Intro to Patient Safety:

New Paradigms for Leading Learning Organizations
Based on what we’ve explored so far this year, how might you set about building and sustaining a highly functioning team?
The Surprising Science of High Functioning Teams

The Surprising Science of High Functioning Teams:

1. On the good teams, members spoke in roughly the same proportion, a phenomenon the researchers referred to as “equality in distribution of conversational turn-taking.”

2. The good teams all had high “average social sensitivity” — a fancy way of saying they were skilled at intuiting how others felt based on their tone of voice, their expressions and other nonverbal cues.

“Conversational turn-taking,” “Average social sensitivity,” enhances psychological safety.
“Conversational turn-taking,” “Average social sensitivity,” and **psychological safety.**

“shared belief held by members of a team that the team is safe for interpersonal risk-taking”  
Amy Edmonson
“Conversational turn-taking,” “Average social sensitivity,” and psychological safety.

“shared belief held by members of a team that the team is safe for interpersonal risk-taking”  Amy Edmonson

places “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.”  Peter Senge
Advocacy

Telling:
- Dictating: "Here's what I say, and never mind why." (dysfunctional)
- Asserting: "Here's what I say, and never why I say it."
- Explaining: "Here's how the world works and why I can see it that way."

Bystanding: Making comments which pertain to the group process, but not to content.

Sensing: Watching the conversation flow without saying much, but keenly aware of all that transpires.

Withdrawing: Mentally checking out of the group, and not paying attention (dysfunctional).

Inquiry

Generating

Testing: "Here's what I say. What do you think of it?"

Skilled discussion:
- (Balancing advocacy and inquiry; genuinely curious, making reasoning explicit, asking others about assumptions without being critical or accusing)
- Politicking: Giving the impression of balancing advocacy and inquiry, while being close-minded (dysfunctional)

Dialogue:
- (Suspending all assumptions, creating a container in which collective thinking can emerge)
- Interrogating: "Why can't you see that your point of view is wrong?" (dysfunctional)
- Clarifying: "What is the question we are trying to answer?"

Interviewing:
- Exploring others' points of view and the reasons behind them.

Low

High
The #1 characteristic of leaders of highly functioning teams at Google was . . .?
“Vulnerability is not about fear and grief and disappointment; it is the birthplace of everything we’re hungry for.”

— Brené Brown
Our Short History In Patient Safety

Gail Armstrong
Patrick Kneeland
Dan Hyman
Most common motivation for all healthcare professionals
Safety and healthcare...
Historical Perspective

• In 1925, 4 main types of adverse events identified for hospitalized patients:
  • Burns due to hot water
  • Delirious patients jumping from hospital windows
  • Accidents connected with hospital elevators
  • Mistakes in the use of drugs

Aikens C. *Study in the Ethics for Nurses*. Philadelphia: Saunders; 1925
A large and ever present cultural barrier is the deeply embedded belief that quality of care and error free clinical performance are the result of being well trained and trying hard. In this paradigm, inevitable mistakes are viewed as episodes of personal failure, with the predictable result that these events are minimized and not openly discussed (pg. i86).
Josie King video

https://www.youtube.com/watch?v=JeVcXhvPvbU
The number of people who die each year from medical errors... is equivalent to 3 jumbo jet crashes every 2 days.
“Building safety into processes of care is a more effective way to reduce errors than blaming individuals.”

(IOM, 1999, p.4)
Medical error—the third leading cause of death in the US

Medical error is not included on death certificates or in rankings of cause of death. Martin Makary and Michael Daniel assess its contribution to mortality and call for better reporting

Martin A Makary professor, Michael Daniel research fellow
Department of Surgery, Johns Hopkins University School of Medicine, Baltimore, MD 21287, USA

The annual list of the most common causes of death in the United States, compiled by the Centers for Disease Control and Prevention (CDC), informs public awareness and national research priorities each year. The list is created using death certificates filled out by physicians, funeral directors, medical examiners, and coroners. However, a major limitation of the death certificate is that it relies on assigning an International Classification of Disease (ICD) code to the cause of death. As a result, causes of death not associated with an ICD code, such as human and system factors, are not captured. The science of safety has matured to describe how communication breakdowns, diagnostic errors, poor judgment, and inadequate skill can directly result in patient harm and death. We analyzed the scientific literature on medical error to identify its contribution to US deaths in relation to causes listed by the CDC.7

