A Systematic Approach to Safe and Highly Reliable Care

Michael Leonard, MD
July 24, 2018
Learning Points

• Patient care is a profound social experience - we know how to measure, manage and deliver the components of optimal patient care

• If we can’t care for the caregivers, we will not provide the care patients need and deserve.

• Psychological safety is essential for clinical excellence

• A sociotechnical framework allows for the analysis, action and delivery of sustainable value

• People get out of bed in the morning to do the right thing – we need to create the conditions for success
Unmindful • Reactive • Systematic • Proactive • Generative

Patient & Family Centered Care

Psychological Safety
Just Culture
Teamwork & Communication
Conflict Resolution
Continuous Learning
Improvement
Reliability
Transparency
Leadership

Courtesy IHI & SRH
Cultural Maturity Model

**Value**

**TIPPING POINT**

**REACTIVE**
Safety is important. We do a lot every time we have an accident.

**SYSTEMATIC**
We have systems in place to manage all hazards.

**PROACTIVE**
Anticipating and preventing problems before they occur; Comfort speaking up.

**GENERATIVE**
Safety is how we do business around here; Constantly Vigilant and Transparent.

**UNMINDFUL**
Who cares as long as we’re not caught; Chronically Complacent.

Why is Culture Important?

Culture reflects the behaviors and beliefs within an organization.

There are behaviors that create value; behaviors that create unacceptable risk.

Culture is the social glue

Work as Imagined v. Work as Done
What do we know about your culture?

How well do you measure culture?

What do you do with the data? How reliable is your debriefing, feedback and action loop?

Strengths? Opportunities? How do use culture data to drive sustainable, measurable improvement?
The Value of an Integrated Survey

• The SCOR survey measures important dimensions of organizational culture. The core instrument integrates safety and teamwork culture, local leadership, learning systems, resilience/burnout and work-life balance. The full survey (SCORE) integrates employee engagement as well.

• The insights are critical for organizational improvement and the ability to drive habitual excellence.

• Specific actions can be taken to leverage organizational strengths and address areas of fundamental opportunity.

• Valuable for Magnet, Leapfrog, etc.
Safety Attitude Scores by Engagement Tier Level

Safety Score

<table>
<thead>
<tr>
<th>Safety Climate</th>
<th>Tier I</th>
<th>Tier II</th>
<th>Tier III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average of TeamworkClimate</td>
<td>80.8</td>
<td>66.1</td>
<td>52.7</td>
</tr>
<tr>
<td>Average of SafetyClimate</td>
<td>84.7</td>
<td>72.4</td>
<td>58.6</td>
</tr>
<tr>
<td>Average of ThreatAwareness</td>
<td>44.5</td>
<td>47.8</td>
<td>51.7</td>
</tr>
<tr>
<td>Average of WorkLifeBalance</td>
<td>56.5</td>
<td>50.0</td>
<td>45.0</td>
</tr>
<tr>
<td>Average of JustClimate</td>
<td>78.0</td>
<td>61.0</td>
<td>51.8</td>
</tr>
<tr>
<td>Average of ResilienceClimate</td>
<td>51.8</td>
<td>40.9</td>
<td>32.6</td>
</tr>
</tbody>
</table>

Courtsey Dr. Bryan Sexton, Duke University
Teamwork Climate Scores Across Facility

- CCU: 28
- REHAB: 33
- OR: 36
- EMERG: 41
- 5 WEST: 45
- 6 WEST: 45
- Peds: 49
- Geri: 49
- Dialysis: 51
- Periop: 52
- Pharm: 55
- 3 West: 62
- ICU: 62
- Nicu: 73
- SICU: 75
- Peds: 80
- OB: 98

HCAHPS: 50
Medication Errors per Month: 6.1
Days between C Diff Infections: 40
Days between Stage 3 Pressure Ulcers: 18

