

Social Science Interventions in Medicine Produce Medical Science Outcomes

By Tom Janisse, MD, Editor-in-Chief

Giving a patient a templated instruction printout isn't the best medical treatment after starting a medication. Far better is personal education, reinforced at home. This requires applying social science in medicine. Although many disciplines constitute social science, four are close associates of health care: psychology, education, anthropology, and sociology. Five of this issue's Original Articles describe social science interventions that produce medical science outcomes.

Cognitive Psychology

In *How Doctors Think*,¹ by Harvard physician Jerome Groopman, MD, he specifically draws his insights from cognitive psychology—the nature of thought and the behavior that results. Physicians' pattern recognition is influenced by: *availability*—the reach for the most plausible explanation; *commission bias*—the need to do something rather than nothing; *confirmation bias*—selective use of information supporting what one expects to find; *attribution*—stereotypes that bias decision making; and *diagnosis momentum*—a diagnosis accepted as definitive despite contrary or incomplete data. Physicians' attention to these psychologic processes will improve their medical science diagnostics, decision making, and ultimately, outcomes.

Education Sociology

The authors of *Whole Person Health for the Whole Population: One-Year Evaluation of Health Coaching* (page 41), implemented a process for a health coach to educate diabetic patients, in conjunction with their medical care. Through a series of phone conversations and self-assessment tools coaches probed patients' understanding, preferences, readiness for change, and decision making. A change in patients' behavior resulted in significant

improvement in physiologic parameters, such as glycemic control. It's not enough to expect a good outcome from just prescribing a drug and giving an instruction sheet; sometimes patients need to be coached.

The same principle applied, as described in *A Multidisciplinary Approach to Transition Care: A Patient Safety Innovation Study* (page 4), when nurses and pharmacists phoned patients at home to ensure that the same medications at the same dose were taken at home as in the hospital or skilled nursing facility. The conversations included a home safety check.

Education Psychology

In the article, *Fetal Heart Rate Pattern Notification Guidelines and Suggested Management Algorithm for Intrapartum Electronic Fetal Heart Rate Monitoring* (page 22), the proof of effectiveness of a practice guideline is not just knowledge of it or specialty-society endorsement, but day-to-day use through a management algorithm.

Eric Holmboe, MD, Vice-President, and Christine Cassel, MD, President, of the American Board of Internal Medicine, explain in their commentary, *Continuing Medical Education and Maintenance of Certification: Essential Links* (page 71), that physicians' active self-assessment and the evaluation of their daily clinical behaviors are required learning to improve their practice.

Linguistic Anthropology

Unfolding a patient's medical history—long recognized as the genesis of the medical diagnosis 90% of the time—requires not only the careful delineation of symptoms but also hearing the patient's story of illness. Linguistic anthropology—the social science of human communication, verbal and nonverbal—seeks

to understand the language and process used by people talking to each other. In her study, *A Decade of Experience with a Multiday Residential Communication Skills Intensive: Has the Outcome Been Worth the Investment?* (page 30), physician Terry Stein, MD, demonstrates the value of a "Four Habits" tool in an interactive group setting to improve physician-patient communication skills—which can enhance the physician's ability to discover the diagnosis in the history 90% of the time. Improved communication builds relationship and trust—on which adherence to medical treatment is based. Medical science outcomes flow from human communication and relations. And physicians' satisfaction with their clinical practice improves. When physician learners grow knowledge, understanding, and new habits, physicians and patients benefit.

Social Psychology

In his study, *Introducing Narrative Practices in a Locked, Inpatient Psychiatric Unit* (page 12), Native American physician Lewis Mehl-Madrona, MD, prompts each patient in a group setting to construct a coherent story of what led to their admission, and then an alternative story to prevent readmission. Not only did patients report improved function and satisfaction with their inpatient treatment experience, but stories of positive outcomes emerged.

Conclusion

Social science interventions are necessary for medical science outcomes. Embracing their value in medical practice may enhance the effect. ♦

Reference

1. Groopman J. *How doctors think*. New York: Houghton Mifflin; 2007.