Just Culture Principles

A Response to Human Fallibility

Patient Safety and Just Culture

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Acknowledgement

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Information from a Three Day Course on Just Culture Concepts

Agenda

1330 - 1500
- Introduction to Just Culture
- Just Culture in Society
- Risk Management
- Three Behaviors

1500 - 1530
Break

1530 - 1700
- The Role of Event Investigation
- Building Cause-and-Effect Diagrams
- Working through scenarios
- Discussion

Patient Safety: The Public Debate Begins

- 1994–Error in Medicine
  Lucien L. Leape, MD

1999

2001

Fig. 1. Estimated Deaths Associated with Medical Errors:
Compared to Leading Causes of Death in the U.S.

Heart Disease: 1,717,914
Cancer: 545,284
Stroke: 165,306
Diabetes: 147,000
Kidney Disease: 100,000
Other: 191,000

5th leading cause
9th leading cause

191,000 = 3rd
Patient Safety: The Debate Continues

11/16/09—“There is little evidence to suggest that the number of people dying from medical harm has dropped since the IOM first warned about these deadly mistakes a decade ago,” said Lisa McGiffert, Director of Consumers Union’s Safe Patient Project.

Within health care hides massive, avoidable death toll
By CATHLEEN F. CROWLEY and ERIC NALDER HEARST NEWSPAPERS, 8/10/2009

One viewpoint...

“There are activities in which the degree of professional skill which must be required is so high, and the potential consequences of the smallest departure from that high standard are so serious, that one failure to perform in accordance with those standards is enough to justify dismissal.”

Lord Denning
English Judge

An Introduction to Just Culture

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

Dr. Lucian Leape
Professor, Harvard School of Public Health
Testimony before Congress on Health Care Quality Improvement

One viewpoint...

“People make errors, which lead to accidents. Accidents lead to deaths. The standard solution is to blame the people involved. If we find out who made the errors and punish them, we solve the problem, right? Wrong. The problem is seldom the fault of an individual; it is the fault of the system. Change the people without changing the system and the problems will continue.”

Don Norman
The Design of Everyday Things

An Introduction to Just Culture

“The proposition is this. Everyone owes to the world at large the duty of refraining from those acts that may unreasonably threaten the safety of others.”

In rendering a dissenting opinion related to liability in the case of Patzgraf v. the Long Island Railroad Company—Judge William S. Andrews, dissenting opinion (1928)

SOCIAL JUSTICE
“...No person may operate an aircraft in a careless or reckless manner so as to endanger the life or property of another.”

Federal Aviation Regulations § 91.13 Careless or Reckless Operation

“...As far as I am concerned, when I say "careless" I am not talking about any kind of "reckless" operation of an aircraft, but simply the most basic form of simple human error or omission that the Board has used in these cases in its definition of "carelessness." In other words, a simple absence of the due care required under the circumstances, that is, a simple act of omission, or simply "ordinary negligence,..." a human mistake.”

National Transportation Safety Board Administrative Law Judge Engen v. Chambers and Langford

The Problem Statement

Support of System Safety

Blame-Free Culture: What system of accountability best supports system safety?

Punitive Culture

As applied to:
- Providers
- Managers
- Institutions
- Regulators

Just Culture is About

- Creating and supporting a learning culture
- Creating an open, fair, and just culture
- Designing safe systems
- Managing behavioral choices

Our Beliefs About Risk Management

- To Err is Human
- To Drift is Human
- Risk is Everywhere
- We Must Manage in Support of Our Values
- We Are All Accountable
To Err is Human

To Drift is Human (at risk behavior)

To Drift is Human

Risk is Everywhere

Risk is Everywhere

What is Risk?

Risk = Severity x Likelihood

We Must Manage in Support of Our Values

Risk = Severity x Likelihood

Safety ~ Reasonableness of Risk
Our Values

- Overlapping Duties? Yes
- Competing Duties? Yes
- We Must Prioritize and Balance in Support of Our Values

We Are All Accountable

- Across All Departments
- Across All Positions
- Across All Behaviors
  - Human error
  - At-risk behavior
  - Reckless behavior

Reliability and Just Culture

Managing System Design

The Safety Task: Managing System Reliability

The Safety Task: Managing Human Reliability
Contributing factors and system design in managing risk

- "Make No Mistakes"
- Knowledge and Skill
- Performance Shaping Factors
- Barriers
- Redundancy
- Recovery
- Perception of High Risk

Contributing Factors

- Knowledge and Skill
  - Knowledge – what I know
  - Skill – the ability to apply the knowledge

Performance Shaping Factors
- Factors to directly manage the rate of human error
- Factors to directly manage the rate of At-Risk Behaviors
- Examples:
  - Stress
  - Fatigue
  - Lighting
  - Communication
  - Procedure design
  - Noise
  - Distraction
  - Graphical interface

System Design Strategies

- Barriers
  - Obstacle put in place to prevent an undesired outcome
  - Prevents the error from occurring
  - Prevents hazard from touching target
  - Examples:
    - Personal protective equipment
    - Covers/shields
    - Passwords
    - Deadman devices

Recovery
- Allows the error to occur
- Relies on ability to detect initiating event and correct before the critical undesired outcome
- Examples:
  - Downstream checks
  - Downstream tests
  - Making the error visible through feedback
System Design Strategies

Perception of High Risk

- Relies on individual’s ability to recognize that they are in a high risk situation
- Fosters focus on specific task being worked
- Acts to limit at-risk behaviors

Exercise

For each example below, describe the one or two principal design strategies used to manage the risk, then and now.

