trapals J. Enduring impact of communication skills training: results of a 12-month follow-up. *Br J Cancer*. 2003; 89(8):1145-1149.
- 62. Shanafelt TD, West C, Zhao X, et al. Relationship between increased personal well-being and enhanced empathy among internal medicine residents. *J Gen Intern Med*. 2005;20(7):559-564
- **63.** Robinson K, Sutton S, von Gunten CF, et al. Assessment of the Education for Physicians on End-of-life Care (EPEC) project. *J Palliat Med*. 2004;7(5):637-645
- **64.** Le Blanc PM, Hox JJ, Schaufeli WB, Taris TW, Peeters MC. Take care! the evaluation of a team-based burnout intervention program for oncology care providers. *J Appl Psychol*. 2007;92(1):213-227.
- **65.** European Commission. *Promoting the Development and Integration of Palliative Care Mobile Teams in the Hospital*. Brussels, Belgium: Directorate-General for Research Food Quality and Safety; 2004.
- **66.** Quill TE, Williamson PR. Healthy approaches to physician stress. *Arch Intern Med.* 1990;150(9):1857-1861.
- **67.** Cohen-Katz J, Wiley S, Capuano T, Baker D, Shapiro S. The effects of mindfulness-based stress reduction on nurse stress and burnout. *Holist Nurs Pract.* 2004; 18(6):302-308.
- **68.** Fillion L, Duval S, Dumont S, et al. Impact of a meaning-centered intervention on job satisfaction and on quality of life among palliative care nurses [published online January 22, 2009]. *Psychooncology*. doi:10.1002/pon.1513.
- **69.** Stamm BH. Measuring compassion satisfaction as well as fatigue: developmental history of the compassion satisfaction and fatigue test. In: Figley CF, ed. *Treating Compassion Fatigue*. New York, NY: Brunner-Routledge; 2002: 107-119.
- **70.** Calhoun LG, Tedeschi RG. Posttraumatic growth: future directions. In: Tedeschi RG, Park CL, Calhoun LG, eds. *Posttraumatic Growth: Positive Changes in the Aftermath of Crisis.* Mahwah, NJ: Lawrence Erlbaum Associates Publisher; 1998: 215-238.
- 71. Calhoun LG, Tedeschi RG. Facilitating Posttraumatic Growth: A Clinician's Guide. Mahwah, NJ: Lawrence Erlbaum Associates Publishers; 1999.
- **72.** Tedeschi RG, Calhoun LG. *Trauma and Transformation: Growing in the Aftermath of Suffering.* Thousand Oaks, CA: Sage; 1995:43-57.
- 73. Arnold D, Calhoun LG, Tedeschi R, Cann A. Vicarious posttraumatic growth in psychotherapy. *J Humanist Psychol*. 2005;45(2):239-263. doi:10.1177/0022167805274729.
- **74.** Mount BM, Boston PH, Cohen SR. Healing connections: on moving from suffering to a sense of well-being. *J Pain Symptom Manage*. 2007;33(4):372-388.
- **75.** Perry B. Why exemplary oncology nurses seem to avoid compassion fatigue. *Can Oncol Nurs J.* 2008;18(2):87-99.
- **76.** Hojat M, Gonnella JS, Nasca TJ, Mangione S, Vergare M, Magee M. Physician empathy: definition, components, measurement, and relationship to gender and specialty. *Am J Psychiatry*. 2002;159(9):1563-1569.
- 77. Pearlman LA, Saakvitne KW. Trauma and the Therapist: Countertransference and Vicarious Traumatization in Psychotherapy With Incest Survivors. New York, NY: Norton; 1995:31.
- 78. Pearlman LA. Self-care for trauma therapists: ameliorating vicarious

traumatization. In: Stamm BH, ed. Secondary Traumatic Stress: Self-care Issues for Clinicians, Researchers, and Educators. Baltimore, MD: The Sidran Press; 1999: 51-64.

