Toward a Restorative Medicine—The Science of Care

SUMMARY OF THE ORIGINAL ARTICLE

The Care of the Patient

Francis Peabody, MD

JAMA. 1927;88(12):877-882

"The most common criticism made at present by older practitioners is that young graduates have been taught a great deal about the mechanism of disease, but very little about the practice of medicine—or to put it more bluntly, they are too "scientific" and do not know how to take care of patients . . . The good physician knows his patients through and through, and his knowledge is bought dearly. Time, sympathy, and understanding must be lavishly dispensed, but the reward is to be found in that personal bond which forms the greatest satisfaction of the practice of medicine. One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient."

See www.jama.com for full text of the original *JAMA* article.

Commentary by James C. Harris, MD

Francis Peabody (1881-1927), chief of the Harvard unit medical service at Boston City Hospital and the hospital's Thorndike Memorial Laboratory, wrote "The Care of the Patient"[1] when he was 45 years old. The article began as a lecture for medical students and was first presented on October 15, 1925. It was revised and expanded in the autumn of the following year, and presented again on October 21, 1926, several months after he was diagnosed with an inoperable metastatic leiomyosarcoma of the stomach.[2] By the time this article was published in *JAMA*[1] in March 1927, Peabody's health had worsened and he had only 7 months to live. His equanimity throughout his illness was an inspiration to faculty members and friends; he supported them in their distress over his illness as they provided supportive care for him. Peabody continued to submit clinical research articles until the time of his death. His last article, "The Soul of the Clinic,"[3] was completed 1 day before his death and published posthumously in *JAMA*.

Peabody was a complete physician who taught in an era in which concerns were raised that medicine had become too scientific and hospital care was too impersonal. Many believed that the key to personal medical care was the home visit. These visits allowed physicians to learn about the life circumstances of their patients including financial anxiety and domestic incompatibility; and about their own personal qualities such as self-centeredness, altruism, and gentleness. Peabody wrote that "'the clinical picture' is not just a photograph of a man sick in bed; it is an impressionistic painting of the patient surrounded by his home, his work, his relations, his friends, his joys, sorrows, hopes, and fears."[1(p221)]

Peabody's "The Care of the Patient"

This *JAMA* Classic article[1] is organized around these key issues.

Instruction in Treatment of Disease

Peabody insisted that medicine is not a trade to be learned but a profession to enter. The essence of its practice is intensely personal; he wrote: "The treatment of a disease may be entirely impersonal; the care of a patient must be completely personal."[1(p221)] He noted that hospitals, founded with the highest ideals, under the demands of care for the most sick, leave little time to cultivate more than superficial contact with patients. In hospital, the patient loses his personal identity becoming "a case of mitral stenosis," but instead he is a sick man concerned not only about his failing heart but his threatened future.[1]

Patients Who Have "Nothing the Matter With Them"

When patients do not demonstrate objective organic pathology or evidence of structural change, they may be passed over lightly. Peabody gives the example of Mrs Brown, admitted once again for vague gastrointestinal symptoms. She is advised that fortunately she does not have an identifiable disease, that really nothing is the matter. While her symp-

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toms temporarily improved with rest in the hospital, they returned after discharge and he wrote that she "tries chiropractic, or perhaps it is Christian Science."[1] Peabody estimated that a substantial percentage of patients seen in private practice at that time were in this category.[1]

Physiologic Disturbances From Emotional Reactions

Although it was common knowledge, Peabody wrote that emotional reactions affect organic functioning, which produces tachycardia, nausea, vomiting, and respiratory disturbances and that these symptoms usually resolve with the cessation of the stressor. Yet for some patients, the symptoms do not abate. He concluded that for Mrs Brown, who continued to have symptoms, scientific medicine was not scientific enough and that cheerful reassurance and a placebo tonic were insufficient.

Importance of a Personal Relationship

Peabody concluded this *JAMA* Classics article[1] by pointing out that a physician who neglects the emotional life of a patient is as "unscientific as the investigator who neglects to control all the conditions that may affect his experiment." Ultimately Peabody reminded all physicians that "the secret of the care of the patient is in caring for the patient."[1]

The Need for a New Medical Model

In 1977, a half century after the publication of "The Care of the Patient,"[1] Engel called for a new medical model that essentially incorporated Peabody's approach.[4] Engel harkened back to Meyer's[5] psychobiology to provide the framework for patient care. He proposed that a biopsychosocial approach, similar to Meyer's psychobiology with a central focus on the person, should replace the disease-focused biomedical model. Engel also was influenced by Dr Soma Weiss, who had trained with Peabody and was the chief of service at Peter Bent Brigham Hospital. Weiss taught Engel the importance of placing the patient's narrative of his life and illness at the center of the clinical evaluation.

