

I Believe, Therefore I Do

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“Cogito ergo sum”—“I think, therefore I am” was René Descartes’ most famous dictum. But perhaps a more fruitful line of inquiry would have been—“I believe, therefore I do”; a brief summation of what behavioral science has taught us about behavior change. Our beliefs are powerful predictors of how we act. This important insight has been given additional relevance in the work by Street and Haidet in this issue of *JGIM*, showing how poorly physicians seem to do at predicting the belief structures of their patients, and by implication, how poorly they are able to anticipate their intentions and actions, never mind how best to support them in managing their illness.¹

In the late 1980s Greenfield and colleagues published several seminal studies that demonstrated the powerful potential effects of a patient activation intervention on chronic disease outcomes.^{2–4} In one of these studies, patients with diabetes who were randomized to an activation intervention prior to a consultation were more active in negotiating decisions with their physicians and subsequently had HbA1c values that were 1.5% lower than those in the control group.³ These studies are among the most widely cited ones in the larger literature on patient-centered care. Although subsequent studies have not always demonstrated the same powerful effects,^{5,6} researchers have shown considerable interest in fostering patient activation. Several recent studies have continued to generate evidence in favor of fostering patient activation to improve health outcomes, especially among patients with diabetes.^{7,8} Nevertheless, patient activation interventions have yet to be widely implemented in our health care system. Part of the reason why these interventions have not been widely disseminated may be that the mechanism of the activation intervention is unclear. What might lead an activated patient to have better long-term outcomes? A recent observational study found that patients who were more activated had better subsequent adherence to their treatment regimens, leading to better outcomes.⁷ But why would an activated patient become more adherent?

The paper by Street and Haidet begins to suggest an explanation for why patient activation might be so powerful. In a clever and elegant study, they measured patient’s health beliefs as well as their physician’s personal beliefs and

perceptions of their patient’s health beliefs. These parallel three-way assessments yielded some striking findings. Patients generally were more likely to believe that their disease was their responsibility than their physicians thought and perhaps more importantly, something they could control. Contrary to their physician’s perceptions, patients were less likely to endorse a biological cause for their condition. Moreover, physicians seemed to think that their patients were more likely to believe in a biological cause than the physicians themselves, perhaps suggesting that physicians think that patients don’t believe they can control their illness. Somewhat surprisingly, physicians who had a longer standing relationship with their patient did not show more accurate perceptions of their patients’ beliefs. However, physicians whose patients were more activated—meaning that they asked questions, communicated their concerns and acted assertively in their consultation—had significantly more accurate perceptions of their patients’ health beliefs.¹

The study by Street and Haidet did not address how congruence in patient beliefs and physician perceptions could be related to subsequent adherence and treatment outcomes. But 40 years of theoretical and applied work on health behavior gives some guidance. Several prominent health behavior theories identify beliefs as the key underlying construct that drives people’s behavior.⁹ Fishbein and Ajzen’s Reasoned Action Approach to health behavior provides a detailed explication of the link between beliefs and behavior.¹⁰ This theory has been successfully applied to countless interventions aimed at changing a wide range of health behaviors.⁹ According to the Reasoned Action Approach, a behavior is likely to occur if a person has formed an intention to do so. If one doesn’t already have an intention to perform a given behavior, the intention can be predicted by measuring the person’s attitudes, perceived normative pressure and self-efficacy about engaging in the behavior. Underlying these constructs are the patients’ beliefs about their outcomes expectancies, normative and efficacy beliefs. Although much of this cognitive process is often unconscious, if made conscious, one could articulate the following questions from the patient’s point of view: (1) what are the advantages and disadvantages of taking this new therapy?, (2) do others who are important to me or like me think that I should or should not take this new therapy?, and (3) what might help me or stop me from taking this new therapy?

