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Uncertainty in the COVID-19 Pandemic and the Art of Medicine

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Abbreviations: severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2); coronavirus disease 2019 (COVID-19)

Contributors' Statement Page

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Medicine is often described as a dynamic balance between art and science. Some argue that the increased emphasis on science has moved us away from the art of medicine, as evidence-based medicine and scientific advances push us toward more standardized and cost-effective care.[1] As clinicians, we are taught to integrate data into our patients' care plans. Evidence allows us to speak with certainty as we guide patients through therapeutic options and partner with them to make informed decisions about their medical care. But what happens when evidence and data are scarce, or new discoveries seem contrary to prior understanding? The current pandemic has shaken the ground beneath us, laying bare our disorientation and vulnerability without scientific doctrine to guide us. Perhaps it is time to lean into the art of medicine: treating and healing patients with empathy, concern, and shared solidarity during these challenging times.

During our educational journey as medical providers, we gain new vocabulary and syntax, learning a new language that succinctly and accurately describes clinical history, symptoms, and differential diagnosis to fluidly and efficiently communicate with each other. As scientific practitioners of medicine, we dive deep into the literature, trusting and developing clinical practice guidelines based on existing evidence. And as artists in medicine, we try to assertively yet calmly meet our patients where they are, translating this language back into digestible pieces of information to provide some clarity and reassurance during a tumultuous period in their lives.

When coronavirus disease 2019 (COVID-19) emerged, causing a global pandemic, providers and patients alike sought accurate data in the midst of an "infodemic"[2] devoid of clear, evidence-based practice. As policymakers and leaders struggled to determine next steps, medical providers

were shrouded in the same uncertainty and anxiety that engulfed the general public. Placed under the same blindfold as our patients, we lacked clarity around transmission, infectivity, or treatment options for this new disease; every child with a cough, runny nose, or fever was a suspect harboring COVID-19, pushing us to the precipice of uncertainty. We struggled with limited testing capacity and pediatric evidence that hampered our ability to risk-stratify pediatric patients, not knowing which ages and comorbidities rendered children vulnerable to COVID-19 complications. Testing, isolation, and hospitalization criteria changed regularly as we attempted to keep up with emerging evidence. Early reports of mild pediatric disease lulled us into a false sense of security until multisystem inflammatory syndrome in children (MIS-C) emerged, pushing us to explain novel findings to families even as our own understanding evolved. Decisions regarding disposition, isolation, and treatment were made without the anticipated clinical course or treatment modalities that typically guide our approach to patients and their families. Every step of the way, we worried about missteps that might unintentionally harm someone, whether our patients or loved ones.[3]

In the ensuing scramble to protect our patients, families, and ourselves, we did everything possible to assuage our fears. We scoured firsthand accounts of what it was like to have, treat, and transmit the disease, sifting personal anecdotes from acquaintances and strangers shared through informal provider networks. Without clearly understanding how children might carry or manifest the disease, we evaluated families' living situations and their abilities to self-isolate, all the while wondering if we might infect our own families. We even acted in knowing opposition to guidelines, donning multiple masks at once or seeking workarounds to testing and treatment

algorithms. And we catastrophized, preparing for worst-case scenarios as providers and patients alike succumbed to this new and frightening disease.

Drs. Simpkin and Schwartzstein write, "being uncertain instills a sense of vulnerability in us - a sense of fear about what lies ahead."[4] In a space where we are typically equipped with knowledge, experience, power, and control, we find ourselves bare without our familiar toolbox. We too are scared, fearful for ourselves and our loved ones, and we trust our own instincts and decisions more than guidelines designed to keep the population—everyone else—safe. We hold similar fears, and fall back on similar coping mechanisms, as our patients. We feel overcome by our own vulnerability, even as we leap to care for patients and families during this deadly pandemic.

Mired in the same frustrations, uncertainties, and fears, we have an opportunity to sit with our patients in empathy—*en pathos*, or "in suffering" in Greek—and practice using the tools that equip us as artists in medicine: empathy, compassion, concern, and reassurance. Empathy through shared feelings of uncertainty as fellow parents, siblings, and children, in addition to our roles as pediatricians. Compassion for our patients' and families' pain and suffering, especially in light of prolonged isolation from schools, support networks, and community resources. Concern for the current and future wellbeing of families, who experience worsening mental and behavioral health exacerbated by food insecurity, loss of childcare, and delays in healthcare.[5] And reassurance that every day, researchers, healthcare workers, and leaders gain more knowledge and expertise regarding how best to treat, mitigate, and prevent spread of COVID-19

so that we may sooner return to more normal lives. As providers who care for families and communities, we have unique opportunities to identify, acknowledge, and—wherever possible—alleviate the complex challenges facing our families. Pediatricians can partner with mental health providers, schools, and community organizations to address behavioral health concerns, provide guidance and support around social isolation and educational challenges, and advocate for policies that prioritize food and housing security during and following the pandemic. Through a broadened scope of services and clear, consistent, and family-centered messaging, we can use both evidence and empathy to empower families and support public health efforts.

Finally, we should remember that feelings of anxiety and bewilderment permeate healthcare settings. Even common complaints are anxiety-provoking without the knowledge, experience, power, and control we hold in clinical spaces. We should empathize with patients' discomfort with uncertainty, and remember that recommendations without supporting information may leave patients to wonder what we aren't considering—or what we are hiding. Medical expertise is rarely unambiguous; medical dogma is often challenged and proven wrong, and patients seek and receive medical advice within this context.

We hope that through this COVID-19 experience, pediatricians will lean more into the art of medicine by meeting patients' concerns with empathy, engaging with families to identify viable solutions, and expressing uncertainty together.[6] After all, "Medicine's ground state is uncertainty. And wisdom - for both the patients and doctors - is defined by how one copes with it."[7]

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