To Division Chiefs –
I hope you will read and consider for yourselves, as well as circulate to your faculty. Best wishes
Bruder

APM Association of Professors of Medicine

The Well-Being of Physicians

That physician will hardly be thought very careful of the health of his patients if he neglects his own.
Galen 130–200 A.D. (1)

Physician heal thyself. Proverb

Introduction

Although there has been tremendous progress in our understanding of disease and in interventions to restore health, many physicians have lost sight of their personal well-being. Physicians now confront the stresses of increasing government regulations, malpractice suits, the business aspects of medicine, increased clinical demands, less time with patients, a rapidly expanding knowledge base, rising student debt, and how to balance their personal and professional lives. Although many physicians acknowledge the existence of these stresses, it is difficult to fully understand their effect on health. After all, "Illness doesn't belong to us. It belongs to them, the patients. Doctors need to be taught to be ill. We need permission to be ill and to acknowledge that we are not superhuman" (2).

Much has been written about the well-being and quality of life of patients in recent years (3), but although great strides have been made in the assessment of patient quality of life (4–7), little attention has focused on the well-being of clinicians and how it might affect patients (8–10). It is important to understand the prevalence, causes, and consequences of physician distress; the factors that contribute to physician well-being; and the steps that academic medical centers, health maintenance organizations, and physician organizations can take to promote physician well-being and those that individual physicians may take to promote their own wellness.

Physician Distress

The medical literature began to testify to the problem of physician distress 20 years ago (11–13). These studies reported "burnout" in a wide range of practicing physicians with 30% to 60% of specialists and general practitioners (11–23) experiencing burnout when measured with validated instruments (24,25). Although the problem is common among academic faculty, among whom 37% to 47% experience burnout, it is, alarmingly, even more prevalent in private practice, where 55% to 67% of providers experience the syndrome (21,26). Burnout was once thought to be a late-career phenomenon, but studies now suggest that younger physicians have nearly twice the incidence compared with older colleagues (11) and that onset may be as early as residency training (8,9,12, 14,22,27).

Burnout is a syndrome of emotional exhaustion, depersonalization, and a sense of low personal accomplishment that leads to decreased effectiveness at work (24). First described in the 1970s, it differs from the global impairment of depression in that it primarily affects an individual's relationship to their work. Burnout occurs most frequently in those whose work requires an intense involvement with people, including physicians, nurses, social workers, and teachers (24). Burnout has many consequences, including absenteeism (28), turnover in personnel (13,29), cynicism (8,30), and decreased job satisfaction (13). The effects at work can spill over into personal life when people return home tense, unhappy, or upset. This can lead to friction in personal relationships and isolation from a significant other or family members (16,31).

Physician distress also includes depression, anxiety, substance abuse, divorce, broken relationships, and disillusionment (32–43). Perhaps the most compelling report on distress came from the more than 3500 physicians who responded to a Canadian national survey (42). This study revealed that the majority of physicians thought that their workload was too heavy (62%), that their family and personal life suffered because they had chosen medicine as a profession (55%), and that opportunities to change career were limited (65%) despite dissatisfaction. One U.S. clinician expressed her distress, "When I was pregnant shortly after joining the faculty, I remember looking forward to labor. All I could think was, 'When I go into the hospital, I'll finally get some time to read a good book.'"

Distress and burnout may have more serious implications for physicians than for other professionals. A recent study of internal medicine residents at the University of Washington found a relation between burnout and physicians reporting suboptimal patient care (8). Measured depersonalization was associated with the frequency with which physicians reported suboptimal patient care practices. Burnout was also associated with decreased career satisfaction and a positive screen for symptoms of depres-

0002-9343/03/$–see front matter
doi:10.1016/S0002-9343(03)00117-7

sion. Associations between physician satisfaction and prescribing habits (44), test ordering (45), patient compliance (44,46), and patients' satisfaction with their medical care (47–49) underscore the potential clinical importance of physician distress and require academic medical centers, health maintenance organizations, and physician organizations to take notice.

