Integrative East-West Primary Care Medicine in the Contemporary U.S.

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Abstract

The healthcare system in the U.S. is currently under a great deal of pressure due to rising healthcare costs, the increased prevalence of chronic conditions, and a shortage of primary care physicians. For many primary care physicians, their ability to help suffering patients is hindered by lack of time and inadequate reimbursement for services. A growing number of researchers, clinicians, and scholars are therefore turning towards integrative medicine, defined as "a new paradigm of healthcare that is prospective and holistic, while patient-centered and personalized at the same time, focusing on health and well-being in addition to disease management".[1] Especially in the care of patients suffering from chronic conditions, integrative medicine draws upon the best of biomedicine while also incorporating evidence-based approaches from traditional and/or alternative healing systems. At the UCLA Center for East-West Medicine (CEWM), we have developed a unique approach to primary care integrative medicine that harnesses biomedicine's strengths in diagnosis and acute condition management, while also relying upon Chinese medicine's support for the body's innate healing mechanisms. Our model incorporates a flexible and comprehensive approach for personalized care along with a

commitment to finding the root causes behind the manifestation of symptoms and diseases. By emphasizing the importance of appropriate physical activity, stress management and healthy diet, we further enlist patients' active engagement in prevention and the cultivation of health. In this paper, we describe the CEWM clinical model, including our integrative approach to intake, management, and follow-up. We further offer several broad suggestions for the ways in which Chinese medicine can be productively combined with biomedicine in conventional settings in the development of patient-centered, safe, effective, and affordable care.

I. Background: Primary Care and the Looming Crisis

Primary care is the foundation of any well-designed health system. According to the American Medical Association, primary care is "the provision of a broad range of personal medical care (preventive, diagnostic, palliative, therapeutic, curative, counseling and rehabilitative) in a manner that is accessible, comprehensive and coordinated by a licensed MD/DO physician over time".[2] The four main features of primary care services are first-contact access for each new need; long-term person-focused care; comprehensive care for most health needs; and coordinated care when it must be sought elsewhere.[3] There is a growing body of evidence that suggests that a strong, high-quality primary care system is directly associated with better health outcomes and lower total costs of health services possibly due to better preventive care and lower hospitalization rates. However, despite the greater recognition of the importance of primary care to health systems globally[4], primary care is still relatively weak in the United States.[5] Within ten years, American healthcare costs are projected to reach $4.2 trillion annually, roughly 20% of our gross domestic product. The CDC estimates that 75% of all healthcare costs are directly linked to preventable chronic health conditions that then lead to lost productivity and disability.[6]

The current healthcare system does not match societal need as it focuses on acute care and spends the majority of its resources on crisis and rescue care. There needs to be a greater focus and allocation of resources towards prevention and health promotion.

Efforts to reform the health care system in the United States have focused mostly on extending insurance coverage and decreasing costs through improved efficiency. With the forecast that by 2020 there will be a shortage of about 100,000 to 200,000 physicians[7], the question remains whether the United States will have enough physicians to care for the estimated additional 30 million formerly uninsured individuals. However, according to the American College of Physicians, we face an impending collapse of primary care due to a dysfunctional healthcare payment and delivery system that undermines and undervalues the relationship between patients and their personal physicians.[8] The crisis in primary care is a result of the rising demand for primary care services and, at the same time, a decreasing number of professionals providing these services. Currently, the United States has a surplus of specialists and not enough generalists who will have the requisite skill set to deliver the care that is needed. This rising demand is driven by a dramatic shift in the demographic makeup of the United States, with a growing number of adults aged 65 and older, many with multiple chronic conditions. Today's physician payment system places more value on volume of services rather than on preventive and coordinated care that is likely to lead to better outcomes. The patient-provider relationship is also eroding due to the decreasing time available to address the complex needs of each individual.[9] The increased amount of interactions per day requires more administrative work, resulting in the average primary care physician spending only 55% of their time on face-to-face patient care. [8] Poor reimbursement rates for care coordination provided by primary care physicians and the

income gap compared to specialty physicians also negatively affect the supply of primary care providers. Practicing primary care physicians are increasingly dissatisfied with their work environment, which in turn has had a strong influence on medical students and residents. A survey of 1,177 4th year medical students in 11 United States medical schools found that only 2% of medical students planned a career in primary care internal medicine.[10] Physicians are experiencing increasing difficulty in finding balance in their own professional and personal lives. Currently, almost 1 in 2 physicians in the United States has symptoms of burnout, which "implies that the origins of this problem are rooted in the environment and care delivery system".[11] Rather than adding more physicians, there is growing support in favor of reforming payment systems to promote integrated and coordinated medical care.

