Risky Business: Psychological Safety and the Risks of Learning Medicine

William E. Bynum, MD
Taha M. Haque, DO

It is Sunday night, and Dr A is a first-year resident contemplating, with a twinge of dread, his upcoming week on the wards. He will be required to accurately gather information about his patients. He will stand up in front of his peers, supervisors, and staff from other departments and present, in a highly methodological fashion, what he has gathered. He will be asked questions to probe his knowledge and identify knowledge gaps. He may make mistakes, miss vital information, and incorrectly answer questions. He will receive feedback about his performance, and, in the midst of all these things, he will reflect on his self-worth and professional identity. All of these occurrences, which Edmondson[1] has termed *learning behaviors*, will provide opportunities for personal and professional growth, acquisition of knowledge, and development of resilience.

However, Dr A also feels like he is "under a microscope" of constant evaluation and fears that engaging in these normal learning behaviors might lead to judgment, reprisal, and humiliation should he stumble or fail. The ambiguity and uncertainty that exist in the clinical learning environment increase the risk associated with his learning experience. Coupled with the presence of constant evaluation, he is susceptible to a set of intrapersonal risks that do not possess inherent learning value but are exceptionally powerful. These include the risks of feeling incompetent, unworthy, or deficient; experiencing marginalization and impaired belonging within a team; being humiliated by trusted advisors; having to remediate in the face of academic struggle; and being blamed or held legally responsible following a medical error. As Dr A's intern year progresses and these "micro" risks accumulate, "meta" risks may emerge, including the potential to feel burned out, depressed, socially withdrawn, less empathetic, and ready to quit medicine altogether.

The construct of psychological safety deals with the degree to which learners such as Dr A perceive their work environment as conducive to engaging in behaviors that have inherent intrapersonal risk.[2] Within the field of medical education, psychological safety describes how a learning environment mitigates or exacerbates the risks learners *must* take to learn medicine. If his learning environment is psychologically safe, Dr A will feel secure speaking up, asking for help, revealing his personality, and fully engaging with uncomfortable but necessary learning behaviors. The converse will be true if his environment is psychologically unsafe.

In this issue of the *Journal of Graduate Medical Education*, Torralba et al[3] utilize data from the Department of Veteran Affairs Learners' Perceptions Survey and show a positive association between the construct of psychological safety and residents' satisfaction with the clinical learning environment. Their data suggest that if residents feel that they are able to raise problems and tough issues, they are likely to have a more positive perception of their learning environment. They also report a few factors that may predict the degree of psychological safety that they experience.[3] These are important findings in the midst of a growing movement to optimize the medical learning environment. It appears that psychological safety may play a key role in how medical learners perceive the atmosphere in which they work and learn.

An important next step will be to determine how the learning environment *itself* affects the psychological safety that medical learners experience. Intrapersonal risk is closely linked with psychological safety,[1] and the level of the risk and nature of its outcomes may be heavily influenced by the learning environment. A key component of this environment is *how* faculty and colleagues respond to normal learning behaviors, such as making a mistake or not knowing the answer to a question. The nature of their responses may mitigate or exacerbate the inherent risks of learning, but may also give rise to risks that are *not* inherent to learning, which include the possibility that learners will be mistreated, humiliated, harshly punished, unfairly remediated, or unjustly marginalized. Low levels of psychological safety are likely to be found in learning environments in which the baseline risk of learning medicine is exacerbated by such extrinsic, unnecessary risks. Indeed, when learner mistreatment, punitive responses to error,

DOI: http://dx.doi.org/10.4300/JGME-D-16-00549.1

derision within teams, and hierarchical oppression occur in a medical learning environment, this transforms what is already a risky endeavor (ie, learning medicine) into a psychologically unsafe situation.

Future research should seek to further characterize the effects of low psychological safety on learner behavior and well-being. According to Edmondson,[1] learners in any environment naturally seek to minimize the risk of harm to their self-image, and often adopt avoidance behaviors in situations where effects on self-image are uncertain. This tendency, she argues, is especially prevalent in environments marked by constant evaluation, large power differentials, and pervasive hierarchies,[1] all of which abound in many clinical learning environments. Take, for instance, failure to report adverse events, a classic avoidance behavior. Appelbaum et al[4] recently showed that perceived power distance and leader inclusiveness predicted psychological safety, and that psychological safety predicted the tendency for residents to report adverse events. Their results suggest that residents are discouraged from reporting adverse events in psychologically unsafe learning environments with poor leader inclusiveness and large power differentials. Such avoidance behaviors may be even more pervasive in learning environments in which power differentials and hierarchies are exacerbated by mistreatment, humiliation, and punitive responses to mistakes.

