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Family Medicine

EDITORIAL

Expecting Uncertainty

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"*The unexpected is our normal routine.*"

— Commander William Riker, *USS Enterprise-D*[1]

Confidence in facing the unknown is one of the admirable characteristics of the crew of the fictional starship *Enterprise-D*. Most family physicians, however, are more likely to identify with the ship's doctor from an earlier iteration of the *Enterprise*, Dr Leonard McCoy, "a simple country doctor,"[2] who made it clear many times that "I'm a doctor, not an... engineer, bricklayer, mechanic, or escalator" (depending on the episode). A truly resourceful generalist, he nevertheless routinely faced scenarios well beyond his training and scope of practice.

As a generalist specialty, family medicine has long promoted dealing professionally with uncertainty and caring for patients with undifferentiated conditions. In 2004 the Future of Family Medicine (FFM) project boldly identified "comprehensive" care and "a natural command of complexity" as characteristics of family physicians.[3] A 2019 qualitative study with medical students confirmed the importance of role models who practice a broad scope of family medicine in attracting students to the specialty,[4] and a recent restatement of cross-specialty shared principles reiterated the importance of comprehensiveness in primary care.[5]

Dealing with breadth and complexity by definition entails a commitment to dealing with uncertainty. I recall as a student being taught that the generalist specialties by nature tended to attract those with a higher tolerance for or comfort with uncertainty; unfortunately that assertion does not seem to have been validated in the educational literature, and in 2022 Young et al found no correlation between medical students' comfort with uncertainty and whether they subsequently entered training in primary care or family medicine.[6]

While it is admirable to aim for comprehensive care, and there are means to quantify the complexity of our patient panels, simply stating that family physicians are natural at dealing with complexity or uncertainty does not make it so. In fact, despite the vision presented by the FFM project, subsequent national efforts to refocus and redefine our specialty through the Family Medicine for America's Health (FMAHealth) project[7] and the revisions to Accreditation Council for Graduate Medical Education (ACGME) residency standards[8] gave little attention to what it means to train generalist physicians for dealing with both complexity and uncertainty.

Uncertainty in medicine has traditionally been considered in the context of clinical decisions, where we ponder issues of scientific uncertainty such as the precision of test results or the potential ambiguity of treatment outcomes. Dwan and Willig argue that we need to go further, realizing that issues of existential uncertainty apply not only to our patients but also to us as clinicians and caregivers—What does my life mean? What does it mean to live with "doubt about one's going-on-being"? What does it mean to live with "a present-oriented state that is influenced by perceptions of the past and future"?[9] Indeed, studies have shown that not only did the COVID pandemic disrupt the structures and schedules of medical education,[10] the ongoing uncertainty has taken an emotional[11] and cognitive[12] toll on learners and faculty during the pandemic.

It is important that we educate our learners, and ourselves, to deal confidently with scientific uncertainty and flexibly with uncertainty in scheduling and planning, but there

is a broader need to understand how we best prepare our learners (and ourselves) to deal with the existential uncertainty we face when the very assumptions, foundations, and parameters of our socially-organized reality become uncertain.

Evans and Trotter demonstrated in 2009 that primary care physicians with a biopsychosocial epistemology tend to have less stress when confronting uncertainty than do those with a biomedical epistemology,[13] and Ledford et al found that the seeking of social support may be one means for the reduction in discomfort with uncertainty that can come with increased practice experience.[14] Beyond these findings, however, the question remains as to how we can do better.

Taylor et al demonstrated that a curriculum incorporating specific readings, reflective writing, discussion, and ambulatory skill development using psychosocial and behavioral health tools can improve tolerance of ambiguity among family medicine residents.[15] Schei et al call for dedicated work on reflection in medical education as a way to guide learners in managing complexity and the messiness of medical practice.[16] Tonelli and Upshur suggest that increased focus on the philosophy of medicine in medical education help learners with development of the language and reasoning skills to navigate uncertainty,[17] and Ave and Sulmasy contend that attention to spirituality may help provide "a path to peace in the midst of the storm" and "a sense of faith in a transcendent presence that calls them to serve their patients and sustains them in that work."[18]

Accuracy, precision, and dependability are important professional standards for giving quality care, but recent and current events give ample reminders that we teach and practice in a world where uncertainty ranges from the scientific to the existential. It is important to be sure our clinical education teaches thoughtful ways to deal with measurement imprecision and ambiguity of guidelines. It may be even more important for us to continue to explore the ways reflection, narrative, philosophy, and spirituality may broaden our learners' resources for facing the even deeper questions of existence.

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