1. Needle Stick
   - 30 years ago:
   - Today:

2. Breach of patient privacy
   - 30 years ago:
   - Today:

3. Retained surgical instrument
   - 30 years ago:
   - Today:

4. Healthcare acquired infection
   - 30 years ago:
   - Today:

5. Back injury during lifting
   - 30 years ago:
   - Today:

6. Patient misdiagnosis leading to harm
   - 30 years ago:
   - Today:

Behaviors We Can Expect

- **Human Error**: an inadvertent action; inadvertently doing other that what should have been done; slip, lapse, mistake.
- **At-Risk Behavior (Drift)**: a behavioral choice that increases risk where risk is not recognized, or is mistakenly believed to be justified.
- **Reckless Behavior**: a behavioral choice to consciously disregard a substantial and unjustifiable risk.

Understanding Human Behavior

Managing Human Error

- **Two Questions**:
  - Did the employee make the correct behavioral choices in their task?
  - Is the employee effectively managing their own performance shaping factors?
- If yes, the only answer is to console the employee – that the error happened to them
- Then examine the system for improvement opportunities
Managing Multiple Human Errors

What is the Source of a Pattern of Human Errors?
- In the system? If yes, address the system.
- If no, can the repetitive errors be addressed through non-disciplinary means?

Managing Human Error/At Risk Behavior

Performance Shaping Factors
- Factors to directly manage the rate of human error
- Factors to directly manage the rate of At-Risk Behaviors
- Examples:
  - Stress
  - Fatigue
  - Lighting
  - Distraction
  - Communication
  - Graphical interface

Managing At-Risk Behaviors

- A behavioral choice
- Managed by adding forcing functions (barriers to prevent non-compliance)
- Managed by changing perceptions of risk
- Managed by changing consequences
- Examine the system for improvement opportunities

"The best car safety device is a rear-view mirror with a cop in it."

Dudley Moore

Managing Reckless Behavior

- Reckless Behavior
  - Conscious Disregard of Substantial and Unjustifiable Risk

Manage through:
- Disciplinary action
- Punitive action

The Three Behaviors
The Role of Event Investigation

The Basics of Event Investigation

What happened?
What normally happens?
What does procedure require?
Why did it happen?
How were we managing it?

Increasing value

California Commuter Train Wreck September 12, 2008

Reported Facts:
Fatalities – 25
Injuries – 130

Metrolink spokeswoman Denise Tyrrell said a preliminary investigation has shown that “it was a Metrolink engineer that failed to stop at a red signal and that was the probable cause” of the crash. The NTSB reported the engineer had sent text messages a minute before the crash.

California Public Utilities Commission issued an emergency order on September 18th banning train operators from using cell phones on duty.

Some railroads, including Metrolink, prohibit operator cell phone use on the job, but the commission’s president, Michael R. Peevey, has said the rules “are widely ignored.”

In 2003, the NTSB recommended that the Federal Railroad Administration regulate the use of cell phones after finding that an engineer’s phone use contributed to a fatal accident in Texas in May 2002.

Source: Associated Press
The Basics of Event Investigation

- Human error
- Violations
  - Rules that specify an outcome
  - Rules that specify a behavior
  - Mixed rules
- Mechanical Failures

Did the individual have a duty to act?

- Requires an understanding of the staff members’ roles & responsibilities
  - “The transporter hooked up the oxygen to the medical air by mistake.”
- Does the transporter have a duty to hook up the oxygen? What is their duty?

Understanding Causation

Causal Language

- Root Cause
- Direct Cause
- Probabilistic Cause
- Correlation

Root Cause

- The initiating cause of a causal chain; the earliest step in an causal chain where an intervention could reasonably be implemented to change the outcome
  - “A” initiated a causal chain resulting in “B”
- Typically a “systems” issue, including management decisions, resources, training, etc....

Direct Cause

- The cause is virtually certain to result in the effect
  - “A” directly caused “B”
- Example: The technician pulled the wrong part and installed it.
Probabilistic (Contributory) Causes

- The cause increases the likelihood of the effect

  “A” increased the likelihood of “B” occurring

  “Nurse Rivera was fatigued after working two eight hour shifts back-to-back, increasing the likelihood of an error.”