For example, the use of "pimping," when performed harshly and under the guise of the Socratic method, can embarrass learners and reinforce power differentials, rather than facilitate learning. For many learners, being questioned in a semipublic forum is an inherently risky endeavor. The potential of feeling humiliated and debased enhances the perceived risk significantly, with a detrimental effect on resident psychological safety and willingness to engage in learning.[5]

Learners' propensity to shy away from risky situations in order to protect their self-image may be driven by a desire to avoid or minimize internal shame. Shame is a self-conscious emotion that results from a negative evaluation of the self and is characterized by feelings of being internally flawed, deficient, or unworthy.[6,7] Self-image and shame are intimately linked. Given that shame has been shown to promote hiding and avoidance,[8] it may serve as the *mediating emotion* between unmitigated risk in the learning environment (ie, low psychological safety) and avoidance behaviors in learners. The outcomes of shame in medical learners are largely unknown, but may include impaired empathy, depression, and withdrawal from difficult but necessary learning processes.[9] The tendency for individuals to hide their shame from others may exacerbate the risk of normal learning behaviors, cause social isolation and perceived marginalization, and discourage learners from speaking up or being seen. In light of these possible associations, learners who respond to normal learning situations with shame are likely to experience low levels of psychological safety, with subsequent negative effects on learning and well-being. Furthermore, shame susceptibility is likely higher and psychological safety lower in suboptimal learning environments marked by humiliating and punitive treatment toward learners. In other words, a learning environment characterized as "psychologically unsafe" is likely to produce feelings of shame in many learners.

As we strive to address suboptimal learning environments in medical education, psychological safety—and the many factors that influence it—must become the foundation of our reform efforts. Despite its importance, relatively little is currently known about the construct of psychological safety in medical education, and a program of research is needed to build on the emerging data from Torralba et al[3] and others.[4,10,11] New studies should focus on medical learners' perceived risks, factors that influence these risks, associated outcomes such as avoidance behaviors and achievement of specific competencies and milestones, and overall impact on learners' experience within their clinical learning environment. Such a research program might start with qualitative assessments that seek to characterize the construct of psychological safety in medical education and the risks that medical learners face within their learning environments. Associations might then be tested among various related constructs such as shame, mistreatment, and depression/suicidality.

This research will take time, and efforts to mitigate the risks of learning medicine, decrease avoidance behaviors, and create psychological safety in our learning environments can *and must* begin immediately. Faculty development and resident-as-teacher training can enable supervisors to provide difficult feedback, respond to errors, correct deficiencies in a nonshaming manner, and recognize intrapersonal distress when it occurs. Programs should optimize interpersonal communication among members of the learning environment and address status-based barriers to communication.[10] Program leaders should provide opportunities for learners to build connections with one another and generate support networks within which risk can be discussed, normalized, and shared, with or without the presence of faculty.[12] Finally, institutions must actively work to reform the culture of graduate medical education and remodel

the experience from a hierarchical, stressful rite of passage to a process in which learners willingly take risks and endure challenges within the confines of an inclusive, nurturing, and psychologically safe learning environment. Coupled with these initiatives should be the *complete elimination* of behaviors that intentionally and unnecessarily exacerbate the baseline risks of learning medicine, which include mistreatment, humiliation, harsh pimping, uncivil behavior, shaming, exaggerated power differentials, and intergenerational derogation.

We will never create the psychologically safe learning environments that learners need and deserve as long as these malignant forces exist within them.

References

1. Edmondson AC. Managing the risk of learning: psychological safety in work teams. In: West MA, Tjosvold D, Smith KG, eds. *International Handbook of Organizational Teamwork and Co-operative Working*. West Sussex, England: John Wiley & Sons Ltd; 2003:255–275.
2. Edmondson A. Psychological safety and learning behavior in work teams. *Admin Sci Q*. 1999;44(2):350–383.
3. Torralba KD, Loo LK, Byrne JM, et al. Does psychological safety impact the clinical learning environment for physician residents: results from the VA's Learners' Perceptions Survey. *J Grad Med Educ*. 2016;8(5):699–707.
4. Appelbaum NP, Dow A, Mazmanian PE, et al. The effects of power, leadership and psychological safety on resident event reporting. *Med Educ*. 2016;50(3):343–350.
5. Stoddard HA, O'Dell DV. Would Socrates have actually used the "Socratic Method" for clinical teaching? *J Gen Intern Med*. 2016;31(9):1092–1096.
6. Kim S, Thibodeau R, Jorgensen RS. Shame, guilt, and depressive symptoms: a meta-analytic review. *Psychol Bull*. 2011;137(1):68–96.
7. Lewis HB. *Shame and Guilt in Neurosis*. 1st ed. New York, NY: International Universities Press; 1971.
8. Lindsay-Hartz J. Contrasting experiences of shame and guilt. *Am Behav Sci*. 1984;27(6):689–704.
9. Bynum WE, Goodie JL. Shame, guilt, and the medical learner: ignored connections and why we should care. *Med Educ*. 2014;48(11):1045–1054.
10. Yanchus NJ, Derickson R, Moore SC, et al. Communication and psychological safety in veterans health administration work environments. *J Health Organ Manag*. 2014;28(6):754–776.
11. Calhoun AW, Boone MC, Porter MB, et al. Using simulation to address hierarchy-related errors in medical practice. *Perm J*. 2014;18(2):14–20.
12. McKenna KM, Hashimoto DA, Maguire MS, et al. The missing link: connection is the key to resilience in medical education. *Acad Med*. 2016;91(9):1197–1199.

William E. Bynum, MD, is Attending Faculty, National Capital Consortium Family Medicine Residency; and **Taha M. Haque, DO,** is PGY-3 Resident Physician, National Capital Consortium Family Medicine Residency, Fort Belvoir Community Hospital.

Corresponding author: William E. Bynum, MD, Fort Belvoir Community Clinic, 9300 DeWitt Loop, Fort Belvoir, VA 22060, 571.231.1803, fax 571.231.1834, bynum.will@gmail.com