Death from medical care itself

Medical error has been defined as an unintended act (either of omission or commission) or one that does not achieve its intended outcome, the failure of a planned action to be completed as intended (an error of execution), the use of a wrong plan to achieve an aim (an error of planning), or a deviation from the process of care that may or may not cause harm to the patient.8 Patient harm from medical error can occur at the individual or system level. The taxonomy of errors is expanding to better categorize preventable factors and events.9 We focus on preventable lethal events to highlight the scale of potential harm.
Error In Our Evolving World
Charles’ Vincent Model based on Reason’s Swiss Cheese Model
# David Marx’s Model of Error for Just Culture

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**SYSTEMS**
Increasing Transparency of Quality Data
High Reliability Organizations

- High Reliability Organizations
  - Simplify, Standardize processes, use checklists where appropriate
  - Improve Information Access with goal of transparency of data
  - Clinical Decision Support Systems (reminders, constraints)
  - Helpful redundancy
  - Real-time identification of failures
  - Processes to support safety habits and patterns in practice
  - Make the system visible
Human Cost of Error

• Highly publicized narratives:
  • Betsy Lehman - 1994
  • Willie King – 1995
  • Josie King - 2001
  • Lewis Blackman – 2002
98,000 people die every year from medical errors.
Today I will change that.

Helen Haskell – President, Mothers Against Medical Error and Consumers Advancing Patient Safety; Steering Group, World Health Organization Global Patient Safety Challenge on Medication Safety

for Patient Safety and Medical Error Reduction
PATIENTS
Disclosure - The Michigan Model
Rick Boothman

• Core Elements:
  • Compensate patients quickly and fairly when inappropriate care causes injury
  • Support clinical staff when the care was reasonable
  • Reduce patient injuries (and claims) by learning from patients’ experiences

• Results:
  • The rate of new claims at UMHS has decreased from approximately 7 per 100,000 patients to fewer than 5.
  • The rate of lawsuits has declined from 2.13 suits per 100,000 patients per month, to roughly 0.75.
  • The median time from claim to resolution has dropped from 1.36 to 0.95 years.
Partnership Between Patients & Providers

The mission of Choosing Wisely is to promote conversations between clinicians and patients by helping patients choose care that is:

- Supported by evidence
- Not duplicative of other tests or procedures already received
- Free from harm
- Truly necessary
Burnout Among Health Care Professionals
A Call to Explore and Address This Underrecognized Threat to Safe, High-Quality Care

Lotte N. Dyrbye, MD, MHPE, Mayo Clinic; Tait D. Shanafelt, MD, Mayo Clinic; Christine A. Sinsky, MD, American Medical Association; Pamela F. Ciprano, PhD, RN, NEA-BC, FAAN, American Nurses Association; Jay Bhattacharjee, DO, MPH, MPA, American Hospital Association; Alexander Demmey, DSc, Association of American Medical Colleges; Colin P. West, MD, PhD, Mayo Clinic; David Meyers, MD, Agency for Healthcare Research and Quality

July 5, 2017

The US health care system is rapidly changing in an effort to deliver better care, improve health, and lower costs while providing care for an aging population with high rates of chronic disease and co-morbidities. Among the changes affecting clinical practice are new payment and delivery approaches, electronic health records, patient portals, and publicly reported quality metrics—all of which change the landscape of how care is provided, documented, and reimbursed. Navigating these changes are health care professionals (HCPs), whose daily work is critical to the success of health care improvements. Unfortunately, as a result of these changes and resulting added pressures, many HCPs are burned out, a syndrome characterized by a high degree of emotional exhaustion and high depersonalization (i.e., cynicism), and a low sense of personal accomplishment from work [1,2].

What is the Extent of Burnout Among Health Care Professionals?

Physicians
More than half of US physicians are experiencing substantial symptoms of burnout. Physicians working in the specialties at the front lines of care (e.g., emergency medicine, family medicine, general internal medicine, neurology) are among the highest risk of burnout. Burnett is nearly twice as prevalent among physicians as US workers in other fields after controlling for work hours and other factors [2,3]. Between 2011 and 2014, the prevalence of burnout increased by 9 percent among physicians while remaining stable in other US workers. Several studies have also found a high prevalence of burnout and depression among medical students and residents, with rates higher than those of age similar individuals pursuing other careers [3,9].