Illustrative Data: Extracted from Blinded Client Data
AND EMPLOYEE OUTCOMES

Teamwork Climate Scores Across Facility

<table>
<thead>
<tr>
<th>Facility</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCU</td>
<td>28</td>
</tr>
<tr>
<td>REHAB</td>
<td>33</td>
</tr>
<tr>
<td>OR</td>
<td>36</td>
</tr>
<tr>
<td>EMERG</td>
<td>41</td>
</tr>
<tr>
<td>5 WEST</td>
<td>45</td>
</tr>
<tr>
<td>6 WEST</td>
<td>45</td>
</tr>
<tr>
<td>PEDS</td>
<td>49</td>
</tr>
<tr>
<td>GERI</td>
<td>49</td>
</tr>
<tr>
<td>DIALYSIS</td>
<td>51</td>
</tr>
<tr>
<td>PERIOP</td>
<td>52</td>
</tr>
<tr>
<td>PHARM</td>
<td>55</td>
</tr>
<tr>
<td>3 WEST</td>
<td>62</td>
</tr>
<tr>
<td>ICU</td>
<td>62</td>
</tr>
<tr>
<td>NICU</td>
<td>73</td>
</tr>
<tr>
<td>SICU</td>
<td>75</td>
</tr>
<tr>
<td>PEDS</td>
<td>80</td>
</tr>
<tr>
<td>OB</td>
<td>98</td>
</tr>
</tbody>
</table>

Employee Satisfaction

- CCU: 55
- REHAB: 91

Employee Injury per 1000 days

- CCU: 16
- REHAB: 0.1

Employee Absenteeism per 1000 days

- CCU: 15
- REHAB: 10

RN Vacancy Rate

- CCU: 9
- REHAB: 1

Illustrative Data: Extracted from Blinded Client Data
Senior Leadership

**GENERATIVE**
Organization wired for safety and improvement

**PROACTIVE**
Playing offense - thinking ahead, anticipating, solving problems

**SYSTEMATIC**
Systems in place to manage hazards

**REACTIVE**
Playing defense – reacting to events

**UNMINDFUL**
No awareness of safety culture

Cyclic flow of information with feedback and organizational learning

Systematic engagement with dialogue, support and learning

Process for interaction between senior leaders and front line staff

They’re here – something bad must have happened

We don’t know or see them
Michigan: Leadership and Culture

Providing feedback following Leadership WalkRounds is associated with better patient safety culture, higher employee engagement and lower burnout. J. Bryan Sexton, Kathryn C. Adair, Michael W. Leonard, Terri Christensen Frankel, Joshua Proulx, Sam R. Watson, Brittany Bogan, Maleek Jamal, Rene Schwendimann, Allan S. Frankel.

Michigan SCORE Data, with and without Closing the Loop
## Local Leadership

<table>
<thead>
<tr>
<th>GENERATIVE</th>
<th>Organization wired for safety and improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROACTIVE</td>
<td>Playing offense - thinking ahead, anticipating, solving problems</td>
</tr>
<tr>
<td>SYSTEMATIC</td>
<td>Systems in place to manage hazards</td>
</tr>
<tr>
<td>REACTIVE</td>
<td>Playing defense – reacting to events</td>
</tr>
<tr>
<td>UNMINDFUL</td>
<td>No awareness of safety culture</td>
</tr>
</tbody>
</table>

Leaders create high degrees of psych safety and accountability.

Leaders model the desired behaviors to drive culture of safety.

Training and support exists for building clinical leadership.

Episodic, completely dependent on the individual clinician.

Absent for the most part.
Local Leadership

- Availability
- Feedback
- Trust
- Relationship

Percentage of positive responses.
Local Leadership

- Lack of voice
- No feedback
- Little trust
- Nothing gets fixed, don’t have the tools

Percentage of positive responses.
In this work setting, local leadership provides meaningful feedback to people about their performance.

Source Data: June 2016
Disagreements in this work setting are appropriately resolved (i.e., not who is right but what is best for the patient).

Communication breakdowns are **NOT** common in this work setting.

Dealing with difficult colleagues is **NOT** consistently a challenging part of my job.

In this work setting, it is **NOT** difficult to speak up if I perceive a problem with patient care.

Communication breakdowns are **NOT** common when this work setting interacts with other work settings.

It is easy for personnel here to ask questions when there is something that they do not understand.

The people here from different disciplines backgrounds work together as a well coordinated team.
Teams

**What Teams Do:**

- Plan Forward
- Reflect Back
- Communicate Clearly
- Manage Conflict

The associated behaviors:

- Brief (huddle, pause, timeout, check-in)
- Debrief
- Structured Communication SBAR and Repeat-Back
- Critical Language
"A fair amount of the doctors are bullies. There are no sort of reprimands for them if they demean or act cruelly to the staff. In my 60 day orientation I watched a video about workplace bullying that describes their actions perfectly."

We work very hard on working with each other and being a family. We pride ourselves every time someone comes in and says "wow everyone is so happy here".
Psychological Safety

**GENERATIVE**
HRO - wired for safety and

**PROACTIVE**
Playing offense - anticipating,

**SYSTEMATIC**
Systems in place to manage hazards

**REACTIVE**
Playing defense – reacting to events

**UNMINDFUL**
No awareness of safety culture

---

Primary responsibility of leaders, continuously modeled everywhere.