- **79.** Salston M, Figley CR. Secondary traumatic stress effects of working with survivors of criminal victimization. *J Trauma Stress*. 2003;16(2):167-174
- **80.** Coster JS, Schwebel M. Well-functioning in professional psychologists. *Prof Psychol Res Pr.* 1997;28(1):5-13.
- **81.** Novack DH, Epstein RM, Paulsen RH. Toward creating physician-healers: fostering medical student's self-awareness, personal growth, and well-being. *Acad Med.* 1999;74(5):516-520.
- **82.** Novack DH, Suchman AL, Clark W, Epstein RM, Najberg E, Kaplan C. Calibrating the physician: personal awareness and effective patient care. *JAMA*. 1997; 278(6):502-509.
- **83.** Meier DE, Back AL, Morrison RS. The inner life of physicians and care of the seriously ill. *JAMA*. 2001;286(23):3007-3014.
- **84.** Lazar SW, Kerr CE, Wasserman RH, et al. Meditation experience is associated with increased cortical thickness. *Neuroreport*. 2005;16(17):1893-1897.
- **85.** Davidson RJ, Kabat-Zinn J, Schumacher J, et al. Alterations in brain and immune functioning produced by mindfulness meditation. *Psychosom Med.* 2003; 65(4):564-570.
- **86.** Siegal DJ. *The Mindful Brain: Reflection and Attunement in the Cultivation of Well-Being.* New York, NY: Norton; 2007.
- **87.** Rabinowitz S, Kushnir T, Ribak J. Preventing burnout: increasing professional self efficacy in primary care nurses in a Balint Group. *AAOHN J.* 1996;44(1): 28-32
- **88.** Kjeldmand D, Holmstrom I, Roenqvist U. Balint training makes GP's thrive better in their job. *Patient Educ Couns*. 2004;55(2):230-235.
- 89. Epstein RM. Mindful practice. JAMA. 1999;289(9):833-839
- **90.** Kabat-Zinn J. Mindfulness-based interventions in context: past, present, and future. *Clin Psychol Sci Proc.* 2003;10(2):144-155.
- **91.** Grossman P, Niemann L, Schmidt S, Walach H. Mindfulness-based stress reduction and health benefits: a meta-analysis. *J Psychosom Res.* 2004;57(1): 35-43.
- **92.** Frisina PG, Borod JC, Lepore SJ. A meta-analysis of the effects of written emotional disclosure on the health outcomes of clinical populations. *J Nerv Ment Dis.* 2004;192(9):629-634.
- 93. Harris AHS. Does expressive writing reduce health care utilization? a metaanalysis of randomized trials. *J Consult Clin Psychol*. 2006;74(2):243-252.
- **94.** Kornfield J. The Wise Heart: A Guide to the Universal Teachings of Buddhist Psychology. New York, NY: Bantam; 2008.
- 95. Shapiro SL, Brown KW, Biegel GM. Teaching self-care to caregivers: effects of mindfulness-based stress reduction on the mental health of therapists in training. *Train Educ Prof Psychol.* 2007:1(2):105-115.
- 96. Shapiro S, Astin J, Bishop S, Cordova M. Mindfulness-based stress reduction