II. Innovative Healthcare Setting Model: Patient-Centered Medical Home

Most relevant stakeholders—those who provide the care, those who pay for the care, and those receiving the care—recognize the need for change when delivering primary care services. The United States government is exploring ways to correct misaligned financial incentives with reimbursement reform to reorient towards more patient-centered, longitudinal coordinated care as opposed to episodic, illness-oriented complaint-based care. One care model that has been proposed as a way to transform primary care is the patient-centered medical home (PCMH), which is characterized by a physician-led care delivery team that collectively takes responsibility for the ongoing, comprehensive care of patients. This systems-based model coordinates care across the whole spectrum of the patient's needs, with other qualified professionals participating on an as-needed basis. The PCMH approach has demonstrated cost-savings with improved

quality of care by decreasing hospitalizations, emergency room visits, and medication errors, although more recent work has suggested otherwise and recommending further study.[12-13]

However, cases seen in primary care are becoming increasingly more complex. Family physicians, for example, address an average of 3 patient problems for every visit, with the average number of problems increasing to 3.8 for elderly patients and 4.6 for patients with diabetes.[14] The patient-centered medicine in Western medicine focuses mainly on "a conversation about changes in the delivery of medical care rather than about the way biomedicine thinks about illness…This means that attempts to improve the patient experience continue to work within a system organized according to the treatment of discrete disease conditions…which limits the extent to which the patient as a whole person can be put at the center of care".[15] Therefore, in additional to healthcare redesign, primary care also needs to move towards a holistic model that will help solve many of the multifactorial conditions. This may be achieved with a new integrative approach that utilizes the best of different healing traditions with an emphasis on wellness, holistic diagnosis and treatment, and self-care.

III. Emergence of Complementary and Alternative Medicine and Integrative Medicine

In Western countries, the renaissance of complementary and alternative medicine (CAM) and integrative medicine reflects, in part, the public's dissatisfaction with the current biomedical approach to healthcare and increased interest in wellness and more personal control over one's own health. CAM consists of diagnosis, treatment and prevention methods that complement mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual framework of medicine.[16] This definition is limiting

in terms of its conceptualization of CAM as what biomedicine is not, when in fact many CAM methodologies are complete systems with intrinsic knowledge and value. The National Center for Complementary and Alternative Medicine (NCCAM) classifies CAM into 5 categories: alternative medical systems, mind-body interventions, biological based therapies, manipulative and body-based methods, and energy therapies. Based on the definition provided by the Consortium of Academic Health Centers for Integrative Medicine (CAHCIM), integrative medicine is the practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals, and disciplines to achieve optimal health and healing. Although practices of integrative medicine vary, its theoretical construct remains the same. It emphasizes an individualized and holistic approach to medicine, addressing the physical, mental, emotional, social, and spirituals factors that influence health and disease to treat the whole person.

In response to this trend, healthcare professionals, government agencies, insurance companies, and researchers are exploring the potential of CAM and integrative medicine and the eventual integration of its most beneficial aspects into the healthcare system.[1] Much research has been done evaluating the mechanisms, efficacy, and effectiveness of CAM. Examples include acupuncture's effect on the limbic system and its effectiveness in addressing the inflammatory cascade induced by stress[17-18] as well as mindfulness among health care clinicians being associated with more patient-centered communication.[19] With the need to restructure our healthcare system to match societal need through improvement of primary care, PCMH and integrative medicine seem well-suited to help achieve this reorientation by blending the two

together.[20] Around 45% of integrative medicine centers in the United States and Canada, such as the Duke Integrative Medicine in North Carolina, the Continuum Center for Health and Healing in New York, and Arizona Center for Integrative Medicine in Arizona, offer primary care for patients across their lifespan with most centers providing comprehensive care as well.[21] The Center for East-West Medicine (CEWM) at UCLA offers its own unique take on integrative medicine as described below.

