Sharing our strengths

J. Bryan Sexton, PhD
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Director, Duke Patient Safety Center
Duke University Health System
Safety Culture Eats Strategy for Lunch:
The Intersection of Quality, Stress and Fatigue in a Clinical Area Near You...

J. Bryan Sexton, PhD
Associate Professor, Department of Psychiatry
Director, Duke Patient Safety Center, Duke University Health System
The Co-morbidities of Good Safety Culture

Non-negotiable respect for every person, in every interaction, every day
Staff surface solutions, rather than problems
Autonomy over responsibilities
Mastery of skills
Purpose: “this is my calling”
Well rested healthcare workers
Creativity and innovation flourish
Resilience and self-care is the norm
Trust in leadership, colleagues, and the “system”
The Co-morbidities of Poor Safety Culture

Horrible Handoffs
Toxic Work Environments
Caregiver Burnout/Depression
Caregiver Self Injury
Disruptive Behavior
Staff Turnover
Patient Harm
Defensive and Distrustful Staff
Repeat Sentinel Events
Innovation Fatigue
Loss of Sense of Purpose/Meaning
What is in your toolbox (for clearing away debris)?

• Psychological Safety
• Executive Partnerships
• Learning from Defects
• Resilience Role Models
• Actionable Data
  – Teamwork Tools (critical language, briefings, SBAR, daily goals, DESC SCRIPT)
  – Safety Tools (CUSP, Learning From Defects, Executive Partnerships)
Confidence vs. Accuracy
Basic Findings

• In general, we don’t know ourselves very well
• We tend to be very confident of our ratings
• There is no link between confidence and accuracy
• Most people rate themselves as “above average”
• The worst performers are the most inaccurate
Confidence and Accuracy are aligned:

- Athletics
- Punctuality
- Neatness
Confidence and Accuracy are not aligned:

- Skills
- Knowledge
- Personality
- Predictions about:
  - how we will behave in the future
  - how long something will take to complete
  - likelihood of desirable events in our lives
In Medicine

• Family practice residents: Self-rated skill in interviewing pts and soliciting relevant health information found a 0.3 correlation with instructor ratings
• Self-ratings don’t correlate with board scores
  – Surgical Residents
  – Medical Students
• RN knowledge of basic life-support tasks not related to their confidence in that knowledge
• Doctors diagnosing pts with pneumonia report an 88% confidence, correct 20% of the time
Problems with Training Style

• Massed versus spaced training
  – Massed training produces high short-term retention, but poor long-term competence.
  – Massed training tricks us into thinking we know something well (…Orientation)
Culture of Safety 101

• **Important**: Frontline Assessment of Care Delivery Context; linked to outcomes
• Reliably **measurable** using published methods
• Allows leaders to **triage** units in need
• **Responsive** to interventions
• Culture is meaningful at the unit level – hospital level results mask variability unless you start at unit level and aggregate to the hospital level
Attitudes that predict cockpit performance:

- Maintain awareness of other crew members, their problems, and their workload
- Value input from other crew members
- Adjust interaction styles to different crew members
- Acknowledge vulnerability to stress, both physical and psychological

- The performance of 95.7% of the pilots was correctly classified by the analysis of attitudes

Stress Recognition

• The realistic acknowledgement of human limitations, and how issues such as fatigue, production pressures, inexperience, and working in hostile environments impact performance

<table>
<thead>
<tr>
<th>Item description</th>
<th>Anaesthetic</th>
<th>Surgical</th>
<th>Intensive care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nurse (n=162)</td>
<td>Resident (n=60)</td>
<td>Consultant (n=104)</td>
</tr>
<tr>
<td>Even when fatigued, I perform effectively during critical phases of operations/patient care</td>
<td>Agree 89 (55) 34 (57) 49 (47)</td>
<td>105 (60) 29 (56) 117 (70)</td>
<td>70 (64) 20 (64) 1965 (26)</td>
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<td></td>
<td>Neutral 36 (22) 6 (10) 16 (15)</td>
<td>30 (17) 6 (11) 20 (12)</td>
<td>6 (6) 4 (13) 756 (10)</td>
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<td></td>
<td>Disagree 37 (23) 20 (33) 39 (38)</td>
<td>40 (23) 17 (33) 30 (18)</td>
<td>33 (30) 7 (23) 4837 (64)</td>
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<tr>
<td>A truly professional team member can leave personal problems behind when working in the operating room/intensive care unit</td>
<td>Agree 96 (59) 33 (55) 55 (53)</td>
<td>122 (70) 33 (63) 137 (82)</td>
<td>76 (70) 21 (68) 4005 (53)</td>
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<tr>
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<td>Neutral 24 (15) 8 (13) 10 (10)</td>
<td>16 (9) 5 (10) 17 (10)</td>
<td>11 (10) 7 (22) 680 (9)</td>
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<tr>
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<td>Disagree 42 (26) 19 (32) 38 (37)</td>
<td>37 (21) 14 (27) 13 (8)</td>
<td>22 (20) 3 (10) 2872 (38)</td>
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<tr>
<td>My decision making ability is as good in medical emergencies as in routine situations</td>
<td>Agree 91 (56) 37 (61) 70 (67)</td>
<td>126 (72) 30 (58) 127 (76)</td>
<td>91 (84) 28 (90) 4837 (64)</td>
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<td>Neutral 49 (30) 10 (17) 10 (10)</td>
<td>33 (19) 12 (23) 22 (13)</td>
<td>6 (5) 0 907 (12)</td>
</tr>
<tr>
<td></td>
<td>Disagree 23 (14) 13 (22) 24 (23)</td>
<td>16 (9) 10 (19) 18 (11)</td>
<td>12 (11) 3 (10) 1814 (24)</td>
</tr>
<tr>
<td>Junior team members should not question the decisions made by senior team members</td>
<td>Agree 21 (13) 9 (15) 17 (16)</td>
<td>24 (14) 11 (21) 40 (24)</td>
<td>2 (2) 1 (3) 151 (2)</td>
</tr>
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<td>Neutral 27 (17) 8 (13) 10 (10)</td>
<td>30 (17) 11 (21) 35 (21)</td>
<td>4 (4) 1 (3) 76 (1)</td>
</tr>
<tr>
<td></td>
<td>Disagree 113 (70) 43 (72) 87 (84)</td>
<td>121 (69) 30 (58) 92 (55)</td>
<td>102 (94) 29 (94) 7331 (97)</td>
</tr>
</tbody>
</table>
“Fatigue impairs my performance in emergency situations.”