Causes of Burnout

Although the factors that contribute to burnout are unclear, there is evidence that an important role is played by such factors as workload (8,50–52), specialty choice (11,50,53), practice setting (11,21), patient characteristics (50,54), sleep deprivation (33), personality type (22,55), methods of dealing with death/suffering (22,56), methods of dealing with medical mistakes (57,58), malpractice suits (58–60), lack of control over practice environment (16,51), and problems with work-life balance (31,16).

How these factors create tension between personal and professional responsibilities, termed work-home interference, appears to be at the heart of burnout (16,20, 31,54,61). Work characteristics include schedule, workload, overtime expectations, and relationships with coworkers. Home characteristics include parenting responsibilities, the career and work schedule of a significant other, and the strength of social support (31). Physicians who work late to perform a consult, which prevents them from picking their children up from day care on time, is an example of conflict between work and home responsibilities that may create work-home interference.

A Dutch study of 293 medical residents found that measured work-home interference explained a greater degree of burnout than did the work or home characteristics directly (31,54). The study also found that work characteristics contributed more to work-home interference than did home characteristics. Other studies of physicians support the concept of work-home interference and its association with burnout (54) and lack of well-being (52,61). The different work and home characteristics interact in unique ways for each physician, which may explain differences in burnout among those in similar circumstances.

Modeled work-home interference and burnout in medicine may be self-perpetuated as burned out, career-driven staff physicians serve as role models for medical students and young physicians (8,20,62,63). With altruistic intent, physicians may place professional responsibilities above personal responsibilities. Although this approach is often admired by young physicians and colleagues, it may be self-defeating in the long-run (43). One marital expert noted that resident "role models range from academic superstars with impressive research credentials and international acclaim to committed clinician-teachers who are at the hospital seven days a week . . . their heroes lead lives that are desperately out of balance" (32). Eighteen percent of residents at the University of Washington reported that tension in personal relationships was a major source of stress (personal communication, Tait Shanafelt, February 16, 2003) and 50% reported adopting a survival attitude (8) that put personal life on hold to cope with the training experience. The belief that "things will get better" when the training period is over is a dangerous paradigm (43). As others have cautioned, "Physicians who sacrifice their personal lives during training believe they will reap the rewards of a balanced life after graduation. Unfortunately, without skills to clarify and prioritize values or to develop a personal philosophy that integrates professional, personal, and spiritual domains, such balance does not easily occur" (64).

The Well-Being of Physicians

In his famous address to the Harvard Medical School, Francis Peabody said, "The secret of caring for the medical patient is in caring for the medical patient" (65). Others (66) concur that Candib's rephrasing, "The secret of the care of the patient is caring for oneself while caring for the patient" (67), may provide even greater insight.

But how do we care for ourselves? What is physician well-being and, more importantly, how do we get there? Although there is a large body of literature about physician distress, little is known about physician wellness (34,64,68,69). The preponderance of studies addressing psychosocial health in physicians focuses on negative aspects, such as depression, burnout, substance abuse, and divorce (32–41). In a recent review of the psychology literature, Meyers noted that, in the last 115 years, there have been 57,000 articles published on anxiety and 70,000 on depression but only 5700 articles on life satisfaction, 2958 articles on happiness, and 851 articles on joy (69).

In medicine, health is defined as the absence of disease (70). Physicians may transpose this disease model to their personal well-being and define wellness as the absence of burnout or distress (68,71). This is certainly settling for less than what can be achieved. Wellness goes beyond merely the absence of distress and includes being challenged, thriving, and achieving success in various aspects of personal and professional life. Comprehensive models characterizing wellness and quality of life have been proposed (72).

What can we learn from empiric observations of individuals with a sense of well-being? The January 2000 issue of *American Psychologist* was dedicated to articles reviewing the field of positive psychology (73). One of these articles reviewed the literature to identify characteristics

associated with happiness (69), and the authors conclude that an extroverted personality, strong social support, marriage, and being religious are the traits of happy people. Age, physical attractiveness, and income beyond what is required to meet basic needs do not have a significant effect on happiness. Preferring "high income, and occupational success and prestige rather than close friends and a good marriage" is strongly associated with being unhappy (69,74).

Studies of physicians' relationships support that marriage (37,51,40,61) and religion/spirituality (22,68) have positive effects on well-being. Other studies suggest that having children may insulate against depersonalization and burnout (8,12). Although suggesting that physicians get married and have children is not a practical solution to combat distress, encouraging them to nuture and protect their personal relationships is essential. The problems unique to physician relationships have been reviewed (32,75).