IV. Building Integrative East-West Primary Care at the UCLA Center for East-West Medicine

CEWM is an organized unit within the Department of Medicine at UCLA. Since its establishment in 1993, the CEWM has developed a patient-centered clinical model utilizing an integrative approach to clinical problem solving comprising judicious incorporation of principles and therapeutic modalities of traditional Chinese medicine (TCM), a biopsychosocial perspective, enhanced appreciation of the role of the soft tissues in health and disease to help better prevent, manage, and occasionally reverse many chronic health problems.[22] TCM emphasizes the centrality of dynamic homeostatic balance, innate self-healing mechanisms, and the inseparable nature of body, mind, and spirit. TCM also emphasizes process and function over structure, as well as health promotion and disease prevention. Characteristics, such as its adeptness in dealing with chronic and degenerative diseases, underscore the role TCM can play in contributing to the emergent health paradigm.

CEWM clinicians who are dual-trained in biomedicine and TCM see thousands of patients with a multitude of refractory problems, referred by over 500 physicians both within and beyond the

UCLA Health System. The TCM theoretical construct of conceptualizing the whole person is fundamental in formulating a personalized treatment plan in order to address early imbalances within the body. If left untreated, over time this physiological dysregulation resulting in subclinical changes in various secondary outcomes (neurobiological, metabolic, cardiovascular, immune) can lead to the functional syndromes, neurodegenerative disorders, chronic pain, malignancy and autoimmune diseases [23-24] that are commonly seen in our clinics.

The CEWM uses the following procedure when caring for its patients. First, an assessment of prior conventional diagnosis and treatment is established. Second, a sketch of a complete history is made. Third, the patient undergoes a conventional physical exam that is supplemented with TCM diagnostic approaches, which includes palpation of acupoints and tongue diagnosis. The next step is determining a treatment plan and incorporating patient education. The clinical team emphasizes the importance of balance in all aspects of life and aims for its restoration through lifestyle counseling (physical activity, sleep, stress management) and personalized nutritional advice.[25] Treatment modalities administered in the clinic include acupuncture, acupressure and massage therapy, trigger point injections, and medication adjustments. We are creating a new full-service integrative health center that expands upon the existing consultative treatment center. Our intent is to respond to patient demand and leverage the strengths of the existing clinic to demonstrate the added value of such an integrative East-West-flavored medical home by incorporating primary care provided by physicians trained in integrative East-West medicine.

V. Patient Case Presentation

Jane sought help at the CEWM clinic after having suffered for 9 months from her gastroesophageal reflux symptoms. Upon review of her history, the physician discovered a tangled network of problems far beyond gastroesophageal reflux. This middle-aged patient was divorced, appeared overweight and pre-hypertensive. Jane was a registered nurse who worked night shifts in various high stress intensive care units for 10 years. She experienced heartburn and bloating sensations that often disrupted her sleep. Other troublesome symptoms included headaches, constipation and rhinosinusitis.

In addition to nonsteroidal anti-inflammatory drugs, Jane's medication list also included triptans, intranasal corticosteroids, acid-suppressing drugs, and oral antihistamines. She was also taking vitamin D, calcium, multivitamins, gingko, and green tea extract. Her diet consisted of mainly cold salads and Asian dishes, such as fried rice and stirred fried noodles with chicken and vegetables. She also snacked on power bars, chips, string cheese, yogurt, and baked goods. She drank coffee and other caffeinated beverages in excess. For exercise, Jane engaged in cardiovascular training and weight lifting for half hour once or twice a week. Her medical history was notable for chronic low back pain, allergic rhinosinusitis, osteoarthritis of the knee, degenerative disc disease of the cervical spine, migraine headaches, dysthymia, Hashimoto's thyroiditis, and overactive bladder. She had undergone tonsillectomy, septoplasty, and reconstruction of the anterior cruciate ligament in the left knee.

