

In This Issue: How We Think and Feel Influences Patient Care

Deborah J. Cohen, PhD, Associate Editor

Ann Fam Med 2013;11:2-4. doi:10.1370/afm.1447.

The articles in this issue bring new insights into clinical practice, health care policy, and the role of often hidden cognitive and social processes in shaping care.

Several reports offer important evidence (in the traditional sense of that word) that informs clinical practice. We learn that opportunistic and clinical screening for type 2 diabetes have similarly low macrovascular event rates within the first 10 years after diagnosis¹ and that brief clinician training on how to communicate key information to patients about medications improves patient ratings of that communication.² These articles offer excellent examples of clinically relevant research. One report highlights the softer but potentially high-impact side of medicine—the way people can help each other achieve wellness.²

Policy-relevant articles in this issue address the rapid rise and variability of electronic health record adoption among family physicians³; the social, psychological, medical, financial, and legal disruptions from high out-of-pocket health expenses among midlife and older adults⁴; variability in informed decision making around prostate cancer screening attributable to physicians' beliefs about screening and concerns about medicolegal risk⁵; factors associated with physician assistants entering primary care⁶; and the complementary role of practice facilitators and care managers in furthering primary care redesign.⁷

In addition to these reports, I want to call your attention to 4 articles that highlight the tension between intuition and evidence, as well as the important but often hidden role that perception and other cognitive, social, and cultural processes play in clinical care.⁸⁻¹¹ These 4 articles identify important distinctions between implicit and explicit bias as it relates to topics as diverse as the difference between patients' expectations and epidemiological data on the duration of cough in acute illness⁸; the high specificity but low sensitivity of primary care clinicians' suspicion of patients' alcohol problems⁹; the role of "gut feelings,"

"recognitions," and "insights" in using intuition to complement rational thought in making clinical judgments¹⁰; and how clinicians' implicit bias is related to black and Latino patients' perceptions of their care in established clinical relationships.¹¹ Looking critically across these articles can help us to understand both the benefits and the drawbacks that normal cognitive processes play in clinical decision making.

The article by Ebell et al⁸ shows that patients' perceptions of how long their cough should last after an illness involving acute cough is shorter than what clinical research shows is the average duration of cough. Patients expect 5 to 7 days of cough vs the 17.8-day average duration suggested by the literature—quite a difference, with big implications for appropriate use of care, not to mention after-hours telephone calls. Previous research has found that patients communicate their expectations in ways that subtly influence physicians to prescribe an antibiotic.¹² Clinicians can use the discrepancy between patients' expectations and clinical evidence to inform communication with patients. It can help clinicians set reasonable expectations about symptoms and inform treatment decision making, such as the need for antibiotics. Interestingly, patients' perceptions regarding cough duration are explicit. That is, patients are aware of these expectations, making these beliefs amenable to study by self-report methods and presumably accessible to conversation to better match expectation with biomedical reality.

I probably would not have noticed the explicit nature of patient expectations about cough had I not read the article on implicit bias by Blair et al.¹¹ Their study focuses on the role implicit ethnic/racial bias plays in black and Latino patients' perceptions of their care. As Blair et al point out, "Whereas explicit bias is overt and freely expressed, implicit bias may not be consciously acknowledged and operates in more subtle ways."^{11(p44)} Blair et al use a very interesting, though somewhat controversial,¹³ Implicit Association Test to measure clinicians' implicit biases toward

black and Latino patients. One key finding of this study is that clinicians with greater levels of implicit bias are rated lower on key relational attributes (eg, interpersonal treatment, communication, trust) by their black patients, but this relationship did not hold up with Latino patients. Although this study does not establish an association between implicit biases and patient health outcomes, the larger body of literature on this topic does show evidence for this connection (ie, Devine et al¹⁴ and Dovidio et al¹⁵). Encouragingly, some research in social psychology and education finds that implicit bias is a habit that can be broken. Strategies for reducing prejudice related to implicit bias include raising awareness, taking the perspective of members of an out-group, increasing contact between in- and out-group members, obtaining specific information about individuals, and using mindful reflection to unpack assumptions.^{13,14}

The article by Blair shows that some shortcuts which people unconsciously use to make sense of the world and people with whom we interact can be harmful and impair the trust and communication that are key elements of the healing relationship. In contrast, the study by Woolley and Kostopoulou on clinical intuition shows the positive aspects of cognitive processing. They examine patient cases where physicians believed they had experienced an intuition—where physicians were unaware of the basis of their judgment or believed the source of their judgment was irrational or unsubstantiated. Woolley and Kostopoulou discover 3 types of decision processes at work: gut feelings, insights, and recognitions.