Two Meaningful Types of Cause

- Direct
  - Cause is virtually certain to result in the effect
  - Takes the form “A caused B”
  - Example: The pharmacy misstocking the drug cabinet caused the wrong drug to be given to the patient.

- Probabilistic
  - Cause increases likelihood of its effect
  - Takes the form “A increased the likelihood of B”
  - Example: The technician being distracted increased the likelihood that he would overlook the error.

Correlation ≠ Cause

- Correlation or association – An observed co-occurrence of two or more conditions.
- 98.5% of people involved in traffic accidents are wearing seat belts
- 63% of people killed in traffic accidents are not wearing seat belts

Building Cause and Effect Diagrams

The Process

- Start with outcome(s) on right side of page
- Work right to left identifying causal links
- One-to-one, one-to-many, and many-to-one are all allowable

Do not put non-causal data on the cause and effect chart

The Basic Structure
Diagram of a Case Study

Princess Diana’s Death

Outcome Selected: Death of Princess

- No guard rail in tunnel
- Diana not wearing seat belt

- Our desire for pictures of the stars
- Chased by Paparazzi
- Speeding
- Driver intoxicated

- We lead extremely boring lives
- Scotland Yard conspiracy
- Diana Dies
- French policy to treat at scene
- Flat

Princess Diana’s Death

- What problem are we solving through the investigation of this accident?
- What was the direct cause?
- What was the root cause?
- What behaviors contributed to the outcome?
- Who decides when an investigation is complete?
- What is the measure of an investigation’s success?

The Investigation of Princess Diana’s Death

- No guard rail in tunnel
- Diana not wearing seat belt

- Our desire for pictures of the stars
- Chased by Paparazzi
- Speeding
- Car hits pole

- We lead extremely boring lives
- Scotland Yard conspiracy
- Diana Dies
- French policy to treat at scene

“Cause and Effect”
(IV pump not started)

- Patient distracted the nurse with a personal request while the nurse was hanging an IV Piggyback.
- IV pump not set for the piggyback.
- Patient did not receive ordered medication.

Making Good Causal Statements

- What information do you have?
- What information is duplicative?
- What information is contradictory?
- What gaps exist?
- Create the “Causal Statement”
Resume Scenario

A new operations manager is found to have lied on his resume. He did not have the college degree that he showed on his resume.

An investigation of why this oversight has occurred found that a human resources clerk did not do the required background check. The human resources manager had never had a candidate lie about a college degree in their 8 years of managing, and simply told his overworked clerk to skip the check. Corporate policies require that the check be completed. Both the clerk and the manager were aware of the policy.

Housekeeping Scenario

A housekeeping worker was waxing the floors around 10:00 p.m. He could not find a wet floor sign and would have had to have gone to another building to search for one. Believing he was alone in the building, he did not search for a warning sign. An accountant slipped on the wet floor and severely damaged his knee. The housekeeping staff frequently had to search for the wet floor warning signs which caused them to get behind on their work. The manager was aware of the unavailability of signs, but did not take any action to purchase more.

Clinical Scenario 1

- Jeanie, a nursing student, lacks confidence in giving an IM medication to an infant in the nursery. She did well in the clinical lab, but has not given an infant an injection before. The nurse overseeing her, Sandy, inadvertently sticks Jeanie with the sterile needle prior to the injection. Jeanie does not report the needle stick to Sandy as she does not think it “went in very deep” and chooses to give the injection.
- Sandy comments to Jeanie that she was afraid that she had stuck her with the needle, and Jeanie then informs her that she did. Sandy asks her why she did not tell her, and she indicated that because the medication was in a single dose syringe, she thought she would be unable to change the needle and the risk of harm to the patient was not high.
- Parents are informed of the incident and want the nursing student taken out of the nursing program due to the harm to their baby girl. When the instructor investigates, she discovers that many of the student nurses had a previous nurse who oversaw them that told them not to worry with changing the syringe as the cost of wasting the medication was high.

Clinical Scenario 2

- Theresa, a nursing student, was to give an IM injection of Lovenox to the Betty Blue.
- She was supposed to double check the medication with the Nancy, the staff nurse, and the MAR, but she chose to not do the check as she was confident she could give it and she did not like Nancy.
- She had told other nursing students that Nancy did not know as much as she did. Unfortunately, Theresa gave the medication to Barbara Bean, who was in the same room.
Scenario 3

Nursing student had a 3 year old with a diagnosis of pneumonia assigned to her. The nursing faculty was providing oversight and monitoring the student as the physicians had reported multiple errors. The pediatrician came in to see the patient and asked the nursing student how the patient was doing. The nursing student chose to not access the medical record and mistakenly reported the vital signs as normal. The pediatrician was going to discontinue the antibiotics when the nursing faculty corrected the situation letting him know the nursing student had provided wrong vital signs, and the patient still had a slight fever.

What happened....

- Was this human error or did it involve a behavioral choice?
- What should happen based on the just culture model?

Questions?

Thank you!