Stress Recognition (Threat Radar) Lessons Learned

- High scoring units are more aware of threats to safety
- High scoring units have staff that submit sophisticated incident reports (not “Mark is an idiot,” but rather “here is where we need to eliminate the problem to prevent recurrence.”)
- Low scoring units have teamwork and safety results that are questionable
- Low scoring units are vulnerable to repeat sentinel events
- Overall, this domain is more responsive to awareness/training than teamwork and safety climate
Stress Comes from Things you cannot Predict and/or Control

“Stress can wreak havoc with your metabolism, raise your blood pressure, burst your white blood cells, make you flatulent, ruin your sex life, and if that is not enough, possibly damage your brain.”

--Dr. Robert Sapolsky, Professor of Biological Sciences and Neuroscience at Stanford University
Stress: Things you cannot Predict and/or Control

Chaos, Culture, and Predictability

Improve predictability = less chaos = better safety
- standardized interactions, checklists, familiarity

Reduce predictability = more chaos = worse safety
- new manager, new location, new technology
Association of Interruptions With an Increased Risk and Severity of Medication Administration Errors

Johanna I. Westbrook, PhD; Amanda Woods, RN, MEd; Marilyn I. Rob, PhD; William T. M. Dunsmuir, PhD; Richard O. Day, MD

Background: Interruptions have been implicated as a cause of clinical errors, yet, to our knowledge, no empirical studies of this relationship exist. We tested the hypothesis that interruptions during medication administration increase errors.

Methods: We performed an observational study of nurses preparing and administering medications in 6 wards at 2 major teaching hospitals in Sydney, Australia. Procedural failures and interruptions were recorded during direct observation. Clinical errors were identified by comparing observational data with patients’ medication charts. A volunteer sample of 98 nurses (representing a participation rate of 82%) were observed preparing and administering 4271 medications to 720 patients over 505 hours from September 2006 through March 2008. Associations between procedural failures (10 indicators; eg, aseptic technique) and clinical errors (12 indicators; eg, wrong dose) and interruptions, and between interruptions and potential severity of failures and errors, were the main outcome measures.

Results: Each interruption was associated with a 12.1% increase in procedural failures and a 12.7% increase in clinical errors. The association between interruptions and clinical errors was independent of hospital and nurse characteristics. Interruptions occurred in 53.1% of administrations (95% confidence interval [CI], 51.6%-54.6%). Of total drug administrations, 74.4% (n=3177) had at least 1 procedural failure (95% CI, 73.1%-75.7%). Administrations with no interruptions (n=2005) had a procedural failure rate of 69.6% (n=1395; 95% CI, 67.6%-71.6%), which increased to 84.6% (n=148; 95% CI, 79.2%-89.9%) with 3 interruptions. Overall, 25.0% (n=1067; 95% CI, 23.7%-26.3%) of administrations had at least 1 clinical error. Those with no interruptions had a rate of 25.3% (n=507; 95% CI, 23.4%-27.2%), whereas those with 3 interruptions had a rate of 38.9% (n=68; 95% CI, 31.6%-46.1%). Nurse experience provided no protection against making a clinical error and was associated with higher procedural failure rates. Error severity increased with interruption frequency. Without interruption, the estimated risk of a major error was 2.3%; with 4 interruptions this risk doubled to 4.7% (95% CI, 2.9%-7.4%; P < .001).

Conclusion: Among nurses at 2 hospitals, the occurrence and frequency of interruptions were significantly associated with the incidence of procedural failures and clinical errors.

Arch Intern Med. 2010;170(8):683-690
Familiarity: the path to predictability
Familiarity with others is a critical component of effective teamwork:

• 74% of all commercial aviation accidents happen on the first day of a crew flying together
• Familiarity trumps fatigue (simulator studies)
• Highlights the importance of predictable patterns of behavior
• Many teamwork tools, e.g., briefings are a proxy for familiarity

NTSB Report Number: SS--94-01, 1994
“I know the first and last names of all the personnel I worked with during my last shift.”

Know thy colleague...

890 Ascension Health clinical areas
Quality improvement is lonely.

Healthcare has become over-reliant on threatening caregivers to get them to do more.

Your resilience will only be reliably protected and enhanced by what you do.
Redefining Quality

• How we take care of our patients
• How we take care of each other
• How we take care of ourselves
Teamwork Climate across 890 Ascension Health Clinical Clinical Areas

% of respondents reporting positive teamwork climate

< 60% = Problems with Turnover, Burnout, Fatigue, Depression, Self Care

A primary factor in resilience is having caring and supportive relationships within and outside the family.

Relationships that create love and trust, provide role models, and offer encouragement and reassurance help bolster a person's resilience.
The Problem: unprocessed emotional upheaval taxes caregiver resilience

- Interpersonal Conflicts: work with a jerk, poor communication, gossip, being judged
  - Conflicts with others: “don’t understand,” “don’t show respect”, “poor pain mgmt”
- Bedside stress: prolonging life too long, “torturing” patients, end of life issues, dealing with suffering, death, dying
- Staffing, workload problems, “too many hats”
If you are going through hell, keep going!

Winston Churchill:
British Prime Minister,
Nobel Prize in Literature
Interpersonal Stress & the Common Cold

Cohen's Common Cold Study
Participants completed stress index and were given nasal drops of a cold virus and observed for a week in a controlled environment. Higher stress index scores = greater the probability of catching a cold.

CAVEAT ON STRESS: it has to last at least a month and stem from interpersonal troubles like marital strife or enduring job-related problems.

Figure 2. Observed Association between the Psychological-Stress Index and the Rate of Infection and the Association Adjusted for Standard Control Variables. Only the 394 subjects who received virus are included.

Who gets sick after inoculation with a cold virus?

Friends are better than chicken noodle soup....

Social Network Index: how many different relationship types do you maintain at least once every two weeks: spouse, parents, children, workmates, friends, neighbors, etc. (up to 12 types)


Source: J. Bryan Sexton, PhD
The Second Victim of Harm: Example of impact on critical care nurses

- half are emotionally exhausted (burned out)
- 2 out of 3 have difficulty sleeping
- 1 out of 4 are clinically depressed

Chasing “Happy”
Suprachiasmatic Nucleus: regulates daily sleep/wake patterns using signals from nature like natural sunlight and dusk to know when to tell us to wake up and go to sleep.