I encourage you to read the case examples in the online supplemental appendix to the Woolley and Kostopoulou article, as these cases show how physicians use cues ranging from unusual symptoms (excessive bleeding) to bodily based behaviors (ie, holding one's head in hand to show pain), olfactory cues (ie, the smell of alcohol on a patient), interactional cues (ie, patient protested strongly to excessive alcohol consumption), and inform diagnoses. In addition, these intuition events share another characteristic: there is dissonance between the clinical evidence and some other cue(s) physicians are processing. For example, in the case where the physician suspects the patient has an alcohol consumption problem, the physician recalls possibly smelling alcohol on the patient and remembers the patient protesting strongly to an alcohol problem during screening. The physician does a blood test that confirms a high blood alcohol level.

This article and the one by Blair et al resonate with philosopher Michael Polanyi's 1974 book, *Personal Knowledge*.¹⁶ Tacit knowing, according to Polanyi, is the knowledge people possess that they cannot express.

This way of knowing tends to be so ingrained that we take it for granted. Clinicians often are not aware when this knowledge is brought into play in clinical practice, but as Woolley and Kostopoulou show, it can be helpful, perhaps because it complements more explicit knowledge. Braude¹⁷ shows the relevance of Polanyi's work to clinical intuition and evidence-based medicine. He argues that the evidence-based medicine model is limited because it gives too much weight to clinical evidence and thereby devalues the tacit knowledge that Woolley and Kostopoulou identify as intuition. Braude makes the case that human sensing and the tacit ways of knowing which occur "when a physician who is explicitly listening to a patient's story, is simultaneously aware, but in a qualitatively different way, of the patient's tone of voice, facial expression and choice of words..."^{17(p195)} are critical for clinical reasoning. Evidence-based medicine does not preclude but requires clinical intuition and tacit knowledge for its most effective implementation.

The study by Vinson et al⁹ does not delve directly into the cognitive processes that lead a clinician to be concerned about patients' excessive use of alcohol, but it examines the sensitivity, specificity, and predictive value of clinicians' instincts as compared with screening instruments. This study shows that physicians are quite good at identifying patients who do not have an alcohol problem, and when physicians are concerned that a patient has a hazardous drinking pattern, they usually are right. This may be because, in most such cases, they usually discuss this concern with the patient. On the other hand, physician intuition has poor sensitivity compared with validated screening tools; clinicians miss most (more than 70%) of the patients with a potential alcohol problem. The take-home point from this report: take steps to build alcohol screening into routine primary care practice so that a regular process can complement intuition.

The articles in this issue highlight some of the normal cognitive strategies of which clinicians may not be aware. Together, these articles show both the positive and negative aspects of these cognitive processes and the ways heuristic devices influence clinicians' ways of knowing patients and making medical decisions. Awareness allows clinicians to implement strategies to control negative biases and to make the most of helpful hunches. The research in this issue shows the delicate balance of human sensing, intuition, clinical reasoning, evidence, and policy that propel family medicine.

We welcome your reflections on all articles at <http://www.annfam.org>.

Acknowledgments: Kurt Stange, MD, PhD, and Laura McLellan, MS, and David Buckley, MD, provided helpful comments and contributions to this editorial.