Leaders model and expect the behaviors that promote psychological safety

In some units it feels safe to speak up and voice a concern

Personality dependent – it depends who I’m working with

Fear based – keep your head down and stay out of trouble
In this work setting, it is not difficult to speak up if I perceive a problem with patient care.

Hospital unit level data

The white space is opportunity and avoidable risk
In this work setting, it is not difficult to speak up if I perceive a problem with patient care.

Source Data: June 2016
Psychological Safety

What are the things that make it hard to speak up here?

What are the 1-2 things we can do to make it better? Describe them in a way that they are actionable, visible and measureable.
Just Culture

GENERATIVE
Organization wired for safety and improvement

PROACTIVE
Playing offense - thinking ahead, anticipating, solving problems

SYSTEMATIC
Systems in place to manage hazards

REACTIVE
Playing defense – reacting to events

UNMINDFUL
No awareness of safety culture

Real events are shared by leaders, true culture of accountability and learning

Clear ways to differentiate individual v. system error, safe to discuss mistakes

Well understood algorithm, learning is the priority

Depends who the boss is, blame and punishment are common

Nothing good will come from talking about mistakes
What Happens If You Make An Error?

In this work setting, it is difficult to discuss errors.

Note: Use the multicolored bars to see how you fit with the benchmark archive. If you have less red and more green than the benchmark, you are more positive than the benchmark. If the colors all match up, you are about the same as the benchmark.
Just Culture

Malicious

Impaired

Unintentional – Risky – Reckless

Substitution Test

History of Unsafe Acts
Event or Near Event Step 1: Identify participants, and exclude those impaired judgment or whose actions might be malicious. If impaired judgment refer to senior leaders and HR department. If malicious, refer to Risk and HR departments. The care provider’s behavior is accountable in any way, perform Professional Behavior Evaluation.

Step 2: Assign initial level of intent; use best judgment to categorize each action as either Reckless, Risky or Unintentional. The categorization determines the general level of culpability and any resulting actions, however these general categories must be modified using Steps 3 and 4 below.

Step 3: Evaluate systems influences to modify level of intent by performing a Substitution Test: Ask 3 others with similar skills if they, in a similar situation, would behave or act similarly. If the answer is “No” the test is negative and the individual is likely accountable. If the answer is “Yes” the system influence is likely substantial. Evaluators may ask about system factors such as schedules leading inevitably to fatigue, unrealistic expectations regarding performance, training, or other factors. The decision appears to be self-serving and to have been made with little or no concern about risk.

Step 4: Evaluate the individual for a history of unsafe acts: Evaluate whether the individual has a history of unsafe or problematic acts. If they did influence decisions about the appropriate responsibilities for the individual i.e. they may be in the wrong job. Organizations should have a reasonable and agreed upon statute of limitations for taking these actions into account.

Step 5: Final evaluation: RECKLESS: If the Substitution Test is positive, the system supports reckless behavior and system leaders are accountable. The care provider’s behavior is unsafe; they are accountable warranting discipline. A history of unsafe behavior may suggest the individual is in the wrong job.

RISKY: If the Substitution Test is positive, the system supports risky behavior and system leaders are accountable. The care provider’s behavior is potentially unsafe; their evaluation of their system risks appears to be erroneous.

UNINTENTIONAL: If the Substitution Test is positive, the system supports potentially unsafe behavior, the individual is in the wrong job.

Step 6: Promote learning and improvement The care provider should participate in teaching the lessons learned to others.

Professional Behavior Evaluation and Intervention

Step 1: Conduct confidential conversation with reporter regarding Focus Person (FP) behaviors. Categorize types of behaviors as well as frequency and severity. Conduct confidential interviews with others.

Step 2: Feedback Conversation Coaching: If the concern is deemed isolated incident, the FP has not had any other issues, and the reporter feels safe to do so, provide coaching for the reporter on how to give the FP direct feedback regarding behaviors. If the situation is more complex, proceed to Step 3.

Step 3: Assessing Concerns: To validate the concerns and assess their frequency and severity, conduct multi-source interviews to provide comprehensive insights into, and corroboration of, alleged behavior.

Step 4: Involve Supervisor: Share findings of assessment with FP’s manager, department chair, division chief, or supervising physician. Discuss a plan for feedback intervention (Step 5) if deemed necessary.