Fooling the Suprachiasmatic Nucleus

Not enough sunlight
Artificial lights
Eating at the wrong times
Eating food that upsets the rhythm of our genes
Exercising way too fast (or not at all)
Rarely experiencing nature’s rhythms
Helping the Suprachiasmatic Nucleus

natural light
appropriate exercise
exposure to nature
the right supplements
good food at the correct time
relaxation and sleep

- nightly rituals, dark rooms, limit stimulation, no reading or tv in bed
Food

• Eat food, not food products, mostly plants, not too much

• Breakfast: fats and proteins
• Lunch: fruits and vegetables
• Dinner: carbs
Learning never exhausts the mind.

Leonardo da Vinci; Painter, Scientist & Writer
Duncker's (1945) classic candle problem

• Attach a lighted, vertical candle to the wall, without wax dripping on the floor.


• Example courtesy Andrew Knight, PhD, Washington University in St Louis.
Instead of a box, you see a shelf…

10% succeeded


• Example courtesy Andrew Knight, PhD, Washington University in St Louis.
Mindfulness

“Mindfulness is a flexible state of mind in which we are actively engaged in the present, noticing new things and sensitive to context.”

(Langer, 1998)
If you want to get across an idea, wrap it up in person.

Ralph Bunche; Political Scientist & Diplomat
## Mindful Learning (Ellen Langer)

<table>
<thead>
<tr>
<th>Mindful</th>
<th>Mindless</th>
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</thead>
<tbody>
<tr>
<td>Actively engaged in present</td>
<td>Automatons</td>
</tr>
<tr>
<td>Aware of context and multiple perspectives</td>
<td>Stuck in a rigid perspective</td>
</tr>
<tr>
<td>Drawing new distinctions</td>
<td>Rely on distinctions made in the past.</td>
</tr>
<tr>
<td><em>Guided by rules and routines</em></td>
<td>Governed by rules and routines.</td>
</tr>
</tbody>
</table>

- *Mindful* is actively engaged in the present, aware of context and multiple perspectives, drawing new distinctions, and *guided by rules and routines*.
- *Mindless* is automatons, stuck in a rigid perspective, relying on distinctions made in the past, and *governed by rules and routines*. 
Mindful (-vs.- Mindless)

• Feel more in control
• Live longer
• Better performance
• Happier
  – “anti-venom” for burnout

Langer, 1998 & 1989
Learning from 1 Defect / Month

• Pick a Defect
• Answer
  – What happened?
  – Why did it happen?
  – What can we do to reduce the risk of it recurring (esp. with different caregivers)?
  – How will we know risks were reduced?
  – With whom should we share lessons learned?

ADAPTED FROM:
-and-
Learning from Defects

What happened (Brief defect description)?

Why did it happen (what factors contributed +&-): System factors, e.g.: staffing, workload, equipment, production pressure, other departments, caregiver factors (training/fatigue/attitude), management support, physical environment (space/noise), failure of policy/procedure, patient condition (complexity/language)

What can we do to reduce the risk of it recurring with different caregivers?

How will we know the risk was reduced?

With whom should we share our learning?

Learning from Defects Fast Facts

What do I need to know?
Purpose of learning from defects in a structured way is to help this clinical area “learn how” to operationalize best practices so that they solve problems while building capacity to improve quality in the future.

What do I need to do?
Use brief (30-60min) defect learning discussions to explore & resolve system factors involved in the defect. Focus discussion on specific actions to reduce the likelihood of defect recurrence.

What should I be worried about?
Protected time to discuss monthly or in response to an event in the unit, meet in a safe place for open discussion, try to keep group size to 5 or fewer if possible.

ADAPT FROM:
Notice the little things to regain a sense of control and joy...

-Ellen Langer, 2010
Improving Norms of Patient Safety: Safety Climate Items Responsive to Interventions

“The culture in this clinical area makes it easy to learn from the errors of others.”
“I am encouraged by my colleagues to report any patient safety concerns I may have.”
“I know the proper channels to direct questions regarding patient safety in this clinical area.”


Patient Safety as a System

- Accept that we will make mistakes
- Focus on systems rather than blame
- Focus on patient harm rather than error
- Create clear goals, ask questions early
- Standardize, create independent checks, and learn from mistakes
  - Changing situations is more effective than trying to change human nature
Mindfully Learning from Defects

- Monthly (to be sustainable)
- Hybrid of RCA and Debriefing for “less than Sentinel” events
  - Structure keeps glitches on the radar for improvement
- Local ownership for quality
- Improve patient safety norms:
  - Learning from errors of others
  - Encouraged to participate in patient safety
  - Know the channels to direct questions
- Reliability through resilience, not at the expense of it

More resources at: www.dukepatientsafetycenter.com
It always seems impossible until its done.

Nelson Mandela;
The 9th President of South Africa
Association of an Educational Program in Mindful Communication With Burnout, Empathy, and Attitudes Among Primary Care Physicians

Michael S. Krasner, MD
Ronald M. Epstein, MD
Howard Beckman, MD
Anthony L. Suchman, MD, MA
Benjamin Chapman, PhD
Christopher J. Mooney, MA
Timothy E. Quill, MD

Context Primary care physicians report high levels of distress, which is linked to burnout, attrition, and poorer quality of care. Programs to reduce burnout before it results in impairment are rare; data on these programs are scarce.

Objective To determine whether an intensive educational program in mindfulness, communication, and self-awareness is associated with improvement in primary care physicians’ well-being, psychological distress, burnout, and capacity for relating to patients.

Design, Setting, and Participants Before-and-after study of 70 primary care physicians in Rochester, New York, in a continuing medical education (CME) course in 2007-2008. The course included mindfulness meditation, self-awareness exercises, narratives about meaningful clinical experiences, appreciative interviews, didactic material, and discussion. An 8-week intensive phase (2.5 h/wk, 7-hour retreat) was followed by a 10-month maintenance phase (2.5 h/mo).

Main Outcome Measures Mindfulness (2 subscales), burnout (3 subscales), empathy (3 subscales), psychosocial orientation, personality (5 factors), and mood (6 subscales) measured at baseline and at 2, 12, and 15 months.

