One word I never heard when training to be a physician was epistemology, a branch of philosophy concerned with the nature of knowing. Epistemology primarily addresses the following questions: “How is knowledge acquired?” “What do people know?” and “How do we know what we know?” Of course, I studied the practice of medicine, not the history and philosophy of science. Yet epistemology is increasingly on my radar screen, in part due to an article in this issue of Family Medicine that relates physicians’ epistemology to their reactions to uncertainty.

Epistemology and Uncertainty

As family physicians, we routinely confront uncertainty, ambiguity, and complexity. Our literature devotes a great deal of attention to uncertainty, with the goal of helping patients and physicians confront it. Yet, when was the last time you thought about how your emotions influenced decisions made in response to diagnostic or therapeutic uncertainty?

In their cross-sectional survey of primary care physicians, Evans and Trotter report an intriguing relationship between physicians’ epistemology and their reactions to uncertainty. Using the Physicians’ Belief Scale to measure physicians’ epistemology, they found a biopsychosocial epistemology to be associated with less stress in reaction to uncertainty. A biomedical epistemology, on the other hand, was associated with more stress in reaction to uncertainty. This means that in medical encounters, emotional reactions to uncertainty, and by extrapolation our clinical decisions, are influenced by how we respond to mind-body relationships. Thus, we are asked to consider how our epistemological commitment influences our affective and behavioral reactions to uncertainty.

For clinical teachers, what is the relevance of the findings reported by Evans and Trotter? For one, think about how we interpret the propensity of some trainees to systematically “over” or “under” investigate when patients present with nonspecific somatic complaints, such as chronic fatigue. For another, the authors rightly draw attention to the role of stress reactions to uncertainty, which stimulates medical testing and its associated risk. Let me elaborate further by examining how I view my epistemology and how I cope with uncertainty in clinical decision making.

My Epistemology

As family physicians, our work demands an approach that is neither like that of the vascular surgeon (highly biomedical) nor that of the psychotherapist (highly biopsychosocial). As such, my epistemology lies somewhere between these two extremes and may vary according to the context of my patients and their illnesses. Personally, I have an interest in using research-based information to improve my patient care; seeking some measure of comfort in scientific knowledge, I trained in evidence-based medicine, clinical epidemiology, and biostatistics. Working in an academic setting, I am also constantly asked questions by students and challenged to revisit my clinical decisions. Faced with the impossible task of appraising new research-based information on my own, I use shortcuts and read the secondary literature of pre-appraised synopses. In other words, I search for answers to my clinical questions, retrieve the “best” evidence, and apply it in practice. This is a very biomedical epistemology, but it has limits.

As an example, I offer the following simple case. During a routine check-up, a mother showed me her child’s wart. The small stubborn wart was not responding to salicylic acid treatment. At that moment, I recalled reading a synopsis about a randomized trial of duct tape, which showed it was a reasonable alternative to cryotherapy. A few quick taps on my PDA screen allowed me to retrieve a synopsis of the study, which the patient’s mother and I read to know exactly what to do. Of course, just a few months later, I came across another...

See related article on pages 319-26.
An In-between Epistemology

Of course, many patients in primary care require a more biopsychosocial approach. As such, in my clinical practice I often go back and forth between a biomedical and biopsychosocial epistemology.

Similarly, in my research, I am neither purely quantitative nor qualitative. I have adopted a mixed methods approach. The division of methods within health sciences as qualitative or quantitative has its roots in the different “world views” of constructivism and logical empiricism, which are usually presented as competing paradigms. Constructivism is associated with idealism, relativism, and subjectivity, while logical empiricism is associated with materialism, realism, and objectivity. Constructivism is most frequently associated with inductive qualitative studies and logical empiricism with deductive quantitative studies. Mixed methods may be conceived as methods that loop between constructivism and logical empiricism and include the notion that something can be “both socially constructed and yet real”.

Why Bother With Epistemology and Uncertainty in Medical Decision Making?

If I am neither like a highly biomedical vascular surgeon or a highly biopsychosocial psychotherapist, then one limitation of the paper by Evans and Trotter needs to be made explicit. That is, a physician’s epistemology may be flexible, moving back and forth depending on the context of our clinical encounters.

If we are unaware of our epistemology or how it influences clinical practice, then what benefits would such awareness bring? To what extent does experience or matura-

References

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