Nurses and Other Health Care Professionals
Studies of nurses report a similarly high prevalence of burnout and depression. In a 1999 study of more than 10,000 registered registered nurses, 43 percent had high degree of emotional exhaustion [10]. A subsequent study of approximately 68,000 registered nurses in 2007 reported that 35 percent, 37 percent, and 22 percent of hospital nurses, nursing home nurses, and nurses working in other settings had high degree of emotional exhaustion [11,12]. The prevalence...
When Things Go Wrong
RESPONDING TO ADVERSE EVENTS

A Concordia Statement of the Harvard Hospitals
MARCH 2016

Health Care
University of Missouri Health System

What Second Victims Desire...

SYSTEMS/PROVIDERS
Team-training in healthcare: a narrative synthesis of the literature

Sallie J Weaver,1 Sydney M Dy,2 Michael A Rosen1

ABSTRACT

Background: Patient safety and high-quality care are goals of patient care at a highly effective team. In a technology-driven healthcare environment, team training has been shown to improve healthcare outcomes.

Methods: A search of the literature was performed using CINAHL, MEDLINE, PubMed, and Scopus. A narrative synthesis of the literature was conducted.

Results: Team training has been found to improve patient outcomes. The most common team training interventions included teamwork training, communication, knowledge, and attitudes.

Conclusions: Team training is a vital component of patient care. It is essential for improving patient outcomes and enhancing healthcare delivery. Team training should be a priority for healthcare organizations. Further research is needed to identify the most effective team training interventions and to evaluate their impact on patient outcomes.

INTRODUCTION

As healthcare systems become more complex, the need for effective team training becomes increasingly important. Team training is essential for improving patient outcomes and enhancing healthcare delivery. Team training should be a priority for healthcare organizations. Further research is needed to identify the most effective team training interventions and to evaluate their impact on patient outcomes.
Importance of Research in Developing Safe Systems
Patricia Ebright – University of Indiana

- Nurse strategies for dealing with, or adapting to, the system gaps:
  - Anticipating or forward thinking
  - Proactive monitoring of patient status to detect early warning signals
  - Strategic delegation and hand-off decisions to maintain flow of workload
  - Reduce reliance on memory - Individualized paper memory aids
  - “Cognitive stacking” – constant re-priorization of activities to be done.
Personal Reflection in Dyads

1) Describe an adverse event that you have been involved in (in the last 6 months if possible).

2) What were the circumstances?

3) What was the reaction of your colleagues to the even? What was the reaction of your supervisor? What was the reaction of the patient/family?

4) What steps were taken after the event to address it? How did these steps feel to you?
Applying Psychological Safety Toward Enhancing Patient Safety: Getting it Right When Things Go Wrong
Healthcare Value

<table>
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<th>Patient Experience (HCAHPS, user experience)</th>
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<td>Cost</td>
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44K-98K deaths every year due to error
Patients

$17 Billion

Providers
Hospital professionals are highly proficient:
Function at 99% proficiency level
Hospital professionals are highly proficient:

Function at 99% proficiency level

- 16K lost pieces of mail each hour
- 32K check deductions from the wrong bank account each hour
- 2 unsafe plane landings at DIA every day
Have you ever been hesitant to report (or didn’t report at all), an error that you participated in or observed?

Why?
“The single greatest impediment to error prevention in the medical industry is that we punish people for making mistakes.”  

Lucian Leape
To err is human
To drift is human
“How could this happen?”
“How could this happen?”

“Who messed up?”
“How could this happen?”

“Who messed up?”

“What will we do to prevent the next patient from being harmed?”
Balancing “No Blame” with Accountability in Patient Safety

Robert M. Wachter, M.D., and Peter J. Pronovost, M.D., Ph.D.
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Adapted from James Reason, David Marx, Michael Leonard, Allen Frankel
Human error: an inadvertent (subconscious) action, slip, lapse, or mistake.

At-risk behavior: a conscious choice where the risk not recognized or believed to be justified. (Sometimes a “short cut” or inexperience/lack of education).

