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Opinion: Why Research Professionals Should Experience Clinical Trials

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The clinical research enterprise is a complex network of dedicated individuals, including principal investigators, clinical coordinators, institutional review board (IRB) members, and administrative and legal staff. Each plays a vital role in advancing science while protecting human subjects. However, these roles can create a professional distance from the very individuals the system aims to serve and safeguard: the research participants. Participating firsthand in an interventional clinical trial is an invaluable, and perhaps essential, experience for research professionals. It fosters deep empathy that can turn abstract principles of ethics and logistics into a tangible understanding, ultimately leading to more effective and participant-centered research review.

I volunteered for an interventional malaria vaccine trial conducted by the Walter Reed Army Institute of Research (WRAIR) with some of my classmates during medical school. The study involved being infected with *Plasmodium falciparum*, the deadliest malaria parasite, to assess the vaccine's effectiveness. Mosquitoes infected with the parasite were allowed to feed on us. From a future doctor's perspective, it was a fascinating opportunity to contribute to science and observe how research functions. Saying my mother was not pleased when she found out I signed up is an understatement!

During the informed consent process, the research team discussed the potential risks, including the high chance of contracting malaria if the vaccine failed. Importantly, they also explained the logistical burden. We were assured that the study's schedule was planned so any illness would likely happen during our Spring break, reducing disruption to our demanding coursework.

This logistical detail heavily influenced my decision to enroll. However, unexpected protocol delays—a common issue in research—disrupted the schedule. The vaccine proved ineffective. I, along with others, contracted falciparum malaria, but not during Spring break's quiet period. Instead, the fevers, chills, and severe fatigue hit me right in the middle of a new academic term. What was initially presented as a controlled, low-risk situation turned into a major educational and personal crisis.

That experience fundamentally changed my understanding of informed consent. I realized that consent isn’t just about understanding the clinical risks of a drug or procedure. It’s about a comprehensive understanding of the entire burden placed on the participant. This includes the time commitment, discomfort, anxiety, and real-world impact of protocol deviations. The assurance about timing wasn't a minor detail; it was a central part of the agreement, and its

failure was a breach of the spirit of the consent, if not the legal letter. The researchers hadn't lied, but they had presented a best-case scenario as certain, not adequately disclosing the potential impact of logistical shifts.

Without firsthand experience, research professionals may see a protocol only from an administrative, regulatory, or scientific perspective. Participating in a trial bridges this empathy gap. It requires sitting in the waiting room, feeling the needle stick, rearranging work and family commitments for study visits, and experiencing the anxiety of possible side effects or, as in my case, the full consequences of the intervention failing. An IRB member who has experienced the sting of a poorly worded consent form or the frustration of a protocol delay is much better prepared to review a new study. They will naturally review the study with an eye toward more probing questions.

- Is the time commitment described realistically, including travel and waiting time?
- Is the compensation truly fair for the burden being undertaken?
- What contingency plans are explained to participants if the study timeline slips? Should they be reconsented if that occurs?
- Is the language used to describe side effects clear and relatable, or is it minimized with clinical jargon?

Decades after my participation in the trial, the landscape of malaria prevention has evolved. The long and difficult scientific journey has achieved great success with the approval and distribution of two effective vaccines, RTS,S/AS01 (Mosquirix) and R21/Matrix-M. WRAIR has played a key role in this progress. This decades-long dedication, from basic research to essential clinical trials, directly contributed to the world's first approved malaria vaccine.

Requiring everyone involved in research to enroll in an interventional trial isn't practical for many reasons. But the lesson is clear: empathy isn't a "soft skill" in this field; it's a core part of ethical and practical research. My experience has shown me that a protocol's success isn't just measured by its scientific findings, but by how well it respects the trust and humanity of its participants. By actively seeking out and listening to the participant perspective—and for those able, by experiencing it firsthand—researchers, coordinators, and IRB members can progress from a culture of mere compliance to one of genuine compassion and partnership. This change doesn't weaken science; it enhances the entire effort by ensuring it's based on true informed consent and a deep respect for the people who make medical progress possible.