Step 5: Feedback Intervention involved Supervisor and professionalism representative meet with FP to discuss/ review:

- specific disruptive behaviors
- FP’s perspective (including systems) that may be contributing to the behavior
- resources for facilitating behavioral changes
- plans for monitoring behavior
- effectiveness of behavioral changes
- (if applicable) potential consequences for not adhering to behavioral expectations

A follow up email is sent to the FP summarizing the meeting.

Step 6: Monitoring and Support

- Inform those reporting concerns that an intervention has occurred.
- Inquire of them and others involving regulatory agencies.
- Have FP’s supervisor address any systems issues discussed in Step 5.

- Keep process discrete and respectful to FP.

Step 7: Intervention to Address Subsequent Lapses

Develop a plan of action with institutional administration and legal counsel. Selected institutional administrators meet with FP to detail expected behavioral changes and consequences, including termination.

Final Step: Evaluate the individual for a history of unsafe acts. If they do, this may influence decisions about the appropriate responsibilities for the individual i.e. they may be in the wrong job. Organizations should have a reasonable and agreed upon statute of limitations for taking these actions into account.
Drift = Risk

100% Agreement - Not OK

Usual Space Of Action
‘Illegal normal’
Real Life standards
60-90%

100%
Expected safe space of action as defined by professional standards

Safety Reg’s & good practices, accreditation standards

100% Expected safe space of action as defined by professional standards

Very Unsafe Space

Agreement
Not OK

High Individual Benefits

Low Individual Benefits

Very Unsafe Space

HIGH Production Performance LOW

Attribution: Dr. Rene Amalberti

Tait D. Shanafelt, MD; Omar Hasan, MBBS, MPH; Lotte N. Dyrbye, MD, MHPE; Christine Sinsky, MD; Daniel Satele, MS; Jeff Sloan, PhD; and Colin P. West, MD, PhD

Abstract

Objective: To evaluate the prevalence of burnout and satisfaction with work-life balance in physicians and US workers in 2014 relative to 2011.

Patients and Methods: From August 28, 2014, to October 6, 2014, we surveyed both US physicians and a probability-based sample of the general US population using the methods and measures used in our 2011 study. Burnout was measured using validated metrics, and satisfaction with work-life balance was assessed using standard tools.

Results: Of the 35,922 physicians who received an invitation to participate, 6880 (19.2%) completed surveys. When assessed using the Maslach Burnout Inventory, 54.4% (n=3680) of the physicians reported at least 1 symptom of burnout in 2014 compared with 45.5% (n=3310) in 2011 (P<.001). Satisfaction with work-life balance also declined in physicians between 2011 and 2014 (48.5% vs 40.9%; P<.001). Substantial differences in rates of burnout and satisfaction with work-life balance were observed by specialty. In contrast to the trends in physicians, minimal changes in burnout or satisfaction with work-life balance were observed between 2011 and 2014 in probability-based samples of working US adults, resulting in an increasing disparity in burnout and satisfaction with work-life balance in physicians relative to the general US working population. After pooled multivariate analysis adjusting for age, sex, relationship status, and hours worked per week, physicians remained at an increased risk of burnout (odds ratio, 1.97; 95% CI, 1.80-2.16; P<.001) and were less likely to be satisfied with work-life balance (odds ratio, 0.68; 95% CI, 0.62-0.75; P<.001).

Conclusion: Burnout and satisfaction with work-life balance in US physicians worsened from 2011 to 2014. More than half of US physicians are now experiencing professional burnout.
Burnout Item – SCORE Survey

People in this work setting are burned out from their work.

Note: Lower is better

25th: 55% 50th: 48% 75th: 40%

Percent Negative Percentiles
n = 162319 responses
From 106 hospitals/facilities
Influencing Factors in Burnout / Resilience

• Do I feel valued by the organization?
• Do I have a voice?
• Do I feel supported in the work I do?
• Do I have the tools and resources to do my job?
Professionalism

Do you have issues of unprofessional behavior in your facility?

Is there confidence that the behavior will be addressed and resolved when reported?

Is there one standard or set of rules that applies to everyone, regardless of job title?
The Aim:

Hierarchy of *Responsibility*

No Hierarchy of *Respect*

Jo Shapiro MD, BWH
“Behaviors that undermine a culture of safety”

- Verbal or physical threats
- Intimidation
- Reluctance/refusal to answer questions, refusal to answer pages or calls
- Impatience with questions
- Condescending language or intonation

Jo Shapiro MD, BWH
Leaders of medical institutions are responsible for creating environments in which physicians, scientists, and other health care professionals are able to sustain their deep capacity for high-quality, compassionate care. Creating such environments depends on supporting a culture of trust, which has been identified as the core of successful leadership.¹⁻³

The mission statements of both academic and community-based medical centers and hospitals characteristically reflect high aspirations for excellence in patient care. Yet, despite significant resources directed toward improving the delivery of health care, the rate of preventable and iatrogenic patient injuries has not improved significantly.⁴⁻⁵ Although a number of reasons have been cited for this lack of progress,⁶⁻⁷ there is growing recognition that an environment in which professionalism is not embraced, or where expectations of acceptable behaviors are not clear and enforced, can result in medical errors, adverse events, and unsafe work conditions.