Other theories have been proposed as models of satisfaction. The psychologic theory of "flow" proposes that individuals selectively cultivate a limited set of activities, values, and personal interests (76). When these interests provide opportunity for high involvement, deep concentration, intrinsic motivation, and a perception of facing high challenges while having adequate skills to meet these challenges, an individual achieves flow—the optimal selection of activities to promote well-being. If individuals have excess skill and little challenge, they experience boredom, whereas challenges that are in excess of skill can produce anxiety. Activities that promote creativity and involvement, such as research, the arts, self-expression, and sports, provide opportunities to experience flow (76).

Practical Suggestions for Physicians

It is important for physicians to note that recovery from distress and burnout is possible (12,38). The editors of the *Western Journal of Medicine* dedicated their January 2001 issue to physician well-being (77). One article by Weiner et al. explored physicians' own wellness promotion practices by asking "How do you solve dilemmas related to your physical, emotional, and spiritual well-being?" (68). Study participants also completed a survey to measure well-being. The authors identified relationships, religion/spirituality, self-care practices, work attitudes, and life philosophies as the five general strategies used by physicians to promote personal well-being and found a relation between report of these strategies and measured well-being. Quill and Williamson performed a similar survey a decade earlier that asked physicians how they dealt with the stress of their practice (64). Although classified under slightly different categories, the themes that emerged from respondents were remarkably similar to those identified by Weiner et al.: self-care (including religious/spiritual practice and self-awareness), relationships (including sharing feelings), limits on work, and developing a life philosophy. When asked to rate the importance of personal strategies used to reduce stress, residents at the University of Washington also reported a similar set of wellness strategies (8). Here, relationships (discussions with significant others, family members, and colleagues) and self-care strategies (hobbies, exercise) were rated as important to essential by more than 90% of these physicians in training. Religious or spiritual practice was rated as important to essential by 34%. These results suggest that relationships (personal and professional), attention to the needs of self (exercise, personal interests), religion/spirituality, and limits on work are key themes for promoting physician well-being (8,64,68) (Table 1).

How well are we integrating these wellness strategies into our lives? On a societal level, it is discouraging (78,79). The University of California, Los Angeles, survey of 250,000 people annually asks incoming college freshman to rate the importance of various factors in their decision to attend college. Myers notes that in 1970 more than 80% of freshman reported that "developing a meaningful philosophy of life" was a very important to essential factor in their decision, whereas only about 40% of freshman gave a similar endorsement in 1998 (69). In contrast, attending school to "become very well off financially" rose from very important or essential for 39% of freshman in 1970 to 74% in 1998. Studies suggest that this may be a recipe for unhappiness (69).

These observations should encourage physicians to reflect on their own values. Linda Hawes Clever, president of RENEW, an organization that works to promote physician wellness, suggests that refining our values can improve well-being (80). She proposes a series of questions to identify values and suggests that making decisions in accord with values will promote wellness. "Values are the source of meaning in life. They underlie our motivation and goals; they fuel our energy. . . . With values identified we can start making good choices" (80). Others have noted the importance of prioritizing values but warn that this may demand a modification of career goals. "Those who felt their life had balance placed considerable value on their personal needs in making choices, often going against dominant professional expectations of their colleagues and institutions" (64).

Other physicians have found that approaches that foster awareness and reflection help identify values and promote well-being. Storytelling groups, Ballint groups, and Doctoring to Heal programs are examples of this approach (34,64,81). These programs involve groups of physicians who meet regularly to reflect on and share the emotional and existential aspects of their profession. This

Table 1. An Interpretation of the Key Concepts of Wellness Strategies Used by Physicians