Results Over the course of the program and follow-up, participants demonstrated improvements in mindfulness (raw score, 45.2 to 54.1; raw score change [Δ], 8.9; 95%
<table>
<thead>
<tr>
<th>Subscale</th>
<th>Baseline</th>
<th>Preintervention</th>
<th>8 Week</th>
<th>12 Month</th>
<th>15 Month</th>
<th>Standardized Mean Difference of Change From Baseline to 15 mo (95% CI)</th>
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<tbody>
<tr>
<td><strong>Maslach Burnout Scale</strong></td>
<td></td>
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<tr>
<td>Emotional exhaustion</td>
<td>26.8 (24.1 to 29.6)</td>
<td>27.8 (25.1 to 30.5)</td>
<td>23.7 (21.0 to 26.5)</td>
<td>20.0 (17.2 to 22.8)</td>
<td>20.0 (17.2 to 22.9)</td>
<td>0.62 (0.42 to 0.82)</td>
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<td>P value</td>
<td>.34</td>
<td>.003 C</td>
<td>&lt;.001 C</td>
<td>&lt;.001 C</td>
<td>&lt;.001 C</td>
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<tr>
<td><strong>Depersonalization</strong></td>
<td>8.4 (7.1 to 9.7)</td>
<td>8.6 (7.3 to 9.9)</td>
<td>7.6 (6.3 to 8.9)</td>
<td>5.9 (4.5 to 7.2)</td>
<td>5.9 (4.5 to 7.2)</td>
<td>0.45 (0.24 to 0.66)</td>
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<td>.15</td>
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<td>&lt;.001 C</td>
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<tr>
<td><strong>Personal accomplishment</strong></td>
<td>40.2 (38.9 to 41.6)</td>
<td>41.2 (39.8 to 42.5)</td>
<td>42.0 (40.6 to 43.4)</td>
<td>42.7 (41.3 to 44.1)</td>
<td>42.6 (41.2 to 44.1)</td>
<td>0.44 (0.19 to 0.68)</td>
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<td>&lt;.001 C</td>
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<td><strong>Jefferson Scale of Physician Empathy</strong></td>
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<td>Total empathy</td>
<td>116.6 (114.2 to 118.9)</td>
<td>117.2 (114.9 to 119.5)</td>
<td>120.6 (118.2 to 123.0)</td>
<td>121.4 (119.0 to 123.8)</td>
<td>121.2 (118.7 to 123.8)</td>
<td>0.45 (0.24 to 0.66)</td>
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<td>&lt;.001 C</td>
<td>&lt;.001 C</td>
<td>&lt;.001 C</td>
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<td>Compassionate care</td>
<td>48.6 (47.5 to 49.7)</td>
<td>49.2 (48.2 to 50.3)</td>
<td>49.8 (48.7 to 50.9)</td>
<td>50.4 (49.3 to 51.5)</td>
<td>50.0 (48.8 to 51.1)</td>
<td>0.30 (0.04 to 0.57)</td>
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<td>P value</td>
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<td>.003 C</td>
<td>.02</td>
<td>.003 C</td>
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<td>Perspective taking</td>
<td>57.1 (55.6 to 58.6)</td>
<td>57.1 (55.7 to 58.6)</td>
<td>59.1 (57.6 to 60.6)</td>
<td>59.7 (58.2 to 61.2)</td>
<td>59.5 (58.0 to 61.1)</td>
<td>0.38 (0.16 to 0.60)</td>
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<td>.001 C</td>
<td>.003 C</td>
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<td>Standing in patient’s shoes</td>
<td>10.9 (10.4 to 11.5)</td>
<td>10.8 (10.3 to 11.3)</td>
<td>11.7 (11.1 to 12.2)</td>
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<td>0.36 (0.11 to 0.60)</td>
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<td>.003 C</td>
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<td><strong>Physician Belief Scale</strong></td>
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<tr>
<td>Total mindfulness</td>
<td>76.7 (74.0 to 79.0)</td>
<td>77.9 (75.2 to 80.6)</td>
<td>72.7 (70.0 to 75.5)</td>
<td>69.9 (67.1 to 72.7)</td>
<td>72.6 (69.7 to 75.4)</td>
<td>0.37 (0.14 to 0.59)</td>
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<tr>
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<td>&lt;.001 C</td>
<td>.001 C</td>
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<td><strong>Baer Mindfulness Scale</strong></td>
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<tr>
<td>Total mindfulness</td>
<td>45.2 (43.3 to 47.1)</td>
<td>46.3 (44.5 to 48.2)</td>
<td>52.9 (51.0 to 54.8)</td>
<td>55.0 (53.0 to 56.9)</td>
<td>54.1 (52.0 to 56.1)</td>
<td>1.12 (0.86 to 1.38)</td>
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<tr>
<td>P value</td>
<td>.27</td>
<td>&lt;.001 C</td>
<td>&lt;.001 C</td>
<td>&lt;.001 C</td>
<td>&lt;.001 C</td>
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<td>Observe</td>
<td>25.6 (24.4 to 26.8)</td>
<td>26.7 (25.5 to 27.8)</td>
<td>30.6 (29.4 to 31.8)</td>
<td>31.1 (29.8 to 32.3)</td>
<td>30.7 (29.4 to 32.0)</td>
<td>1.03 (0.77 to 1.28)</td>
</tr>
<tr>
<td>P value</td>
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<td>&lt;.001 C</td>
<td>&lt;.001 C</td>
<td>&lt;.001 C</td>
<td>&lt;.001 C</td>
<td></td>
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<tr>
<td>Nonreact</td>
<td>19.7 (18.7 to 20.7)</td>
<td>20.1 (19.1 to 21.1)</td>
<td>22.9 (21.8 to 23.9)</td>
<td>23.9 (22.9 to 24.9)</td>
<td>23.4 (22.3 to 24.4)</td>
<td>0.88 (0.63 to 1.13)</td>
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<tr>
<td>P value</td>
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Mind-Set Matters

Exercise and the Placebo Effect

Alia J. Crum and Ellen J. Langer

Harvard University

ABSTRACT—In a study testing whether the relationship between exercise and health is moderated by one’s mind-set, 84 female room attendants working in seven different hotels were measured on physiological health variables affected by exercise. Those in the informed condition were told that the work they do (cleaning hotel rooms) is good exercise and satisfies the Surgeon General’s recommendations for an active lifestyle. Examples of how their work was exercise were provided. Subjects in the control group were not given this information. Although actual behavior did not change, 4 weeks after the intervention, the informed group perceived themselves to be getting significantly more exercise than before. As a result, compared with the control group, they showed a decrease in weight, blood pressure, body fat, waist-to-hip ratio, and body mass index. These results support the hypothesis that exercise affects health in part or in whole via the placebo effect.

The placebo effect extends much further than medications or therapy: Subjects exposed to fake poison ivy developed real rashes (Blakeslee, 1998), people imbibing placebo caffeine experienced increased motor performance and heart rate (and other effects congruent with the subjects’ beliefs and not with the pharmacological effects of caffeine; Kirsch & Sapirstein, 1998), and patients given anesthesia and a fake knee operation experienced reduced pain and swelling in their “healed” tendons and ligaments (Blakeslee, 1998). More generally, studies suggest that 60 to 90% of drugs and other therapies prescribed by physicians depend on the placebo effect for their effectiveness (Benson & Freedman, 1996; Nesbitt Shanor, 1999).

