Dogmas, evidence, and pediatrics practice

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Dogma: proposition taken as sure and as an undeniable principle.¹ Scientific evidence: results of studies elaborated according to the best scientific methods used in each area of knowledge to systematize and analyze the information in a documentable and reproducible way.²

The teaching-learning process of a medical specialty includes the initial incorporation of certain "dogmas" transmitted by our teachers. They are the primary basis for the subsequent incorporation of new and increasingly complex knowledge, which must simultaneously include learning how to apply it responsibly in the care and accompaniment of patients. In pediatric care, we use many dogmas, and context, beliefs, personal experiences, and customs influence medical decisions.

In medicine, we understand as scientific evidence the concepts demonstrated in well-designed research, meta-analyses, consensus, and guidelines elaborated by experts. This evidence allows us, in many cases, to understand and argue many of the dogmas better. An obvious example is the innumerable benefits of breastfeeding on our patients’ current and future health, which are amply demonstrated today through new knowledge of the composition and functioning of the intestinal microbiota.³ This "bacterial key" is a fundamental link in immune development, metabolic programming, and neurodevelopment, whose pathway begins at the time of vaginal delivery and is prolonged and deepened by breastfeeding.⁴ New epigenetic knowledge also explains the influences of the environment and the love of nurturing on the expression or repression of genes, which modify growth and development. Undoubtedly, the research and development of increasingly safe and effective vaccines is another clear example, sustained over time, of vaccination as an essential tool in public health.

Conversely, the same scientific evidence forces us to modify certain dogmas. There are very eloquent examples: the sleeping position of infants (in my early days as a pediatrician, 38 years ago, I made a particular point of telling the parents of my patients to sleep in the ventral decubitus position for fear of "choking" due to gastroesophageal reflux);⁵ the same applies to the late incorporation of gluten or suspected allergens in patients with a family history of celiac disease or allergies.⁶,⁷

In the internal medicine setting, the number and speed of dogma revision are even more significant in hydration plans, type and duration of antibiotic and other drug therapy, and bundled care in patient safety, among others. Updates are ongoing.

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The volume and speed of the appearance of scientific information in recent years have been enormous, and its socialization and access are greatly facilitated by information technology. Pediatrics involves a lot of healthcare time, and the permanent updating of knowledge is complicated.

The fundamental task of scientific societies such as the Sociedad Argentina de Pediatría is to facilitate this updating for its members through the work of its committees and working groups, reflected in its different training and communication tools.

By managing mega data grouped in algorithms, artificial intelligence (AI) is offered as an alternative in full development to become a tool of fundamental use in the coming years in all areas of medicine, including updating concepts.9

However, from the point of view of medical care, people practice medicine, and the doctor-patient relationship occurs between people. A fundamental feature of this relationship is medical ethics. AI lacks ethics: it is a tool that can help us to set a roadmap. In addition to knowledge, we physicians bring to the practice of our profession a significant percentage of humanism, expressed as empathy with our patients and emotional intelligence to resolve situations that definitively mark our task and its achievements.

In short, for a better practice of our profession, we must be willing to review our "dogmas" and be open to modifying them if the scientific evidence shows us that way (not to persist in "I have always done it this way and it works well for me"), permanently guided by ethics, with a very high percentage of empathy, responsibility, and emotional intelligence. ■

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