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.

IOM – To Err Is Human - 1999
“Building safety into processes of care is a more effective way to reduce errors than blaming individuals.”

(IOM, 1999, p.4)
Analyses — 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 21207, 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.

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. 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. We focus on preventable lethal events to highlight the scale of potential preventable deaths. The most commonly cited estimate of annual deaths from medical error in the US—a 1999 Institute of Medicine (IOM) report—is limited and outdated. The report describes an incidence of 44 000–98 000 deaths annually. This conclusion was not based on primary research conducted by the institute but on the 1984 Harvard Medical Practice Study and the 1992 Utah and Colorado Study. But as early as 1993, Leape, a chief investigator in the 1984 Harvard study, published an article arguing that the study’s estimate was too low, contending that 78% rather than 51% of the 180 000 iatrogenic deaths were preventable (some argue that all iatrogenic deaths are preventable). This higher incidence (about 140 400 deaths due to error) has been supported by subsequent studies which suggest that the 1999 IOM report underestimates the magnitude of the problem. A 2004 report of inpatient deaths associated with the Agency for Healthcare Quality and Research Patient Safety Indicators in the Medicare population estimated that 575 000 deaths were caused by medical error between 2000 and 2002, which is about 195 000 deaths a year (table 1). Similarly, the US Department of Health and Human Services Office of the Inspector General examining the health records of hospital inpatients in 2008, reported 180 000 deaths due to medical error a year among Medicare beneficiaries alone. Using similar methods, Classen et al described a rate of 1.13%. If this rate is applied to all registered US hospital admissions in 2013...
Error In Our Evolving World
Charles’ Vincent Model based on Reason’s Swiss Cheese Model

Organisational accident model based on work by Reason

SYSTEMS
# David Marx’s Model of Error for Just Culture

<table>
<thead>
<tr>
<th>Human Error</th>
<th>At-Risk Behavior</th>
<th>Reckless Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadvertent action; slip, lapse, mistake</td>
<td>A choice; risk not recognized or believed justified</td>
<td>Conscious disregard of unreasonable risk</td>
</tr>
<tr>
<td>Manage through changes in:</td>
<td>Manage through:</td>
<td>Manage through:</td>
</tr>
<tr>
<td>• Processes</td>
<td>• Removing incentives for at-risk behaviors</td>
<td>• Remedial action</td>
</tr>
<tr>
<td>• Procedures</td>
<td>• Creating incentives for healthy behaviors</td>
<td>• Punitive action</td>
</tr>
<tr>
<td>• Training</td>
<td>• Increasing situational awareness</td>
<td></td>
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<tr>
<td>• Design</td>
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</tbody>
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| Console                                          | Coach                                                 | Punish                                     |

SYSTEMS
Increasing Transparency of Quality Data

HCAHPS
Hospital Consumer Assessment of Healthcare Providers and Systems
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
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.
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. Dyrbøe, MD, MHPE, Mayo Clinic; Tait D. Shanafelt, MD, Mayo Clinic;
Christine A. Sinsky, MD, American Medical Association; Pamela F. Cipriano, PhD,
RN, NEA-BC, FAAN, American Nurses Association; Jay Bhatt, DO, MPH, MPA,
American Hospital Association; Alexander Ommaya, DSc, Association of American
Medical Colleges; Colin P. West, MD, PhD, Mayo Clinic; David Meyers, MD, Agency
for Healthcare Research and Quality

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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 improvement. 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 intern medicine, neurology) are among the highest risk of burnout. Burnout is nearly twice as prevalent among physicians as US workers in other fields after controlling for work hours and other factors [1,2]. 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 inpatient nurses, 43 percent had high degree of emotional exhaustion [10]. A subsequent study of approximately 60,000 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]. The prevalence
What Second Victims Desire...
Team-training in healthcare: a narrative synthesis of the literature

Saffie J Weaver,1,2 Sydney M Dy,3 Michael A Rosen1

ABSTRACT
Background Patients are safer and receive higher quality care when providers work as a highly effective team. Investment in optimizing healthcare teamwork has spilled over in the last 10 years. Consequently, evidence regarding the effectiveness of these interventions has also grown rapidly. We provide an updated review concerning the current state of team-training science and practice in acute care settings.

Methods A PubMed search for review articles examining training interventions in acute care settings published between 2000 and 2012 was conducted. Following identification of relevant reviews, with searches terminating in 2008 and 2011, published and prepub the search was extended to 2012. Primary outcomes included patient outcomes and quality indices. Secondary outcomes included team behaviors, knowledge, and attitudes.

Results Both simulation and classroom-based team-training interventions can improve teamwork processes (eg, communication, coordination, and cooperation) and implementation has been associated with improvements in patient safety outcomes. Ten studies published between 2001 and 2012 reported statistically significant changes in teamwork behavior, processes or emergent states and 10 reported significant improvement in clinical care processes or patient outcomes, including mortality and morbidity. Effects were reported across a range of clinical settings. Larger effect sizes were reported for bundled team-training interventions that included tools and organizational changes to support sustained and transfer of teamwork competencies into daily practice.

Conclusions Overall, moderate- to high-quality evidence suggests team training can positively impact healthcare team processes and patient outcomes. Additionally, tools and training are available to support intervention development and implementation. Evidence suggests bundled team-training interventions and implementation strategies that embed a specific intervention as a foundation for other improvement efforts may offer greater impact on patient outcomes.

INTRODUCTION
...It has become necessary to rely on teamwork as a core competency that is essential for high-quality and safe care. Teamwork is defined as a process whereby a group of individuals with different competencies work together toward a common goal (1). The importance of teamwork in healthcare settings is recognized by the Institute of Medicine (2) and has been highlighted in the Joint Commission’s National Patient Safety Goals (3). Teamwork is a complex and dynamic process that involves communication, coordination, and cooperation among team members. Effective teamwork is essential for achieving optimal patient outcomes.

Teamwork in healthcare settings has been shown to improve patient safety and quality of care (4-6). Multiple studies have demonstrated the benefits of team training, including improvements in communication, coordination, and cooperation (7-9). Team training interventions can be delivered in various formats, including simulation, classroom-based training, and mixed methods (10). The effectiveness of team training interventions is dependent on the type of training delivered, the target audience, and the implementation strategies used. The purpose of this review is to provide an overview of the current state of team training science and practice in acute care settings.
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 event? 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?