- for health care professionals: results from a randomized trial. *Int J Stress Manag.* 2005:12(2):164-176.
- **97.** Bedde AE, Murphy SO. Does mindfulness decrease stress and foster empathy among nursing students? *J Nurs Educ*. 2004;43(7):305-312.
- **98.** Wallace BA, Shapiro S. Mental balance and wellbeing: building bridges between Buddhism and Western psychology. *Am Psychol.* 2006;61(7):690-701.
- **99.** Shapiro SL, Schwartz GE, Bonner G. Effects of mindfulness-based stress reduction on medical and premedical students. *J Behav Med.* 1998;21(6):581-599.
- **100.** Shapiro S, Izett CD. Meditation: a universal tool for cultivating empathy. In: Hick S, Bien T, eds. *Mindfulness and the Therapeutic Relationship*. New York, NY: Guilford Press: 2008.
- **101.** Neff KD, Kirkpatrick KL, Rude SS. Self-compassion and adaptive psychological functioning. *J Res Pers*. 2006;41:139-154.
- **102.** Smyth JM, Stone AA, Hurewitz A, Kaell A. Effects of writing about stressful experiences on symptom reduction in patients with asthma or rheumatoid arthritis. *JAMA*. 1999;281(14):1304-1309.
- **103.** Petrie KJ, Fontanilla I, Thomas MG, Booth RJ, Pennebaker JW. Effect of written emotional expression on immune function in patients with human immunodeficiency virus infection: a randomized trial. *Psychosom Med.* 2004;66(2): 272-275.
- **104.** Cepeda MS, Chapman R, Miranda N, et al. Emotional disclosure through patient narrative may improve pain and well-being: results of a randomized controlled trial in patients with cancer pain. *J Pain Symptom Manage*. 2008;35 (6):623-631.
- **105.** O'Cleirigh C, Ironson G, Fletcher MA, et al. Written emotional disclosure and processing of trauma are associated with protected health status and immunity in people living with HIV/AIDS. *Br J Health Psychol*. 2008;13(Pt 1):81-84
- **106.** Morgan NP, Graves KD, Poggi EA, Cheson BD. Implementing an expressive writing study in a cancer clinic. *Oncologist*. 2008;13(2):196-204.
- **107.** Charon R. Narrative medicine: a model for empathy, reflection, profession, and trust. *JAMA*. 2001;286(15):1897-1902.
- **108.** Brady DW, Corbie-Smith G, Branch WT. "What's important to you?": the use of narratives to promote self-reflection and to understand the experiences of medical residents. *Ann Intern Med.* 2002;137(3):220-223.
- **109.** Pennebaker JW. Opening Up: The Healing Power of Expressive Emotions. New York, NY: Guilford Press; 1997.
- **110.** DeSalvo L. Writing as a Way of Healing: How Telling Our Stories Transforms Our Lives. San Francisco, CA: HarperSanFrancisco; 1999.
- **111.** Spann C. Poet Healer: Contemporary Poems for Health and Healing. Sacramento, CA: LAMP; 2004.
- 112. Shapiro SL. The art and science of meditation. Paper presented at: Cassidy Seminars; June 27, 2008; Skirball Cultural Center, Los Angeles, CA.

A Way Through: Bringing "Perspectives on Care at the Close of Life" to a Close

Hope does not lie in a way out, but in a way through.

— Robert Frost

With this article on how clinicians can take care of themselves so that they are able to continue to provide good care to their patients facing the end of life, we conclude the "Perspectives" series. Over the past 9 years, JAMA has published 42 "Perspectives" articles and 23 codas. As we close this section, we thank the Robert Wood Johnson Foundation, the California HealthCare Foundation, and the Archstone Foundation for their support to University of California, San Francisco, for the project and we thank the authors who gave so generously of their time and expertise. Most of all, we express our great appreciation, gratitude, and respect for the patients, family members, and clinicians who shared their stories to provide vibrancy, poignancy, and reality to this series. For many patients, these articles are a part of their legacy; we have worked hard to honor their words and promote healing, comfort, dignity, and the relief of suffering for patients everywhere. For all of this, we are grateful.

In the face of life-threatening illness, there may not be a way out, but with good care based on the best available evidence and experience, there can be a way through for patients, for their loved ones, and for their clinicians.

Web Resources for Physicians on Self-awareness and Self-care

SELF-AWARENESS AND SELF-CARE

Professional Quality of Life Scale

http://www.proqol.org/ProQol_Test .html

This is a short (30-item) self-test that physicians and other practitioners can use to gauge their level of compassion satisfaction, burnout, and compassion fatigue.

Institute for the Study of Health and Illness at Commonweal

http://www.commonweal.org/ishi

Education and training center that offers CME-accredited retreat workshops for physicians aimed at enhancing wellness and a sense of meaning in medicine.

Center for Practitioner Renewal

http://www.practitionerrenewal.ca

Center for research on mental health and well-being in the health care workplace that offers consultation, counseling, supervision, and education programs for physicians.

MINDFULNESS MEDITATION **Spirit Rock Meditation Center**

http://spiritrock.org

Offers ongoing classes, daylong programs, and residential retreats in insight or mindfulness medita-

University of Massachusetts Medical School Center for Mindfulness in Medicine, **Health Care, and Society**

http://www.umassmed.edu/cfm/mbsr Offers mindfulness meditation-based stress-reduction programs and education and research programs on mindfulness meditation.

REFLECTIVE WRITING Writing and Health

http://homepage.psy.utexas.edu /HomePage/Faculty/Pennebaker /home2000/WritingandHealth.html

Practical guidelines on reflective writing, with some useful references.

Additional suggested resources are available from the authors.