The placebo effect does not have to involve inert pills or sham procedures. Symbols, beliefs, and expectations can elicit powerful physiological occurrences, both positive and negative (Hahn & Kleinman, 1983; Roberts, Kewman, & Mercie, 1993). For example, the mere presence of a doctor increases patients’ blood pressure (the “white coat effect”), reinterpreting pain in nonthreatening ways (e.g., as sensations) prompts patients to take fewer sedatives and leave the hospital sooner; and the
activity, initial measures suggest that the subjects were not aware that their work is good exercise. At the onset of the experiment, 66.6% of subjects reported not exercising regularly, and 36.8% reported not getting any exercise. Interestingly, the health of the room attendants reflected their perceived levels of exercise rather than their actual levels: According to their initial physiological measures, the subjects were at risk with respect to BP, BMI, percentage of body fat, and WHR—all important indicators of health. These results suggest the possibility that at the onset of the study, the room attendants were not receiving the
Fig. 2. Changes in physiological dependent variables as a function of time and group. Bars denote standard errors of the means. BMI = body mass index.
Sleepy at Work:

“Slept less than 5 hours in a night: 3 or more nights in the past week.”

Each bar = 1 Adventist Health Clinical Area
The Impact of Sleep Deprivation on Emotional Brain Reactivity and Functional Connectivity

Seung-Schik Yoo, Ninad Gujar, Peter Hu, Ferenc A. Jolesz and Matthew P. Walker.
Current Biology, Volume 17, Issue 20, 23 October 2007, Pages R877-R878
Sleep Loss and Performance in Residents and Nonphysicians: A Meta-Analytic Examination
Ingrid Philibert, Sleep. 2005 (28)11. 1392-1402

Design: Meta-analysis of 60 studies on the effect of sleep deprivation, with a total sample of 959 physicians and 1,028 nonphysicians and 5,295 individual effect indexes.

Results: Sleep loss of less than 30 hours reduced physicians’ overall performance by nearly 1 SD and clinical performance by more than 1.5 SDs.

MDs going 24 hours without sleep leads to major performance drops:

• 15th percentile of rested MD level
• 7th percentile on clinical tasks

Figure 2—Effect of short-term sleep loss on performance by type of subject and type of study. The graph shows average effect size corrected for measurement error and standard error of the corrected effect sizes.
The Cognitive Consequences of Sleep and Sleep Loss

Walker, MP. Sleep Medicine 9 Suppl. 1 (2008) S29-S34

One night of sleep deprivation:
- 40% reduction in ability to form new memories in humans.
- Negative memories are most resilient to fatigue, so you are tired and grumpy.

Fig. 4. Sleep deprivation induced emotional and neutral memory encoding impairments [3,18]. *$P \leq 0.05$, **$P \leq 0.01$. Reprinted, with permission, from the Annual Review of Psychology, Volume 57. © 2006 by Annual Reviews www.annualreviews.org
Fatigue at Work

• Quality is more than mortality or length of stay, it is about the intersection of clinical, operational, and caregiver work-life balance outcomes

• Sleep Deprivation:
  – 24 hours and you are drunk
  – 30 hours and you are stupid (1.5 SD drop in clinical performance)
  – 35 hours and you are a jerk
  – 144 hours and you are dead

• Talking about the biology of fatigue changes the conversation into a psychologically safe one
A Safety Culture Primer for the Critical Care Clinician

The Role of Culture in Patient Safety and Quality Improvement

Daniel W. Hudson, BS, J. Bryan Sexton, PhD, MA, Eric J. Thomas, MD, MPH, and Sean M. Berenholtz, MD, MHS

Learning Objectives: After reading this issue, the participant should be able to:
1. Describe recent evidence that defines, characterizes, and highlights the importance of unit-level safety culture as it relates to patient safety and quality improvement.
2. Describe the tools and methodology associated with assessing and improving safety culture.
3. Explain the importance of linking evidence-based medicine with safety culture change to achieve substantial and sustainable improvements in patient care, and identify proven models that facilitate this process.
Safety Culture Primer: “The way we do things around here”

- Measure of consensus / Predicts outcomes
- Still an immature science

• Assessing improvement vs. maintenance:
  - improve climate by 10 points or more?
  - maintain a good culture of 60 points or more?

Safety Climate across 60 Ascension Health Hospitals

% of respondents reporting positive safety climate

80% Response Rate
29,793 respondents

Safety Climate across 890 Ascension Health Clinical Areas

% of respondents reporting positive safety climate

The strongest predictor of clinical excellence: caregivers feel comfortable speaking up if they perceive a problem with patient care.

Hudson et al., 2009. Contemporary Critical Care Vol 7 No 5

No BSI = 5 months or more w/ zero

No BSI 21%
No BSI 31%
No BSI 44%
2007 Teamwork Climate Across 45 ICUs

% of respondents reporting good teamwork climate

12 ICUs with Low Teamwork (<60) in ’07
Baseline BSI: 4.31
2008 BSI: 1.19
\( t=2.49; \ p=.03 \)

12 ICUs with High Teamwork (≥80) in ’07
Baseline BSI: 0.887
2008 BSI: 0.730
\( T=0.33; \ p=.75 \)

Goal 80%
Needs improvement < 60%

* RWJ Foundation grant 58292
OR Teamwork Climate by Hospital

“Disagreements in the ORs here are resolved appropriately (i.e. not who is right, but what is best for the patient).”

OR Teamwork Climate and Postoperative Sepsis (per 1000 discharges)

- Group Mean
- Low Teamwork Climate
- Mid Teamwork Climate
- High Teamwork Climate

AHRQ National Average

May 2006
2135 OR respondents
60 hospitals
77% response rate
Surgical team behaviors and patient outcomes

Karen Mazzocco, R.N., J.D.,* Diana B. Petitti, M.D., M.P.H.,
Kenneth T. Fong, M.S., Doug Bonacum, M.B.A., John Brookey, M.D.,
Suzanne Graham, R.N., Ph.D., Robert E. Lasky, Ph.D., J. Bryan Sexton, Ph.D.,
Eric J. Thomas, M.D., M.P.H.

aSharp Metropolitan Medical Campus, Sharp Healthcare, Patient Relations and Concierge Services, San Diego, CA USA; bArizona State University, Tempe, AZ, USA; cKaiser Permanente Program Offices, Oakland, CA, USA; dKaiser Permanente Southern California, Pasadena, CA, USA; eKaiser Permanente Northern California, Oakland, CA, USA; fUniversity of Texas Medical School, Houston, TX, USA; gJohns Hopkins School of Medicine, Baltimore, MD, USA

KEYWORDS:
Operating room;
Team behavior;
Patient outcomes;
Human factors;
Behavioral markers

Abstract

BACKGROUND: Little evidence exists that links teamwork to patient outcomes. We conducted this study to determine if patients of teams with good teamwork had better outcomes than those with poor teamwork.