Reckless behavior: Willfully (consciously) ignoring steps that are workable within the system, clearly spelled out, and routinely used within that setting. A conscious disregard of unreasonable risk. Also: repetitive at-risk behavior of the same type despite coaching, education, and system support.
Case 34-2010: A 65-Year-Old Woman with an Incorrect Operation on the Left Hand

David C. Ring, M.D., Ph.D., James H. Herndon, M.D., M.B.A., and Gregg S. Meyer, M.D.
65 year old-woman admitted to day-surgery unit for release of a trigger finger of the L ring finger

Seen in ortho clinic 3 months earlier with complaints of pain and stiffness in the ring finger of the L hand, with finger intermittently getting stuck in flexion

The patient elected a trial of dexamethasone, which was injected locally. At follow-up 8 weeks later, she reported no improvement in the joint symptoms. The examination was unchanged. The risks, benefits, limitations, and alternatives of operative and non-operative treatment were discussed. The patient decided to proceed with surgery.
Ten days later, the patient was admitted to the day-surgery unit, and carpal-tunnel-release surgery was performed without complications.

Immediately after completing the procedure, the surgeon realized that he had performed the incorrect operation.

Referred to event review.
What is the purpose of event review?
What is the purpose of event review?

Credentialing?

Risk mitigation?

Improvement?
“How could this happen?”
What will we do to prevent the next patient from being harmed?

Step 1. Systems contributors.

In evaluating the case, what system breakdowns contributed to the adverse event?
Step 1. Systems contributors.
In evaluating the case, what system breakdowns contributed to the adverse event?

- **Patient Factors**
  - First case of the day complicated by anxious patient
  - After delay asked to console patient from earlier case

- **Communication Factors**
  - Spanish speaking only
  - No interpreter available

- **Personnel Factors**
  - Personnel turned over - including RN who had assisted in pre-op

- **Technology Factors**
  - No tourniquet in room, forcing circulator to leave during usual time-out period

- **Equipment Factors**
  - Last patient of day, local anesthesia after 3 larger, general cases
  - Case moved to another OR

- **Environmental Factors**
  - Several surgeons behind schedule - case delayed
  - Change in nursing team mid-procedure

Wrong Site Surgery
Seek simplicity, but never trust it.
Step 2. Provider/staff actions.
In evaluating the case, were there provider/staff actions that contributed to the outcome?
What will we do to prevent the next patient from being harmed?

Step 2. Provider actions.
In evaluating the case, were there provider/staff actions that contributed to the outcome?

Mindset: “I have 3 big procedures that I have specifically planned and prepared for, and ‘a few carpal tunnels’ to perform today

Did not perform a time-out
Planned incision site not marked (the correct arm was marked on the wrist)

Mindset going into OR  “I will perform the best carpal tunnel I have ever performed”

During OR delay, went inpatient to perform a consult

Wrong Site Surgery
Step 2.1 Provider actions.

Do these actions best fit into category of . . .

- Human error (slip or lapse)
- At-risk behavior (a short cut, “drift,” or inexperience)
- Reckless behavior (willfully ignoring safety steps that are workable within the system, clearly spelled out, and routinely used)

What will we do to prevent the next patient from being harmed?
Step 2.2 Provider actions. Substitution test.

- When evaluating provider/staff actions, could three other reasonable provider/staff with similar skills and training do the same action under similar circumstances?

What will we do to prevent the next patient from being harmed?
No Harm

Use of the equipment resulted in no harmful outcome.

Harm

Use of the equipment resulted in a harmful outcome.
Step 3. Event response.

3.1 What steps can be taken to improve faulty systems that contributed to this event? How would these steps be implemented practically?

3.2 What steps can be taken to provide direct and timely feedback to the involved provider(s)/staff?

3.3 How will we support the involved provider(s)?

3.4 Disclosure to the patient

What will we do to prevent the next patient from being harmed?
How does doing what we just did maximize psychological safety, in pursuit of understanding what really happened?

How is doing what we just did different from the response you often see to surprising/bad outcomes (whether clinical outcomes or leadership outcomes, such as how the project was supposed to go, but didn’t)?
Applying Psychological Safety Toward Enhancing Patient Safety:
Getting it Right When Things Go Wrong
Concepts and Frameworks

“Conversational turn-taking,” and “social sensitivity,” to enhance psychological safety.

Demonstrating vulnerability as a leader.

Moving toward the generating quadrant in the “conversational palette.”

Using a Just Culture framework to analyze when things go wrong:
- Where and why does Drift occur in your environment?
- When things go wrong, how do people in your environment respond?

How Will You Apply These to Enhance Psychological Safety and Continuous Learning in Your Environment

(a) as a Team

How does the team currently review and analyze instances where care or processes do not work or where there are patient safety issues?

How does that support or undermine psychological safety and continuous learning?

What might you do as a team to enhance psychological safety and continuous learning when things go wrong?

