Teaming Up for Patient Safety: A Case Study of Social Interactions Among Surgical Team Members
Michelle Leak
Administration, Mayo Clinic Florida

Overview of Design, Data Collection, and Analysis
A study of interdisciplinary teamwork was conducted from June to December 2013. Twelve (12) orthopedic surgical cases (two cases for each of the six surgeons participating in the study) were observed using the Observational Teamwork Assessment for Surgery (OTAS) instrument. OTAS highlights five dimensions of teamwork: cooperation; coordination; communication; situational awareness; and leadership; as well as exemplary behaviors specific to each dimension. The instrument deploys a seven-point scale from 0 to 6 where 0 indicates severely hindered team function and 6, exemplary team function. The Orthopedic Surgical team scored 5.58 on overall teamwork. In addition to observations, one-on-one interviews were conducted with thirty-five (35) surgical team members and two supervisors.

Findings, Conclusions and Significance
This study finds that high-performance surgical teams exhibit patterns of behavior reflecting traditional teamwork behaviors and that these patterns are integrated and embedded in less observable mindfulness patterns that enable the achievement of traditional social structures, and enhance team capacity and performance. Three observations underpin this finding:
Effective surgical teams exhibit traditional teamwork behavior patterns specific to task-related collaborative behaviors, team adjustment behaviors, and preparation of work accomplishment behaviors (Rousseau, Aube, and Savoie (2006);
Five cognitive processes support and create the conditions for collective mindfulness and represent mental functioning that embraces engagement, improvement, and continuous learning: sensitivity to operations; reluctance to simplify interpretations; commitment to resilience; under specification of structure; and pre-occupation with failures (Weick, Sutcliffe, & Obstfeld, 1999); and
Mindfulness is a prerequisite to the performance of safety behaviors. A dynamic interplay exists between processes of collective mindfulness and traditional teamwork behaviors where each continuously shapes, informs, and reinforces the other.

This study asserts that when exemplar, non-technical, team behaviors are enacted mindfully, the incidence of preventable surgical errors decreases. The extent to which the design of teamwork improvement interventions incorporate tenets of mindfulness, the more rapidly teams will evolve into high performance entities displaying advanced communication, cooperation, coordination, situation awareness, and leadership skills.

References