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From the Editor
Culture Matters

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Cardiac surgery was born in an era characterized by "great men" or individual leaders that were courageous pioneers, challenging the boundary of what was thought possible. Heart valves, instruments, and procedures were designed bearing their names. Their faces graced the cover of Life, Time, and Newsweek publications. These leaders were heroes that led the way, opened doors, created competition among their colleagues, inspired, and trained others. *So, where have all of the great men (women) gone?* According to Warren Bennis the era of the heroes or "great men" has come to an end and the era of great teams has emerged (1).

In October Neilly and colleagues reported a strong association between implementation of a team training problem and reduction in surgical mortality at Veterans Administration Hospitals (2). The authors reported a 50% reduction in risk-adjusted surgical mortality at programs where team training was implemented. Furthermore, there appeared to be a does-response relationship, such that .05 deaths per 1000 patients was observed per quarter of team training. In an invited commentary on the article Provonost made the observation that historically physicians have had the illusion that they alone were responsible for the patients outcome and that pushing harder will improve outcomes. An archaic view that surgery is a solo performance and not a team effort (3).

Over the past decade, Amy Edmondson and colleagues from the Harvard Business School have published extensively on "working knowledge" (4). This body of work supports Bennis' premise of a new era based on teams. Edmondson and her colleagues' areas of focus in their research includes working environments, productivity, safety, and innovation. She and her colleagues conducted an in depth study of cardiac surgery teams that were in the process of implementing minimally invasive cardiac surgery techniques with the use of robotic technology. They identified characteristics of teams that had successful implementation of such technology and also attributes of local team culture that inhibited successful implementation. According to Edmondson,

> *"In an industry context in which individual heroism and skill are assumed to be the critical determinants of important outcomes, this study produced evidence that empowering a team and managing a learning process matter greatly for an organization's ability to learn in response to external innovation".* (5)

They further reported that it was evident that success was not dependent on greater skill, superior organizational resources, or more past experience, as drivers of innovation. Surprisingly, it was face-to-face leadership and teamwork that allowed some organizations to successfully adapt to new disruptive technology.

So then, disruptive technology is challenging, but what about disruptive behaviors in health care? Rosenstein and O'Daniel have studied the impact of disruptive behaviors and related communications on patient safety (6). They used a 22 question, Nurse-Physician, survey instrument given to over 4500 professionals at 102 hospitals. Eighty-eight percent reported that they had witnessed disruptive behavior from physicians and 67% of the respondents reported that these behaviors were linked to medical errors in 71% of cases and death in 27%. The authors provided 12 recommendations to address such behaviors, including recognition and awareness, incident reporting, education and training, communication tolls, discussion forums, and interventional strategies. Their study delved into the effects of these behaviors on hospital staff retention and engagement. The cost associated with ignoring disruptive individuals was staggering in their estimation.

The Agency for Healthcare Quality and Research provide safety culture surveys that may be used to provide an assessment of a local hospital's culture (7). The survey assesses the culture in various healthcare settings and among healthcare provider groups. Like a diagnostic screening panel, the survey may be used to assess the attitudes in these settings and provider groups and diagnose areas that may be of concern. The survey may be conducted periodically to provide longitudinal assessment of the effectiveness of interventions and "tests of change" to move the cultural dial over time.

In this issue of the Journal we are pleased to publish the Proceedings of the Perfusion Down Under Conference. Two of the 12 manuscripts (Merry and Spiess) presented at the conference focus squarely on the subject of local culture, specifically: decision making, safety, and communication.

The current healthcare climate is one of extraordinary pressure to perform at a level of excellence. The powerful force imposed by public reporting of performance has created an ever increasing high stakes, high pressure proposition for cardiac programs. This growing body of evidence suggests that *"Culture Matters"* in attaining the high level of performance that is now expected.

> ". . . while we can't achieve perfect performance individually, we can achieve it as a mutually supportive and flawlessly communicating team." John J. Nance (8)

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