METHODS: Observers used a standardized instrument to assess team behaviors. Retrospective chart review was performed to measure 30-day outcomes. Multiple logistic regressions were calculated to assess the independence of the association between teamwork with patient outcome after adjusting for American Society of Anesthesiologists (ASA) score.

RESULTS: In univariate analyses, patients had increased odds of complications or death when the following behaviors were exhibited less frequently: information sharing during intraoperative phases, briefing during handoff phases, and information sharing during handoff phases. Composite measures of teamwork across all operative phases were significantly associated with complication or death after adjusting for ASA score (odds ratio 4.82; 95% confidence interval, 1.30–17.87).

CONCLUSION: When teams exhibited infrequent team behaviors, patients were more likely to experience death or major complication.

© 2008 Published by Elsevier Inc.
Mazzocco et al
Observation of teamwork – linked to complications
Am. J. of Surgery 2008

Increasing Complications

Less effective teamwork

© 2009 Pascal Metrics Inc.
Attention Follows Power

people pay attention to those who have power, status, control, and influence…

Fiske, 1993

Susan T. Fiske, Princeton University
“The physicians and nurses here work together as a well coordinated team.”

What are the norms in units where less than 60% report good MD/RN dynamics…

Each bar = 1 AH Clinical Area (n=325)
In units where < 60% agree that MD/RN interactions are good, there is significantly less respect, purpose, and meaning:

Much more disruptive behavior
I would like to find a better job.
I often think about leaving this job.

I argue with coworkers
I drink too much coffee
I am frequently late for work
My work life is not understood by my friends and family.
Not enough time to think through patient care issues.

Spirituality:
Diverse set of spiritual views accepted, my spirituality has a comfortable home, my spiritual views are respected
Our current approach to quality in healthcare limits high reliability

- Our systems rely on perfect performance, every time
- Deny human limitations: fatigue, task overload, distraction, stress…
- Work as a team of experts--not an expert team
- Punitive approach when error occurs -Shame, Blame, Train
Assessing and improving safety culture throughout an academic medical centre: a prospective cohort study

Lori A Paine,1 Beryl J Rosenstein,2 J Bryan Sexton,3 Paula Kent,1 Christine G Holzmueller,4 Peter J Pronovost3

ABSTRACT
Objectives To describe the authors’ hospital-wide efforts to improve safety climate at a large academic medical centre.
Design and setting A prospective cohort study used multiple interventions to improve hospital-wide safety climate. 144 clinical units in an urban academic medical centre are included in this analysis.
Interventions The comprehensive unit-based safety programme included steps to identify hazards, partner units with a senior executive to fix hazards, learn from defects, and implement communication and teamwork tools. Hospital-level interventions were also implemented.
Main outcome measures Safety climate was assessed annually using the safety attitudes questionnaire. The safety culture goal was to meet or exceed the 60% minimum positive score or improve the score by ≥10 points.

Climate among units within a hospital.19–21 Climate within clinical areas is responsive to interventions. The comprehensive unit-based safety programme (CUSP) improved climate in intensive care units (ICUs) at the Johns Hopkins Hospital (JHH)22 and throughout Michigan in the USA,23 and was associated with improved climate, reduced risks and decreased nurse turnover in a surgical inpatient unit at JHH.24

A core behaviour of a safe culture is the capacity to learn from mistakes. The healthcare industry is better at recovering rather than learning from defects. Recovering from defects fails to decrease the probability that future patients will experience the same problem.25 Healthcare organisations must also learn from mistakes.

Although the methods to improve climate in a specific unit26 are maturing, methods to improve culture across an entire hospital are nascent. The
Teamwork gets better, but what does “teamwork” mean?
Herd Immunity...

When \( \geq 60\% \) report good teamwork or safety norms, there is a significant DECREASE in bad outcomes
Teamwork Climate Across 325 Adventist Health Clinical Areas

Each bar = 1 AH Clinical Area (n=325)

<60% significantly more likely to be burned out and clinically depressed

<60%
≥80%
Evidence Based local solutions: Safety “If-Then”

- **If** staff lack consensus about quality and safety issues?
  - **Then** Safety as a System Training (free 27 Minute online course) [www.dukepatientsafetycenter.com](http://www.dukepatientsafetycenter.com)

- **If** staff feel unengaged in safety and quality?
  - **Then** build grassroots with Learning from Defects

- **If** staff feel unengaged, unsafe, & un-resourced for quality?
  - **Then** build infrastructure & capacity with Psychological Safety and Executive Partnerships
Evidence based local solutions: Teamwork “If-Then”

- **If** staffing levels inadequate/info lost at shift change:
  - Then **Morning/Shift Briefings**
- **If** interdisciplinary patient management issues:
  - Then **Daily Goals**
- **If** conflicts unresolved/role clarity lacking:
  - Then **Shadowing Exercise**
- **If** difficulty speaking up:
  - Then standardizing with **SBAR** or **Critical Language**
Two Rules for Patient Safety Tools

1) Reduce Stress (by improving predictability or control)
2) Keep it Ruthlessly Simple
PSO Toolbox

Data Driven Triage of Improvement Tools

- Staffing levels inadequate? Info lost at shift change?: consider Morning/Shift Briefings
- Interdisciplinary patient management issues?: consider Daily Goals
- Trouble resolving conflicts/lack of role clarity?: consider Shadowing Exercise
- Difficulty speaking up?: consider standardizing through SBAR or using Critical Language

If staff lack consensus about quality and safety issues?
  - Share “Safety as a System” module with staff: www.dukepatientsafetycenter.com
  - Feel unsafe or unengaged in safety and quality?
    - Learning from Defects
    - Executive Partnership
Morning Briefing

Easy to use, little training, quick

• Charge nurse, attending/fellow at 7:30am

• What happened overnight?
  – Adverse events, near misses, admissions and discharges

• Where should I begin rounds?
  – high-acuity patients, patient flow

• “What are your concerns regarding potential problems for today?”
  – patient scheduling, equipment availability, outside patient testing, staffing, and provider skill mix.

