



The pediatrician and vaccine hesitancy

O pediatra e a hesitação vacinal

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The evolution of vaccination coverage in Brazil can be understood in three distinct historical phases, each essential for confronting vaccine hesitancy.¹ This analysis must account for the role of heuristics and cognitive biases in decision-making, mechanisms that, over the course of human evolution, have enabled rapid responses to perceived threats. In the context of vaccination, these mechanisms, mediated by emotion, can either promote adherence or amplify resistance.²

The historical analysis of vaccination coverage in Brazil reveals distinct patterns of public behavior toward immunization, which may be grouped into three major stages.

Phase 1 – High confidence and engagement (until the mid-1990s): Marked by a heightened perception of the risks posed by vaccine-preventable diseases and a collective memory of epidemics. Vaccination was regarded as a civic duty and an act of collective protection. Adherence was spontaneous and widespread, driven by large-scale campaigns backed by strong institutional credibility.

Phase 2 – Maintenance with signs of saturation (mid-1990s to mid-2013): The declining incidence of various diseases reduced risk perception, although vaccine coverage remained high. Motivation

to vaccinate increasingly depended on active mobilization and targeted outreach to those overdue for immunization. For certain groups, vaccination ceased to be an automatic priority.

Phase 3 – Decline and the emergence of hesitancy (mid-2015 onward): Characterized by sustained reductions in coverage, driven by multiple factors including low risk perception, erosion of institutional trust, misinformation, and barriers to access. Vaccination behavior became more selective and more susceptible to the influence of inaccurate information. Thus, vaccine hesitancy cannot be attributed solely to misinformation (fake news); rather, it represents a multifaceted behavioral phenomenon.

How strong is confidence in vaccines among the Brazilian population today?

According to the Quantitative Study on Vaccine Awareness, published in June 2024, confidence in vaccines remains predominant among Brazilians, although not unanimous. In every 10 respondents, 7 (72%) report trusting vaccines, with 33% expressing strong trust. Conversely, 26% say they trust vaccines only slightly, and 8% do not trust them at all, indicating the persistence of a skeptical segment. Perceived importance elicited even stronger consensus: 90% consider vaccines important for personal, family,

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and community health (57% “very important,” 33% “important”). Only 8% consider vaccines to be of little or no importance. The study also investigated feelings of insecurity. More than one-quarter of respondents (27%) reported having felt afraid to be vaccinated or to vaccinate a child or adolescent, an indicator that underscores the need for welcoming and empathetic communication strategies. Confidence in vaccine safety and efficacy remains high. Vaccines are considered safe by 80% – 51% “very safe” and 29% “moderately safe” – while only 19% disagree. Regarding efficacy, 86% believe that vaccines prevent disease (58% “very effective,” 28% “moderately effective”). Only 11% hold a negative view, considering vaccines to be minimally or not at all effective.³

Taken together, these data reinforce that most of the population values vaccination as an essential public health tool. However, the persistence of doubts, fears, and resistance among a substantial segment of Brazilians highlights the ongoing challenge of strengthening confidence through clear information, facilitated access, and empathy-based communication.

Human beings are “irrational” by nature and rely heavily on affective influences when making real-time decisions. Risk perception encompasses individuals’ beliefs, attitudes, judgments, and feelings regarding danger. People subjectively assess both the likelihood and severity of potential hazards in any given situation.⁴

How does an anti-vaccine physician operate? Anti-vaccine physicians typically ground their discourse in an ethics of conviction rather than an ethics of responsibility. They use their professional authority to validate distorted or unfounded claims, thereby conveying a false sense of security to patients. Their strategy often relies on sowing doubt while appearing genuinely concerned. To reinforce their message, they cite retracted or low-quality studies presented as “hidden truths” that others supposedly fear to reveal.^{4,5} However, these physicians overlook fundamental principles of public health, such as precaution and solidarity, while minimizing serious diseases by claiming that “the illness is mild” or that “everyone has had it and survived.” Their communication is marked by perceived empathy — they listen attentively, validate doubts, and avoid direct confrontation, leading patients to view them as humane, independent, and courageous. They also favor emotional, accessible language and rely on personal anecdotes, patient stories, and belief-based narratives. Ultimately,

they elevate “individual autonomy” above collective well-being, affirming and even amplifying families’ uncertainties: “You are right to question.”⁴

Given this scenario, pediatricians must adopt a strategic approach with hesitant families. Rather than directly discrediting anti-vaccine rhetoric, clinicians should listen actively, demonstrate genuine empathy, and build upon this rapport to offer clear, evidence-based information in accessible language. Most importantly, they should use real stories of protection and examples of lives saved, narratives that can transform technical data into meaningful, comprehensible experiences for families.⁵

Understanding human behavior (including our own) is essential. We process risk instinctively and almost automatically, as if it were a natural reflex, responding through feelings and emotions. This reaction occurs continuously, and how we feel about a risk often outweighs our rational assessment of it. Furthermore, we always favor ease: when an immediate benefit outweighs perceived costs, we often accept risks in pursuit of comfort, practicality, and convenience.

Immediacy is another key factor, as we assign greater value to certain, immediate benefits than to distant or uncertain costs. Our past experiences also strongly shape our risk perceptions, influencing our confidence or apprehension in future situations. Finally, many of our decisions occur on “autopilot” – as creatures of habit, we often act on intuition and impulsive emotions that guide our decisions across various circumstances.⁵ Therefore, communication must balance empathy with high-quality information; active listening and relational warmth are indispensable. Storytelling is one of the most powerful tools available. Sharing personal or clinical experiences offers emotive and relatable narratives that personalize medical guidance and motivate patients. Unlike scientific data, stories convey life experiences and values. They are effective because they are memorable and relatable.⁶

In summary, when faced with vaccine doubt or refusal:

- welcome the family and acknowledge their concerns;
- avoid directly attacking fake news; for those who believe such claims, their sources appear to be physicians like you;
- refrain from insisting on epidemiological data, as most people do not identify with those numbers;
- tell a story.

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