References

1. Klein Woolthuis EP, de Grauw WJC, van Keeken SM, et al. Vascular outcomes in patients with screen-detected or clinically diagnosed type 2 diabetes: Diabscreen study follow-up. *Ann Fam Med*. 2013;11(1):20-27.
2. Tarn DM, Paterniti DA, Orosz DK, Tseng C-H, Wenger NS. Intervention to enhance communication about newly prescribed medications. *Ann Fam Med*. 2013;11(1):28-36.
3. Xierali IM, Hsiao CJ, Puffer JC, et al. The rise of electronic health record adoption among family physicians. *Ann Fam Med*. 2013;11(1):14-19.
4. Grande D, Barg FK, Johnson S, Cannuscio CC. Life disruptions for midlife and older adults with high out-of-pocket health expenditures. *Ann Fam Med*. 2013;11(1):37-42.
5. Volk RJ, Linder SK, Kallen MA, et al. Primary care physicians' use of an informed decision-making process for prostate cancer screening. *Ann Fam Med*. 2013;11(1):67-74.
6. Coplan B, Cawley J, Stoehr J. Physician assistants in primary care: trends and characteristics. *Ann Fam Med*. 2013;11(1):75-79.
7. Taylor EF, Machta RM, Meyers DS, Genevro J, Peikes DN. Enhancing the primary care team to provide redesigned care: the roles of practice facilitators and care managers. *Ann Fam Med*. 2013;11(1):80-83.
8. Ebell MH, Lundgren J, Youngpairaj S. How long does a cough last? Comparing patients' expectations with data from a systematic review of the literature. *Ann Fam Med*. 2013;11(1):5-13.
9. Vinson DC, Turner BJ, Manning BK, Galliher JM. Clinician suspicion of an alcohol problem: an observational study from the AAFP National Research Network. *Ann Fam Med*. 2013;11(1):53-59.
10. Woolley A, Kostopoulou O. Clinical intuition in family medicine: more than first impressions. *Ann Fam Med*. 2013;11(1):60-66.
11. Blair IV, Steiner JF, Fairclough DL, et al. Clinicians' implicit ethnic/racial bias and perceptions of care among black and Latino patients. *Ann Fam Med*. 2013;11(1):43-52.
12. Scott JG, Cohen D, DiCicco-Bloom B, Orzano AJ, Jaén CR, Crabtree BF. Antibiotic use in acute respiratory infections and the ways patients pressure physicians for a prescription. *J Fam Pract*. 2001;50(10):853-858.
13. Paluck EL, Green DP. Prejudice reduction: what works? A review and assessment of research and practice. *Annu Rev Psychol*. 2009;60:339-367.
14. Devine PG, Forscher PS, Austin AJ, Cox WTL. Long-term reduction in implicit race bias: a prejudice habit-breaking intervention. *J Exp Soc Psychol*. 2012;48(6):1267-1278.
15. Dovidio JF, Kawakami K, Gaertner SL. Implicit and explicit prejudice and interracial interaction. *J Pers Soc Psychol*. 2002;82(1):62-68.
16. Polanyi M. *Personal Knowledge: Towards a Post-Critical Philosophy*. Chicago, IL: University of Chicago Press; 1974.
17. Braude HD. Clinical intuition versus statistics: different modes of tacit knowledge in clinical epidemiology and evidence-based medicine. *Theor Med Bioeth*. 2009;30(3):181-198.

CORRECTIONS

Ann Fam Med 2013;11:4. doi:10.1370/afm.1486.

Woolf SH. The price of false beliefs: unrealistic expectations as a contributor to the health care crisis. *Ann Fam Med*. 2012;10(6):491-494.

In the print version of the article, on page 493, the Choosing Wisely Campaign was inadvertently referred to as the Choosing Widely Campaign. It is correct in the online version of the *Annals*. The print version therefore departs from the online version.

Reference 13 in this editorial was incomplete in the print version of the *Annals*. It should read: Hoffman RM, Barry MJ, Roberts RG, Sox HC. Reconciling primary care and specialist perspectives on prostate cancer screening. *Ann Fam Med*. 2012;10(6):568-571. The reference is correct in the online version of the editorial. The print version therefore departs from the online version.

Peterson KA, Delaney BC, Arvanitis TN, et al. A model for the electronic support of practice-based research networks. *Ann Fam Med*. 2012;10(6):560-567.

In the print version of the article, on page 566 in the last line of the article, the link to ePCRN Open Source License was incorrectly shown as <http://www.epcrn.org>. It should be <http://www.epcrn.net>. The correct link appears in the online version of the *Annals*. The print version therefore departs from the online version.

Karaca N, Dereli T. Treatment of ingrown toenail with proximolateral matrix partial excision and matrix phenolization. *Ann Fam Med*. 2012;10(6):556-559.

In Table 1, 81 patients for whom there was no information from between 15 and 24 months of follow-up were inadvertently included in the total number of procedures and in the number of unilateral procedures. The total number of procedures for the 225 patients should be 267, and the number of unilateral procedures should be 183.