Peabody referred to Mrs Brown's gastrointestinal complaints; Engel went one step further when he and his colleagues followed the case of Monica, an infant born with esophageal atresia who was fed through a surgically induced gastric fistula for the first 2 years of life. When she was rehospitalized at age 15 months for failure to thrive, Engel found that her gastric acidity was regulated by her emotional state. Striking differences in her gastric physiology depended on whether she was approached by a stranger (conservation withdrawal) or a trusted caregiver. Next, Engel's research group investigated the effects of despair, ie, the experience of hopelessness or "giving up" on the onset and exacerbation of disease. In reformulating giving up as "conservation withdrawal," Engel began to appreciate the effects of loss and bereavement on immune functioning. These physiological and immunological studies convinced him that the clinical interview must focus on the experiencing person (the patient's attitudes, fears, and hopes) and not on disease alone. Thus, the goal of the clinical interview is not only to diagnose disease but also to understand the meaning of the illness for the patient and to establish realistic hope about prognosis and treatment.

Engel proposed the "hopelessness gesture" as a sure clinical sign. He described how hopelessness is recognized in the midst of an interview or examination when the patient sighs and reaches out toward the examiner.[6] When this subtle reaching out is ignored, there is a flattening of facial expression and the patient's arms fall in resignation. It is a sign that the patient has given up. This gesture is a red flag to stop, listen, and console. For Engel, such observations contributed to the understanding of the science of care. In Engel's model, biological vulnerabilities (molecular genetic endowment, epigenetic factors, and toxic ones) are individual features that may be modified by personal experiences to enhance resilience. Among the most important psychosocial protective factors are confiding relationships with the physician, family, and friends. Confiding relationships have been reported to influence outcomes following myocardial infarction and depressive illnesses.[7]

The Anatomy and Physiology of Social Engagement

Social engagement with the physician should engender trust and alleviate unrealistic anxiety. Porges[8] has extended Engel's findings and identified 3 well-defined, hierarchically organized, neural circuits linked to the evolution of the autonomic nervous system that evolved to gauge environment risk and regulate human adaptive behavior in response to safe, dangerous, or life-threatening situations.[8] Two neuropeptides, oxytocin and arginine vasopressin, are intimately linked to these neural circuits.[9] In this neurophysiological model, when the social environment is deemed safe and trustworthy, the patient establishes eye contact with the examiner, listens intently to what is said, and breathes freely; the heart rate is rhythmically synchronized with breathing—increasing during inspiration and decreasing during expiration. This synchronization results from the activation of the myelinated vagus nerve that innervates the lungs and heart and is linked to neural regulation of the facial muscles of emotional expression and the middle ear muscles that extract human voice. When threatened, social engagement is abandoned and the patient becomes hypervigilant, respiration and heart rate increase, and the sympathetic nervous system is engaged (fight or flight). When despairing (Engel's conservation withdrawal), the patient becomes listless then dissociated, physiologic and immune systems begin to disengage, and gastrointestinal symptoms and bradycardia ensue with the activation of the phylogenetically primitive unmyelinated vagus nerve fibers that innervate these structures. If the physician attends to the signs of hopelessness, fear, and emotional disengagement, this primitive giving up response can be averted.

Neuroimaging studies provide additional evidence for a social engagement system. One study investigated the neu-

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ral basis of perception of faces as trustworthy or untrustworthy.[10] The right superior temporal sulcus showed enhanced signal change during explicit trustworthiness judgments. Increased activity in bilateral amygdala and right insula occurred in response to faces judged as untrustworthy. The experience of social trust also may be linked to the placebo response. Beliefs and expectations may modulate neurophysiologic and neurochemical activity in brain regions involved in perception, movement, pain, and various aspects of emotion processing.[11,12] Placebo responses have been linked to reward systems in the brain, immune functioning, and possibly the neuroregulatory release of oxytocin.

Patient-Centered Treatment

The patient-centered approach to patient care emphasized by Peabody,[1] Engel,[4,6] and others is deemed crucial for high-quality medical care. A recent review of the conceptual and empirical literature on personalized medicine proposes methods for measuring the process and outcomes of patient-centered care.[13] How the interview is conducted matters in patient-centered medicine. An open-ended or semistructured narrative interview allows the patient to become personally engaged with the interviewer, facilitates rapport, elicits individual attitudes and feelings, and clarifies the meaning of the illness to the patient. A more structured interview emphasizes rational thought and is focused on gathering factual information; an effective clinical encounter should elicit attitudes, feelings, and facts.

How medical information is collected is taking on renewed significance with greater emphasis being placed on the electronic medical record (EMR). Differences are being documented in the content and organization of information between paper and computer-based records.[14] Paper records tend to have a narrative structure, while computer-based records are organized into discrete items of information. Concerns are being raised about how this technology affects the relationship with the patient when the physician continuously turns away to enter data into a computer. Issues also are being raised about how the design of electronic record systems shape physicians' cognition, with its focus on gathering factual information. Thus, data collection and entry into the EMR affect physicians' information-gathering style and reasoning strategies.[15] Consequently, the nature of the patient-physician dialogue is influenced by the structure of the EMR system.

Peabody's concerns about professionalism are echoed today in the practice settings with time constraints that threaten patient-centered care and emphasize impersonal disease-based data collection in the EMR. Yet the evidence base increasingly substantiates the critical importance of personalized patient contacts and the science of care. Peabody emphasized that the essential quality of a clinician is an interest in humanity.[1] Such interest is no less apparent in physicians today than it was in Peabody's time. That human interest must continue to sustain physicians and stimulate them to advocate for new approaches to meet the challenges of personalized patient care in the 21st century.

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