Failing Well: Small and Large Lessons for Individual Survival and Organizational Quality
Anita L. Tucker
Lumry Family Assistant Professor of Business Administration
Harvard Business School
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Papers that this talk draws upon


Nurse Irene’s day in the Intensive Care Unit
Patient on ventilator, vent setting turned down as an experiment
- 9:10 Missing container for sputum sample
- 9:25 Try to give bath, but no towels
- 9:30 Prepare for triple lumen insertion, but doesn’t know what kind of supplies the surgeon will want
- 2:10 P.M. Lab lost sputum sample, need to redo

Other Examples
- (Pharmacy) Physician order sheets come to pharmacy with no patient identifiers on them. Pharmacist takes sheet to nurses station and asks ward clerk to verify who the order is for
- (Physician) Resident tried to contact Attending – patient bleeding – Urology Attending not responsive

Definition
OPERATIONAL FAILURE
An employee
1) cannot effectively complete a task because a necessary element is unavailable
   - or -
2) completes a task that is unnecessary or incorrect

Examples of Operational Failures on Nursing Units

Need for Hospitals to Learn from Failures
- Most hospitals face financial difficulties
- Operational failures waste caregiver time and resources
- Poor working conditions cited as cause for nursing shortage – 126K vacancies in the US
- Medical accidents 44,000-98,000 deaths/yr
Most medical errors are systems related, not due to individual negligence or misconduct.
Improving operating systems can reduce errors.

8 The Importance of Learning from Operational Failures
Many minor incidents lining up in bad way
Attention to operational failures can increase reliability Weick, Sutcliffe and Obstfeld 1999, Roberts 1990
Organizations vary in perception of—and ability to respond to—failures Edmondson 1996, MacDuffie 1997

9 Methods to Understand Failures and Responses
Observe operational failures and employee response
239 hours of 26 nurses at 9 hospitals
Detailed transcripts of events & context
In-depth interviews with 12 nurses
Code transcripts for failures, response
Interrater reliability and match with interview data
Also, survey data from 48 nursing units, including manager ratings of the unit's level of “front line systems improvement”

10 Results: Details on Failures -
Problems
88% surface during preparation for patient care
91% from breakdown in information or materials to nurse
5/12 nurses interviewed – “The daily problems we face are from outside our own unit – It is a system problem.”
Front line employees well-positioned to learn from failures
Takes an average of 33 minutes/ shift of nurse’s time

Errors
Nurse – 39%
Other people – 18%
Faulty process flows – 43%

Harder to recognize at the time
Can be more risky to verbalize

11 Triangulation of Data on Failures

12 Typical response:
First-Order Problem Solving
93% of the responses to failures
Characterized by:
Focus on patching failure so immediate task at hand can be finished
Fix it on his or her own whenever possible.
If help is needed, ask friend first, then colleague, only when unavoidable, manager or doctor

13 Unintended consequences of first-order problem solving
Contributes to problem occurrence
Similar situations may occur in the future
Can cause another failure
Hinders organizational learning
- Person who contributed to the failure does not know about it - not given the opportunity to learn
- Lose information about
  - Frequency of failures
  - Cost of failures
  - Root causes

14 Quote illustrating lack of learning from FOPS
“We never told the pharmacy when we got a dose of medicine that was more than we requested. We just squirted out the extra because we figured they were busy, they had not intended to make the mistake, and they wouldn’t do anything about it anyway. It was sad really because we weren’t letting them have the information so they could fix their own problems.” - Nurse Hosp #8

15 Why was first-order problem solving so dominant?
- Not because of...
  - Ill-defined or challenging problems
  - Lazy, uncommitted workforce
- But rather...
  - Emphasis on individual vigilance (no system)
  - Unit efficiency concerns (lack of time)
  - Empowerment (lack of help)

16 Gratification from FOPS
“Working around problems is just part of my job. By being able to get IV bags or whatever else I need, it enables me to do my job and have a positive impact on a person’s life – like being able to get them clean linen. And I am the kind of person who does not just get one set of linen, I will bring back several for the other nurses.”
- Oncology floor nurse

17 Burnout from FOPS
“I put my heart and soul into my role as a nurse and my reward is patent satisfaction. Therefore I would never quit my job. I do feel that sometimes I am working with one hand tied behind my back. Tied by lack of equipment, supplies and auxiliary help. My job is physically demanding, so much so I don’t know how I will be able to continue until retirement.” Hospital 4

19 Alternative response:
Second-Order Problem Solving
Characterized only 7% of the problems
Do what it takes to continue task AND expend effort to remove underlying cause
- Communicating problem occurrence
- Suggesting countermeasures
- Experimenting with countermeasures

ICU Bed example
“I don’t want to get anyone in trouble, but I want you to know what happened so you can talk to the nurse so that it does not happen again.”

20 Facilitating a learning response
Manager availability and supportiveness
- Physical presence increased communication about failures
- Relieve time pressure – designated resource for problem solving
- Role model – What do we need to do so it doesn’t happen again?
- Psychological safety – no fear of punishment
- Problem solving efficacy
  - Confidence that organization will respond to communication or efforts

Summary
- Two kinds of response to operational failures
- First-order problem solving dominates
- Managers can help reduce barriers to learning
  - Psychological safety
  - Creating systems for resolving failures
  - Increase employee’s confidence that problem solving efforts will be fruitful
- Requires a reframing of what employee behaviors are valuable