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# In Reply to Robison et al and

White et al: We appreciate the thoughtful responses to our recent article about the role of virtual patients (VPs) in the future of medical education. The letters by Dr. Robison and colleagues and by Dr. White and colleagues suggest that educational technologies may move beyond virtual *patients*, to virtual humans and virtual families. These are interesting and exciting proposals.

Our article addressed several challenges facing medical education, each of which we thought was particularly amenable to VP-based educational strategies. These challenges were in no way meant to be an exhaustive list of challenges facing medical education, or of possible uses of VPs. The letters point to additional challenges, such as patient- and family-centered care, communication skills, and interprofessional education, all of which are very important areas for improvement in medical education. We agree that there is also a place for virtual humans, virtual families, and virtual teams to address these issues. We also suggest that as Dr. Robison and colleagues and Dr. White and colleagues continue their work, they remain focused on developing products that will be used broadly, address important challenges, use sound educational strategies, and result in improved educational outcomes.

Ultimately, whether thinking about educational technologies or any other teaching methodology, what really matters is what is learned. With educational technology the possibilities are virtually unlimited, and there is a risk that technological features will result in cognitive overload rather than more learning. As educators try to advance the field by using educational technology, continued attention to educational theory and instructional design will remain critical.

### Disclosures: None reported.

### Norman B. Berman, MD

Professor, Department of Pediatrics, Geisel School of Medicine at Dartmouth, Hanover, New Hampshire; norman.berman@dartmouth.edu.

### Steven J. Durning, MD, PhD

Professor, Departments of Medicine and Pathology, Uniformed Services University School of Medicine, Bethesda, Maryland.

Martin R. Fischer, MD, MME Professor and chair for medical education, University Hospital, LMU Munich, Munich, Germany.

#### Soeren Huwendiek, MD, MME

Senior lecturer and department head, Department of Assessment and Evaluation, Institute for Medical Education, University of Bern, Bern, Switzerland.

### Marc M. Triola, MD

Associate professor and associate dean for educational informatics, New York University School of Medicine, New York, New York.

## The "Triple P": Adaptive Challenges in Medical Education and Practice

To the Editor: We read with interest Lown and colleagues'1 recent article on integrating a compassionate, collaborative care (the "triple C") model into health professions education. Their work provides an excellent framework for moving closer to achieving Berwick and colleagues'2 "triple aim" of improving patients' health and enhancing their experiences of care while concomitantly reducing costs. Organizational psychology suggests, however, that little substantial progress will be made until other issues-adaptive challenges that block changes in behavior-are brought out from the shadows, honestly examined, and coped with creatively and responsibly.3 In medical education and practice (as in other areas that have informed our thinking<sup>4,5</sup>), these underlying issues commonly form the "triple P" of power, prestige, and profit, especially when valued as terminal objectives on their own.

We are concerned that the "triple P" factors have not yet been explicitly acknowledged and will thus continue to work against the development of compassionate organizational learning and service environments. We suggest that those interested in promoting more humanistic health care explore how power, prestige, and profit both add to and detract from progressive initiatives that support organizational professionalism.6 We encourage them to address these "triple P" factors as an unambiguous step toward transparency and efficacy on their paths to reforming medical education and practice.

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### William Ventres, MD, MA

Research associate, Institute for Studies in History, Anthropology and Archeology, University of El Salvador, San Salvador; wventres@gmail.com.

### Jeff McAuliffe, MA

Graduate faculty member, Leadership and Organization Development, Saybrook University, Oakland, California.

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### In Reply to Ventres and

**McAuliffe:** We agree with Drs. Ventres and McAuliffe that systemic change in medical education and practice is necessary to address the challenges of "power, prestige, and profit" that can work against institutional and organizational compassion and collaboration. The triple C "compassionate, collaborative care" is a necessary starting point to achieving systemic changes. The following

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