I. Relationships:
Grasp the importance of "protecting" time to spend with family and significant other. Develop a sense of connection with colleagues. Pursue opportunities to reflect on and share with colleagues about the emotional and existential aspects of being a physician.
II. Religious Beliefs/Spiritual Practice:
Personal attentiveness to and nurturing of the spiritual aspects of self.
III. Work Attitudes:
A. Finding meaning in work (Flow)
B. Actively choosing and limiting type of medical practice. Examples: working part time, being involved in medical education, pursuing research interests, managing schedule, discontinuing unfulfilling aspects of practice.
IV. Self-Care Practices:
Actively cultivating personal interests and self-awareness in addition to professional and family responsibilities. Seeking professional help for personal physical or psychologic illness as needed. Examples: reading, exercise, self-expression activities, fostering personal awareness, adequate sleep, nutrition, regular medical care, professional counseling.
V. Life Philosophy:
Develop a philosophic approach to life that incorporates a positive outlook, identifying and acting on values, and stressing balance between personal and professional life.

time of reflection can strengthen personal and professional identity and foster a sense of connection with colleagues, helping physicians realize that they are not alone (34,64,81).

Implications for Academic Medicine, Health Maintenance Organizations, and Physician Organizations

The implications of the research cited here should be a strong call to action for academic medicine, health maintenance organizations, practice administrators, and physician organizations. Distress has been identified as an issue in nearly every group of physicians that has been studied, from interns in training (8,9) to department chairs (20). Distress and well-being are intimately associated with factors essential to building an economically healthy (82,83) and thriving health care organization, including limiting physician turnover (49,50), promoting patient compliance (44,46), increasing patient satisfaction (47,48), and ultimately providing good medical care (8–10,44,45).

Although individuals are responsible for their own wellness, institutional changes can play an important role in promoting physician well-being (Table 2). The Joint Commission on Accreditation of Healthcare Organizations now mandates that hospitals have processes to promote physician wellness (84). But what form should such programs take, and what steps can institutions take to promote wellness? For those in practice, the job characteristics and institutional factors that contribute to well-being include promoting autonomy (27,50–52,85–92), providing adequate office resources and support staff (50,54), and facilitating a collegial work environment (85,87). Studies overwhelmingly identify autonomy as the central organizational characteristic that promotes wellness in physicians. Providing physicians with increased ability to influence their work environment, to participate in organizational decisions that affect medical practice, and to have more control over their schedules

Table 2. An Interpretation of How Organizations Can Promote Physician Well-Being

I. Promote Physician Autonomy: Increase physicians' ability to influence their work environment and participate in decisions that effect practice. Provide flexibility and increased physician control over schedule.
II. Provide Adequate Support Services: Supply adequate physician coverage to allow time off. Provide adequate and coordinated nursing, secretarial, administrative, social work, and laboratory support in a effort to promote efficient patient care.
III. Cultivate a Collegial Work Environment: Create a work environment that fosters healthy relationships among employees. Examples: retreats, team building exercises, working toward common goals, holiday parties, etc.
IV. Be Value Oriented: Promote the core values of the medical profession. Incorporate these values into the institutional mission. Involve physicians in helping organizations promote and achieve this mission.
V. Minimize Work-Home Interference: Facilitate flexible and readily accessible child care. Allow flexibility in scheduling and provide ready coverage for important life events (births, funerals, illness, family emergencies).
VI. Promote Work-Life Balance: Provide adequate vacation time and limits on overtime expectations. Develop organization sponsored seminars and retreats on job-life balance. Develop mentoring program and periodic sabbaticals.

are likely to have a substantial positive effect regardless of practice type (27,50–52,85–91).

Organizations that promote the core values of the medical profession and that have a well-identified mission also appear to have greater well-being among members (89,90,93,94). These statements of purpose can stress that, philosophically, the physician and the organization are working toward a common goal.

Efforts to minimize work-home interference by providing readily available childcare, flexible scheduling, and ready coverage for important life events, such as illness, births, graduations, funerals, and family emergencies, are likely to have a positive effect on well-being (31,54,95). Organization-sponsored workshops or seminars that improve self-awareness and promote work-life balance are also likely to be beneficial (64,68,80,95).

Academic medical centers have an additional obligation to promote the well-being of physicians in training, and unique interventions may be needed. Medical educators underestimate distress in residents (62,96), and curricula are needed that promote self-awareness and healthy approaches to balancing personal and professional life. In the University of Washington study, program interventions that limited workload (caps on admissions, 4 days off per month, and having ancillary help) were important to essential for dealing with the stress of residency for more than 90% of residents (8). The Accreditation Council on Graduate Medical Education recently approved new requirements that limit resident work hours, which may make these interventions more universal (97,98). Previous recommendations from education researchers (14,34,54,99) and residency program directors (100) are a foundation on which to build.