(b) as an Individual

What specific actions might you take as an individual to promote the psychological safety on your team?

What does “leading with vulnerability” look like for you as a leader?
References


Quality and Peer Review
Individual Action Algorithm

Adapted from work of James Reason, Dave Mars, Michael Leonard, Allen Finkel
Participant Materials
What will we do to prevent the next patient from being harmed?

**Step 1. Systems contributors.** In evaluating the case, what system breakdowns contributed to the adverse event? Tools: Fishbone diagram

**Step 2. Provider/staff actions.** In evaluating the case, were there provider/staff actions that contributed to the outcome? Tools: Individual Action Algorithm

**Step 2.1 Provider actions.**

Do these actions best fit into category of . . .

- Human error (slip or lapse)
- At-risk behavior (a short cut, “drift,” or inexperience)
- Reckless behavior (willfully ignoring safety steps that are workable within the system, clearly spelled out, and routinely used)

**Step 2.2 Provider actions.** Substitution test.

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3.4 Disclosure to the patient
**Quality and Peer Review Individual Action Algorithm**

Adapted from work of James Reason, David Marks, Michael Leonard, Allen Finkel

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**Did the provider intend the action and/or the outcome to occur?**

- **Yes**
  - **Malicious Action/Discipline is warranted:**
    - Involve HR/Legal risk management and medical staff governance processes

- **No**
  - **Is there evidence of substance abuse or psychological impairment?**
    - **Yes**
      - **Substitution test:** Would other caregivers with similar skills and knowledge working in the same environment do the same in similar circumstances?
        - **Yes**
          - **Is there a history of potentially unsafe or questionable practice?**
            - **Yes**
              - **The system may support risky actions and need modification:**
                - System leaders share the accountability.
                - Re-training/education may be needed for caregiver groups
                - New norms may need to be defined and communicated.
            - **No**
              - **Improve processes:**
                - Increase accountability for nursing at-risk behaviors.
                - Create incentives for healthy behaviors.
                - Enhance training/teaching/decision support tools, match expertise
              - **Blameless, human error-console/counsel**
    - **No**
      - **Refer to medical staff accountability process**
        - Formal action may be required through medical staff accountability process;

- **No**
  - **Did the provider violate safe procedures with a conscious disregard of a substantial and unjustifiable risk?**
    - **Yes**
      - **Assistive referral for provider health/mental health assessment:**
        - Formal action may be warranted through medical staff accountability process;
    - **No**
      - **Did the provider engage in unprofessional behavior?**
        - **Yes**
          - **Malicious Action/Discipline is warranted:**
            - Involve HR/Legal risk management and medical staff governance processes
        - **No**
          - **Did the provider make an error in diagnostic or therapeutic decision making?**
            - **Yes**
              - **Malicious Action/Discipline is warranted:**
                - Involve HR/Legal risk management and medical staff governance processes
            - **No**
              - **Did the provider make a potentially unsafe choice?**
                - **Yes**
                  - **Malicious Action/Discipline is warranted:**
                    - Involve HR/Legal risk management and medical staff governance processes
                - **No**
                  - **Is there a history of potentially unsafe or questionable practice?**
                    - **Yes**
                      - **The system may support risky actions and need modification:**
                        - System leaders share the accountability.
                        - Re-training/education may be needed for caregiver groups
                        - New norms may need to be defined and communicated.
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                        - Increase accountability for nursing at-risk behaviors.
                        - Create incentives for healthy behaviors.
                        - Enhance training/teaching/decision support tools, match expertise
                    - **Blameless, human error-console/counsel**

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**System Error or Non-preventable adverse outcome**

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**No:** Human error did not contribute to the outcome
“Conversational turn-taking,” and “social sensitivity,” to enhance psychological safety.

Demonstrating vulnerability as a leader.

Moving toward the generating quadrant in the “conversational palette.”

Using a Just Culture framework to analyze when things go wrong:

Where and why does Drift occur in your environment?

When things go wrong, how do people in your environment respond?

How Will You Apply These to Enhance Psychological Safety and Continuous Learning in Your Environment

(a) as a Team
(b) as an Individual

How does the team currently review and analyze instances where care or processes do not work or where there are patient safety issues?

How does that support or undermine psychological safety and continuous learning?

What might you do as a team to enhance psychological safety and continuous learning when things go wrong?

What specific actions might you take as an individual to promote the psychological safety on your team?

What does “leading with vulnerability” look like for you as a leader?