What follows from this theory is that to change someone’s behavior (e.g., convincing a patient to take a prescription drug that will lead to improved outcomes, if taken as directed) one must either change the patient’s beliefs or understand them sufficiently to ensure that the intervention one is prescribing

fits with the patient's beliefs. Beliefs are ultimately an interpretation of the known world. Exploring the patient's interpretation—understanding the underlying beliefs—can help the physician uncover misconceptions and false interpretations of events that may stand in the way of adhering to a therapy that could be effective, if used correctly. Thus, a physician working in partnership with an activated patient is more likely to recommend a treatment plan that fits with patient's health beliefs, which in turn improves the likelihood that the patient will follow through with the treatment plan, thereby leading to better long term outcomes.

Some have suggested that the lack of readily deployable interventions to activate patients has held back the full implementation of the chronic care model.^{11,12} The ever growing burden of chronic diseases on health care expenditures makes these issues all the more urgent. What then can be done to increase patient activation? Although patient consultations haven't necessarily gotten shorter in recent decades, what has increased is the number of issues a physician has to cover in the same amount of time.^{13–15} This could understandably lead one to wonder how physicians could possibly fit an assessment of a patient's health beliefs to this already overcrowded agenda.

As noted by Street and Haidet a number of interventions have been developed and tested that could be used efficiently before a consultation to activate patients. And a systematic review of activation interventions for patients with diabetes found that interventions targeting patients were generally more effective and efficient than interventions targeting physician behavior.¹⁶

But what is perhaps also needed is a much more fundamental change in physicians' understanding of the role of patients in developing treatment plans. To borrow from a legal analogy, it is probably fair to say that we don't yet have evidence beyond a reasonable doubt that developing a better understanding of patient beliefs will lead to better adherence. But the circumstantial evidence is mounting and one has to ask how long we are going to continue waiting before we change our fundamental views of the roles of physician and patient in negotiating treatment plans.

Despite a few decades of progress and movement toward more patient centered care, the prevailing model is still one in which the physician is viewed as the expert who assists the patient who needs help. We have frequently found ourselves struck when listening to discussions about patient centered medical homes, one of the latest buzzwords in primary care, how much attention is focused on reengineering practices and redistributing tasks. Yet very little attention is paid to orienting in an entirely different way toward patients.

As the study by Street and Haidet demonstrates, physicians are not experts in their patient beliefs. Patients are the experts in their beliefs. Physicians can wait for patients to tell them their beliefs, or they can become more systematic in asking patients what they are. Not only is it the right thing to do, but it will likely lead to that which we all value and pursue with our work—helping patients achieve better health.

Performance measures could be developed to start measuring how well physicians explore their patients' preferences and belief systems, and how well they support their patients in deliberating together about which interventions are best suited

for them. Most performance measurement applied to date in clinical practice has been focused on outcomes based on either management priorities (such as efficiencies regarding waiting times and other such targets) or on clinical measures which relate to biomedical proxies (blood pressure, blood sugar, or similar assessments) whilst the imperative of working to provide patient-centered care, based on dialogue, on the exploration of what is truly important to the patient, is largely rhetorical and goes without any measure whatsoever.^{17–19} If medicine wants to place the patient at the center, then the structural issues that limit the ability to provide information prior to exploring preferences, that do not allow patients to have time to deliberate after they have received information and that put a low price on the willingness and ability of clinicians to support their patients to understand the levels of uncertainty that permeate medical practice, need to be addressed. Systems are perfectly designed to deliver the results which they produce—and if we want different results—we need to address system issues and not just suggest that these issues can be delivered by inserting narrowly focused interventions alone, however well designed they might be.²⁰ Physicians want to perform well, for the well-being of their patients and their own sense of professional accomplishment. We know that involving patients in decisions requires exploring their belief systems as well as providing them with information—and that these in turn lead to many good outcomes in the long run—we have plenty of evidence for this. We therefore need to measure whether clinicians do both these tasks. We should incentivize and reward them for having the courage, confidence and curiosity to explore what their patients believe and truly involve them in decision making. We need to recognize when they get it right and reward that work—for it really is hard work to get it right.

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