A Call for Research

Prospective, longitudinal studies that further explore the causes and ramifications of physician distress and new instruments to specifically measure physician well-being are needed. Prospective studies to identify individual and organizational interventions that can promote wellness and evaluate its effect on productivity, patient care, and patient satisfaction will be important. The well-being of female physicians may be dependent on variables distinct from their male counterparts and should be evaluated separately (51,52,61,88). Exploration of factors that promote well-being for physicians in training are needed (101–103). Longitudinal studies with long-term follow-up evaluating the effectiveness of medical school and residency curricula to help students develop a personal strategy to promote wellness and create work-life balance will be critical.

Conclusion

Being a physician carries with it the potential for both great joy and great distress. Sir William Osler distilled this dual potential: "The practice of medicine will be very much as you make it—to one a worry, a care, a perpetual annoyance; to another, a daily job and a life of as much happiness and usefulness as can well fall to the lot of man." Physicians must identify, nurture, and defend their personal interests and values if they desire personal and professional satisfaction in life.

Tait D. Shanafelt, MD
Jeff A. Sloan, PhD
Thomas M. Habermann, MD

Tait D. Shanafelt, Jeff A. Sloan, and Thomas M. Habermann are from the Mayo Clinic, Rochester, Minnesota.

REFERENCES

1. Beatty WK. *Galen. Of Protecting the Health, book V.* In: Sleep Thieves: An Eye-Opening Exploration into the Science and Mysteries of Sleep. New York: The Free Press; 1996:205.
2. McKevitt C, Morgan M. Illness doesn't belong to us. *J R Soc Med.* 1997;90:491–495.
3. Leplege A, Hunt S. The problem of quality of life in medicine. *Jama.* 1997;278:47–50.
4. Levorato A, Stiefel F, Mazzocato C, Bruera E. Communication with terminal cancer patients in palliative care: are there differences between nurses and physicians? *Support Care Cancer.* 2001; 9:420–427.
5. Loblaw DA, Bezjak A, Bunston T. Development and testing of a visit-specific patient satisfaction questionnaire: the Princess Margaret Hospital Satisfaction With Doctor Questionnaire. *J Clin Oncol.* 1999;17:1931–1938.
6. Moinpour CM, Lyons B, Schmidt SP, Chansky K, Patchell RA. Substituting proxy ratings for patient ratings in cancer clinical trials: an analysis based on a Southwest Oncology Group trial in patients with brain metastases. *Qual Life Res.* 2000;9:219–231.
7. Rothman ML, Hedrick SC, Bulcroft KA, Hickam DH, Rubenstein LZ. The validity of proxy-generated scores as measures of patient health status. *Med Care.* 1991;20:115–124.
8. Shanafelt TD, Bradley KA, Wipf JE, Back AL. Burnout and self-reported patient care in an internal medicine residency program. *Ann Intern Med.* 2002;136:358–367.
9. Bellini LM, Baime M, Shea JA. Variation of mood and empathy during internship. *Jama.* 2002;287:3143–3146.
10. Firth-Cozens J, Greenhalgh J. Doctors' perceptions of the links between stress and lowered clinical care. *Soc Sci Med.* 1997;44: 1017–1022.
11. Ramirez AJ, Graham J, Richards MA, Cull A, Gregory WM, Leaning MS, Snashall DC, Timothy AR. Burnout and psychiatric disorder among cancer clinicians. *Br J Cancer.* 1995;71:1263–1269.
12. Lemkau J, Rafferty J, Gordon R Jr. Burnout and career-choice regret among family practice physicians in early practice. *Fam Pract Res J.* 1994;14:213–222.
13. Goldberg R, Boss RW, Chan L, et al. Burnout and its correlates in emergency physicians: four years' experience with a wellness booth. *Acad Emerg Med.* 1996;3:1156–1164.
14. McCue JD, Sachs CL. A stress management workshop improves residents' coping skills. *Arch Intern Med.* 1991;151:2273–2277.