Methods: The Center for Professionalism and Peer Support (CPPS) was created in 2008 at Brigham and Women's Hospital (BWH), Boston, to educate the hospital community regarding professionalism and manage unprofessional behavior. CPPS includes the professionalism initiative, a disclosure and apology process, peer and defendant support programs, and wellness programs. Leadership support, establishing be-
Learning Systems

Build organizational trust through identifying and resolving defects

Make learning visible – feedback is key

This requires ownership and infrastructure

Always move toward higher order problem solving
Learning Environment

Is input well received?

Can we integrate best practices from other units?

Can we identify and fix defects?
In this work setting, the learning environment effectively fixes defects to improve the quality of what we do.

“When we surface a problem, it is addressed and resolved. We’re able to fix lots of things”

“In my 22 years here, I don’t think they have ever acted on an issue we brought forth”
Learning boards capture ideas and issues from everyone

ANALOG: proven results

DIGITAL: available everywhere on any device.
ICU Percent of Patients Receiving all Four Aspects Of Ventilator Bundle

- Marked beds at 30 degree angle
- Fact Sheet for staff education
- Poster with weekly data feedback
- Vent bundle posted in all vent patient rooms
- Began initial trials of Daily goal sheet and pre extubation sheet
- Initiated Powerpoint education for RT/RN
- Initiated Clinical Pharm rounds
- 1st test of multidisciplinary rounds
- Expanded use of Pre extubation sheet
- Staff education on Goal sheet; mini inservices on unit on SBT and Pre extubation sheet
- Incorporated Goal Sheet into Multidisciplinary Rounds
- Impact Extravaganza (staff/MD education)
- Expanded multidisciplinary rounds to include additional disciplines
- Check compliance on night shift past 2 weeks
- New sign at HOB
- One on one follow up by Nursing & RT managers on collaboration in weaning process
MultiEntity TEST Congenital Cardio Vascular Care Unit Issues and Ideas

Huddle Agenda (A)

I'd like to add a voice to text issue to this board.

Identified

- Test issue
- Test issues #2
- Didn't know the patient was going off the floor for a procedure until the team arrived to take the patient, patient wasn't ready
- Sometimes it is hard to know who the covering physician is and be able to reach them.
- IPASS is used variably by the house staff during sign outs/handoffs
- Identified a problem with pumps on unit

In Process

- Chlorhexadine not in kit, had to get it from stock
- CL insertion kits ran out last night, we had to get them from another unit
- Often all members on the care team don't clearly know the plan
- When children go between units, their IV solutions get changed as the standard unit solutions are different
- Ran out of central line maintenance kits in ICU, had to go to another unit to get them last night. ML

Completed

- 2 times this week we ran out of infusion pump tubing, and had to borrow it from other units
- The light in the back hallway is out
- No exam gloves west supply room. Michael
- Patient in 923 didn't get breakfast for 2nd day in a row - Michael
- Identified a problem with pumps on unit

Payroll Issues (#pay)

- Worked overtime last pay period. Not reflected on paycheck, nurse manager reconciling this
- 3 straight pay periods without a problem - that's a winner.
- Charge Nurses Day - Susanna / Night - Giovanna

3 Good Things

- Sue and John worked really well together on a really sick child. Great outcome, happy family!
- Sandra got a Safety Star for getting rapid response team for deteriorating patient. Good outcome and potential problem avoided. A very good thing!!
- Dr. Ben bought pizza to acknowledge all the good work we have been doing. Excellent - good to feel valued.
- Dr. P spent a lot of time with a family that was struggling with a very difficult situation - made a huge difference.
- Sarah and Julie stayed to help out last night when we were short handed and had very sick admissions - made a huge difference - proud to be part of this great team.
Connecting on key topics, during and between huddles
Putting it all together

- Effective Leadership – present, learning, providing feedback, building trust
- Culture – clearly defined behaviors that support teamwork, collaboration and patient centered care
- Learning systems – units that plan forward/ reflect back, capture issues and defects for resolutions, and have clear aims to improve - cultural, operational, clinical
Thank You

michael@safearandreliablecare.com