From the integrative East-West medical perspective, Jane's health problems were understood as complex, related conditions closely linked to her body's inability to handle multiple stressors. The CEWM clinic team and Jane partnered to identify many of the underlying stressors involved

in genesis and perpetuation of her symptoms. They jointly developed a comprehensive management plan that included acupuncture, trigger point injections, dietary modification, and cultivation of stress management strategies with foundation in lifestyle modification. Her medications were reviewed in detail with plans to gradually reduce her dependence on them. Jane returned for weekly visits during which she was also instructed on how to perform self-massage on essential acupressure points and use a tennis ball to massage her back.

After 5 weekly treatments, the patient reported significant improvement in her dyspepsia and reflux. Jane came to recognize that to prevent recurrence of her symptoms, she needed to adhere to appropriate diet and performance of self-care. After 10 weekly treatments, the patient reported rare use of acid-suppressing drugs and analgesics for her dyspepsia and reflux. Other symptoms, including headaches, constipation, nasal congestion, and insomnia, had improved considerably. Jane no longer suffered from sleep deprivation due to gastroesophageal reflux and night sweats and noted significant improvement in her mood. She felt more relaxed and energized. By focusing on nonpharmacological approaches, the potential physiological burden of polypharmacy was reduced.[26]

VI. Conclusion: Global Impact on Healthcare

Modern medicine is facing a global crisis of sustainability, costs, and caring. According to the PwC Health Cast 2020 published in 2005, "the heath systems of nations around the world may be unsustainable if unchanged over the next 15 years". [27] The future design of a better health system should place an emphasis on (1) prevention and wellness, (2) revitalizing primary care, and (3) training of clinicians imbued with the integrative East-West framework to enhance their

ability to solve most problems encountered in both the inpatient and outpatient settings.[28] By rebalancing the focus of the health care system from high-tech, invasive, crisis intervention to patient-oriented care, prevention, early disease recognition and health promotion, this integrative health paradigm will bring the world closer to achieving the six aims of an ideal health care system as outlined by the United States' Institute of Medicine: safe, effective, patient-centered, timely, efficient, and equitable.[29]

CEWM has always been active in education and dissemination and continues to grow its training and clinical program for physicians in integrative East-West medicine. Other CEWM educational programs include clinical immersion training, guest lectures, workshops, and conferences that demonstrate the unique person-centered clinical model and encourage a transformation in ways of thinking about medicine and self-care. Course offerings include classes for students from diverse backgrounds and degrees with positive results.[30] For the community, the ExploreIM Web Portal (www.exploreim.ucla.edu) is an information resource and interactive forum that advances the understanding of traditional Chinese medicine and integrative East-West medicine and educates readers as to how these therapeutic approaches contribute to healing and wellness. Through this online presence, CEWM aims to showcase the unique theoretical framework and therapeutic modalities of the CEWM clinical approach, the wisdom and knowledge of world-renowned experts in integrative medicine, the latest scientific findings, as well as the events and programs available at UCLA[31] and other institutions to an audience across the globe. To move integrative medicine forward, more evaluation is needed and should include mixed-methods studies incorporating health services research, whole systems research, qualitative research, and comparative-effectiveness research.[32-34]

It is also important to note that China and the United States share similar goals with regard to health care reform: expanding coverage, bending the cost curve, and enhancing overall effectiveness of delivered healthcare. Though substantial differences in the two health care systems exist, there is much that both nations can learn from one another as they move ahead with this important endeavor. Over the past 5 decades, China has embarked on a major effort to accumulate vast experience in TCM and integrative medicine. As part of its effort to improve primary and continuity care, the Shanghai Health Bureau is currently funding a program to teach Chinese medicine to 12,000 community-based clinicians and public health workers trained in Western medicine in Shanghai. CEWM will be involved in this educational endeavor.

The looming healthcare crisis offers an opportunity for integrative medicine to contribute enormously to the development of a better global health system. With good medicine, vigorous science, rational policy, effective communication, collaborating with and learning from each other, we all can become a vital force in transforming the current health care system that will match societal need.

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