Sample Daily Goals

---

**Daily Goals**

<table>
<thead>
<tr>
<th>Room Number</th>
<th>Date / /</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0700-1500</td>
</tr>
<tr>
<td>What needs to be done for patient to be discharged from the ICU?</td>
<td></td>
</tr>
<tr>
<td>What is patient's greatest safety risk and how can we decrease risk?</td>
<td></td>
</tr>
<tr>
<td>Pain Mgt / Sedation (held to follow commands?)</td>
<td></td>
</tr>
<tr>
<td>Cardiac / volume status; Net goal for midnight; Beta blockade; review EKGs</td>
<td></td>
</tr>
<tr>
<td>Pulmonary/Ventilator (HOB, PUD, DVT, weaning, glucose control); OOB</td>
<td></td>
</tr>
<tr>
<td>ID, Cultures, Drug levels</td>
<td></td>
</tr>
<tr>
<td>GI / Nutrition / Bowel regimen</td>
<td></td>
</tr>
<tr>
<td>Can any medications be discontinued? Converted to PO? Adjusted for renal fx?</td>
<td></td>
</tr>
<tr>
<td>Tests / Procedures today</td>
<td></td>
</tr>
<tr>
<td>What scheduled labs are needed?</td>
<td></td>
</tr>
<tr>
<td>What AM labs are needed? CXR? Is patient on critical pathway?</td>
<td></td>
</tr>
<tr>
<td>Consultations</td>
<td></td>
</tr>
<tr>
<td>Is the primary service up-to-date?</td>
<td></td>
</tr>
<tr>
<td>Has the family been updated? Have social issues been addressed?</td>
<td></td>
</tr>
<tr>
<td>Can catheters/tubes be removed?</td>
<td></td>
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<tr>
<td>Is this patient receiving DVT/PUD prophylaxis?</td>
<td></td>
</tr>
<tr>
<td>Anticipated LOS &gt; 3 days: fluconazole</td>
<td></td>
</tr>
<tr>
<td>PO, LT care plans. LOS &gt; 4 days: epo</td>
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<tr>
<td>Are there events or deviations that need to be reported? ICUSRS?</td>
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**PROTOCOLS AVAILABLE IF BOLDED**

For Weinberg only: ICU status    IMC status    Fellow/Attg initials: __________

Rev 07/2003

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Task Clarity
Shadowing Tool:
Reduce Role & Task Ambiguity by observing the world with a different lens

• Spend 4 hours shadowing a caregiver from a different shift/role/unit.

• Identify communication and teamwork issues as you spend half a shift shadowing.

• Debrief with the caregiver you shadowed, then with your unit, by answering these questions:
  - what did I see
  - what did I learn
  - what will I do differently
  - how will I communicate differently

Shadowing Tool Fast Facts

What do I need to know?
Unresolved conflict often originates upstream where there is role ambiguity or task ambiguity between disciplines, shifts, or units. When it is unclear where my job stops and your job starts, we have the potential for serious conflict in settings were production pressures are high, and opportunities to coordinate are minimal. This tool is a low cost/high yield common sense method for clearing up uncertainties around roles and tasks, and/or for understanding the origins of breakdowns in coordination of care.

What do I need to do?
In response to a pattern of communication breakdowns or routine conflicts, ask staff to nominate an individual to receive protected time for a shadowing day of at least 4 hours in another shift/discipline/unit. Coordinate with target group to be shadowed so that the expectation for debriefing target and one’s own unit is clear as the desired result. When reciprocal shadowing is possible, compare the debriefing answers to identify patterns or additional opportunities.

What should I be worried about?
Pick a day and a time when you will see typical complex problems (don’t wait for a low census day to do this). Whenever possible, reciprocate shadowing between shifts, disciplines, or units by shadowing and being shadowed within 2 weeks.

Critical Language

• Key phrases understood by all to mean “stop and listen to me – we have a potential problem”
  – When you hear this phrase, grab an elbow and join in the request for clarity
    • Allina – “I need some clarity”
    • Ohio Health “I need a moment, I have a questions”
    • Duke Helicopter Team: “This is Stupid”

• United Airlines CUS program –
  – I’m concerned
  – I’m uncomfortable
  – this is unsafe... I’m scared
Briefing Content

• Expectations are verbalized (sets norms for behavior, plan for contingencies)

• 2 critical components (technical & interpersonal):
  - Display competence while disavowing perfection
  - Atmosphere for open communications is established (don’t let me do anything stupid)

• In aviation, briefing content is a powerful predictor of subsequent performance
  Ginnett (1987); Hines (1998); Sexton & Helmreich (1999)
OR BRIEFING 5

- What are the names and roles of the team members?
- Is the correct patient/procedure Confirmed (TIME-OUT)?
- Have ABX been given (if appropriate)?
- What are the critical steps of the procedure?
- What are the potential problems for this case (Nursing, Anesth, Surg)?

Briefing comment examples:
"If something were to go wrong, what would it likely be from your view?"
"If anything doesn't look right, let me know, and I will do the same for you."

Evidence Based Briefing Fast Facts:

**What do I need to know?**
Provide a simple structure in which the surgeon can set expectations and make the surgical procedure more predictable for everyone, while improving the quality of information flow.

**What do I need to do?**
Start with a small number of well-respected (clinically, socially, and emotionally) surgeons. Provide protected time to these initial surgeons, so that they can learn the concept of pulling the team together formally in the moments just prior to skin incision.

**What should I be worried about?**
It takes about 1-2 months to get comfortable with briefings. When staff have seen them occur for 2 weeks, they start to engage in the briefings. Ensure that briefings are common and mastered before debriefings are attempted (debriefings require significantly more skill and facilitation).

Adapted From:
Improvements after OR Briefings: SAQ Pre-Post

• INCREASE: Nurse input is well received in the OR
• INCREASE: Personnel speak up if they perceive a problem with pt care
• INCREASE: I know the first and last names of all the personnel that I worked with during my last shift
• INCREASE: All OR personnel take responsibility for pt safety
• INCREASE: Pt safety is constantly reinforced as the priority in the OR
• INCREASE: Staffing levels are sufficient to handle the number of patients
• DECREASE: It is difficult to discuss mistakes
• DECREASE: High workload is common in the ORs here
• 0% nurse turnover since onset of briefings 1 year ago
Behavioral Markers by Phase: Related to Pt Harm

Regression of these BM’s onto Pt Outcome score captures 20% of the variability: $R=.445$, $p<.001$
OR Teamwork Climate by Hospital

% respondents reporting good teamwork

Hospital (each bar = 1)
Quality Improvement meets Quality of Life

What can we do to make your day simpler, safer and easier?
Impact of Current Approach:

*We are not Mindful*

- Joy in work is diminished
- Resources are wasted
- Needless harm is caused

...HRO concept of “learning organizations”
Traumatic Events & Emotional Upheavals Reported by Caregivers

• Being part of or witness to patient harm
• Caregiver deaths: murders, cancers, suicides, car accidents, multiple deaths in the same unit, deaths of children of caregivers
• Other events: head injuries, strokes, theft, cancer diagnoses among staff, miscarriages, depression, theft, fires, poisoning and divorces

Maslach Burnout Inventory: (Emotional Exhaustion)

- I feel burned out from my work.
- I feel frustrated by my job.
- I feel I am working too hard on my job.
- I feel fatigued when I get up in the morning and have to face another day on the job.

