In the discussion section, I outlined the implications of my main findings. Now I will extend those implications beyond their scientific relevance. Talk plays a central role in clinical education, both in structured educational experiences and in the workplace. Thus, logical consequences include: (a) how we prepare faculty to engage with trainees, (b) how we prepare trainees to engage with faculty, (c) how we design curricula and clinical workspaces, and (d) how we augment team behaviors that promote shared understandings as well as team and individual learning. A key question relates to strategies that encourage uptake and use of my findings in educational practice.

Translating knowledge

As my work highlights, structured debriefing conversations have both process and content elements that educators can learn and master over time, making this an issue for faculty development. Colleagues and I have sought to disseminate our knowledge about the PEARLS debriefing framework at simulation and medical education conferences around the world, including multiple times at the International Meeting on Simulation in Healthcare, the International Pediatric Simulation Symposium and Workshops, and Pediatric Emergency Medicine Days in Germany.

In addition, I teach actively on a number of basic and advanced simulation educator courses locally in Chicago, as well as the Harvard Center for Medical Simulation and EuSIM and PAEDSIM courses in Europe. We have integrated principles from the PEARLS blended debriefing approach into these curricula. Attendees of these courses and conference workshops include physicians, nurses, and health professions educators from a variety of clinical and educational domains. We have codified our approach to teaching the PEARLS method in an invited PEARLS faculty development guide in Clinical Simulation in Nursing. PEARLS has become the preferred debriefing approach in many undergraduate nursing programs in the United States and Canada.

For many simulation educators, traveling to simulation conferences or obtaining funding to attend simulation educator courses represents a significant financial challenge and time commitment, so we have strived to create online resources. To make our work more widely accessible, my PEARLS collaborator Dr. Adam Cheng and I have joined forces with other international simulation experts to create and manage a website called Debrief2Learn.org. Debrief2Learn is a not-for-profit online repository of healthcare debriefing resources for simulation educators around the world. As such, social media such as Twitter plays an important role in directing interested educators to our collated body of work. Further, in response to calls for an even more user-friendly PEARLS debriefing script, we recently published a PEARLS infographic in Academic Medicine. With permission of the editors at Academic Medicine, we have made the PEARLS Debriefing Tool accessible through Debrief2Learn in a number of formats for printing and posting in debriefing rooms and for display on smartphones or tablets. The PEARLS Debriefing Tool has also been translated into multiple languages, including German, Spanish, French Japanese and Mandarin Chinese to name a few. More are in the works. I have also been invited to participate in online podcasts and journal clubs.
making these avenues important to disseminate my work since they create enduring resources educators can access anywhere at any time.

Managing the talk

My findings about the talk in clinical workplaces have implications for physician education, although these considerations likely have applicability for clinicians from other professions as well. As my work has shown, some conversational tensions can be productive. In my view we must prepare physicians-in-training for their clinical encounters and sensitize them to the implicit or disguised feedback that such productive conversational tensions represent. I have already implemented a Telephone Talk workshop for a mixed audience of clinical supervisors and physicians-in-training as a forum to encourage dialogue about these important clinical interactions. A more formal curriculum for postgraduate physicians is under development that integrates notions of ‘simulation as learning how to learn’ from Chapter 7.

I have the great fortune of serving as an invited speaker to a broad range of clinical faculty in academic and community settings. I have already started integrating these important lessons about formal and informal clinical talk into keynote speeches, courses and workshops. Examples of upcoming conference keynote speeches and workshops include the New Zealand Association for Simulation in Healthcare in Auckland in late 2018 and the Prato Clinical Skills Conference in Italy in spring 2019.

In terms of team reflexivity, the work presented in Chapter 8 has spawned not only a growing research program to delineate mechanisms for team reflexivity, we have already begun integrating these notions into simulation curricula for health professionals. Examples include local simulation courses at Ann & Robert H. Lurie Children’s Hospital of Chicago and in pediatric team training courses with PAEDSIM, a German-speaking pediatric simulation collaborative in Germany, Austria, and Switzerland. PAEDSIM courses are designed for a multidisciplinary and interprofessional spectrum of pediatric professionals. I have been co-directing the PAEDSIM train-the-trainer courses for the past 7 years, and we have incorporated principles of team reflexivity into simulation educator training. To spread these lessons beyond these contexts, I have collaborated with Jan Schmutz and others to publish practical and easy to understand papers in both German and English.

- A 12 Tips paper in Medical Teacher on integrating team reflexivity into simulation-based team training (2018).7

Simulation appears to be an ideal venue to give clinicians a chance to experience and reflect on team reflexive behaviors. Finally, I am currently working with collaborators in research, education and clinical practice to translate lessons learned from healthcare simulation to clinical event debriefings after real situations in the workplace.8
Summary

My collective body of PhD related scholarship has implications for educators in both simulated and clinical settings, making faculty development imperative. In addition, strategies to prepare trainees for the talk of practice could yield tangible benefits for their learning. Finally, when designing curricula, workflows, and workspaces, we must consider the impacts on the talk of practice, since it has great implications for learning and patient care.

References