Predictability vs. Chaos

Stress and Safety in Turbulent Times: Human Nature meets Quality Improvement
Getting Feedback and Speaking up

• **Feedback item:**
  – “I receive appropriate feedback about my performance.”

• **Speaking up item:**
  – “In this clinical area, it is difficult to speak up if I perceive a problem with patient care.”

Duke Medicine
Getting Feedback and Speaking Up
144 JHH Clinical Areas

Feedback 2006
r = .44, p < .001
Feedback 2008

Speaking Up 2006
r = -.12, p < .151
Speaking up 2008
r = -.34, p < .001

r = .16, p < .042
Getting Feedback and Speaking Up
71 MI ICUs

- Feedback 2004 to Feedback 2006: $r = 0.51, p < 0.001$
- Feedback 2004 to Speaking Up 2004: $r = -0.28, p < 0.001$
- Feedback 2006 to Speaking Up 2006: $r = -0.29, p = 0.014$
- Speaking Up 2004 to Speaking Up 2006: $r = -0.11, p = 0.381$
- Feedback 2004 to Speaking Up 2006: $r = -0.31, p < 0.001$
- Speaking Up 2004 to Feedback 2006: $r = 0.19, p < 0.10$
Psychological safety

Psychological safety is a belief that one will not be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes.

A shared sense of psychological safety is a critical input to an effective learning system.

Amy Edmondson
Psychological Safety
Leadership Behaviors

It takes inclusive leaders who:

– Proactively invite input (Name/Role Activation)
– Are accessible (Present/Approachable/Therapist hat)
  • You can affirm feelings without affirming facts
– Acknowledge the limits of current knowledge
  • Change the goal for today from solving to understanding
– “Go first” (particularly in displays of fallibility)

Inclusive leaders lower the psychological costs of voice and raise the psychological costs of silence
Reference List

- Frankel et al. HSR (2008)
- Heifetz, Leadership Without Easy Answers. 2003 (book)
- Thomas et al. BMC Health Serv Res. 2005; Jun 8;5(1)
Duke Patient Safety Center:

Training, Research and Implementation for Patient Safety and Quality

Duke Patient Safety Center Mission:

To help individuals, clinical areas, hospitals, ambulatory centers and others who want to improve quality and patient safety. We aim to:

1. Spread best practices inside and outside Duke University Health System
2. Generate new knowledge
3. Bring joy back to work

We work to develop and support quality and safety related roles, committees, training, tools, research, strategies, data and other resources through our interdisciplinary team. We strive to balance the clinical, administrative, psychological, spiritual and service needs of our organization, our frontline workers and the patients that we serve.

### Webinars:

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<tr>
<th>Date</th>
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<tr>
<td>Jul. 28, 2010</td>
<td>Safety Culture 101: Work with Culture Data</td>
</tr>
<tr>
<td>Aug. 11, 2010</td>
<td>Psychological Safety</td>
</tr>
<tr>
<td>Sep. 08, 2010</td>
<td>Engagement in Quality &amp; Patient Safety</td>
</tr>
<tr>
<td>Oct. 06, 2010</td>
<td>Intro to Safety Culture Debriefings</td>
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<tr>
<td>Nov. 03, 2010</td>
<td>Stress Recognition and Coaching</td>
</tr>
<tr>
<td>Dec. 08, 2010</td>
<td>Finding, Fixing and Learning from Defects</td>
</tr>
<tr>
<td>Jan. 12, 2011</td>
<td>Introduction to TeamSTEPPS</td>
</tr>
<tr>
<td>Mar. 09, 2011</td>
<td>Caregiver Resilience and Quality Improvement: Double Edged Sword</td>
</tr>
<tr>
<td>Apr. 13, 2011</td>
<td>Fatigue Management</td>
</tr>
<tr>
<td>May 11, 2011</td>
<td>Conflict Resolution</td>
</tr>
<tr>
<td>Jun. 08, 2011</td>
<td>Care Coordination and Handoffs</td>
</tr>
<tr>
<td>Jul. 13, 2011</td>
<td>Advanced RCAs</td>
</tr>
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For Registration Information:
Please contact Christen Fullwood at 919-257-3376

### Courses:

- **Patient Safety Leadership Training** *(2 days)*
  - Course Description
  - Registration Information
- **Physician Leadership in Patient Safety and Quality** *(1 1/2 day)*
  - Course Description
  - Registration Information for Physicians/Faculty
  - Registration Information for Residents
- **TeamSTEPPS Implementation: Train the Trainer** *(2 days)*
  - Course Description
- **Conflict Resolution and Coaching for Managers, Preceptors, and Frontline Staff** *(1 day)*
  - Course Description
  - Registration Information
- **Enhancing Caregiver Resilience: Burnout & Quality Improvement Full Course** *(3 days: 1 full day plus 2 half days, and a follow-up webinar)*
  - Course Description
  - Registration Information
Utilizing Caregiver Wisdom to Drive Quality

- Safety Culture Triage
- Culture is local (clinical area level, not hospital level)
- Fatigue, Familiarity, Teamwork, WLB and Quality are difficult to separate
- 60% threshold for response rates and herd immunity
- **Predictability vs. Chaos:**
  - Tools to standardize interactions (e.g., briefings, SBAR, critical language)
  - New Manager, New Location, New Technology
- Mindfully Learn from Defects - Monthly
- Be ready to answer the questions:
  - Are we doing the right thing?
  - Are we learning from defects?
  - Are we safer?
Sharing our strengths

Kalkaska Memorial Health Center | Mercy Hospital Cadillac | Mercy Hospital Grayling
Munson Home Health | Munson & Kalkaska Dialysis Centers | Munson Medical Center | Munson Mobile Imaging
North Flight EMS | Northern Michigan Supply Alliance | Northwest Michigan Surgery Center
Otsego Memorial Hospital | Paul Oliver Memorial Hospital | West Shore Medical Center