



Mistakes Were Made, But Not By Me...

Cognitive Bias & Accident Theory in Healthcare

with Lisa A. Miller, CNM, JD

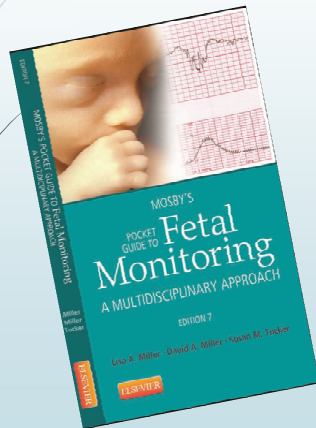


Disclosure

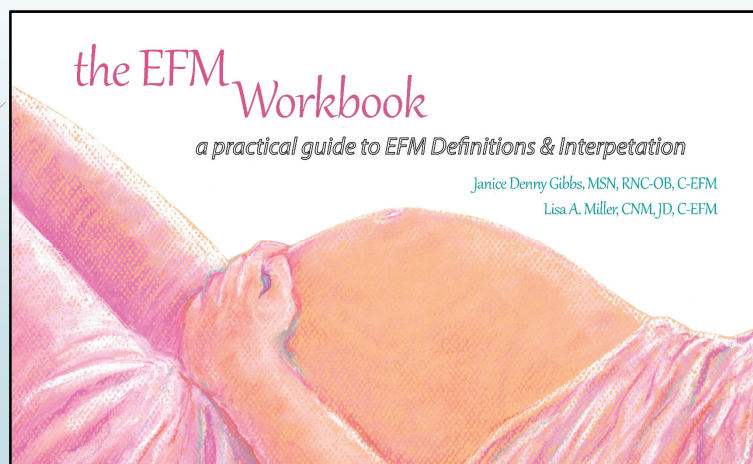
I wish to disclose my relationship with Clinical Computer Systems, Inc., as a consultant and co-developer of their “E-Tools” software.

And while I served on the BOD for AWHONN, from 2016 through 2018, nothing I say in this presentation should be construed as the opinions or positions of AWHONN

Additionally, I am co-author of two EFM textbooks



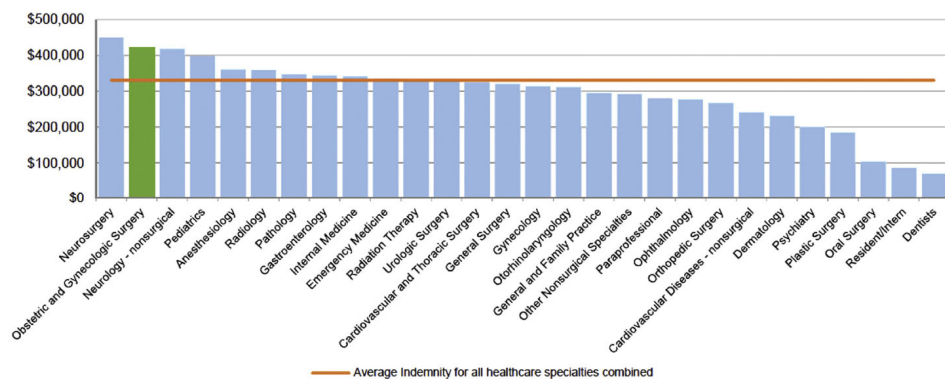
And the EFM workbook, a companion workbook to the Mosby Pocket Guide, allowing practice with NICHD terminology & tracing interpretation



Disclaimer

- I am providing this program as an educator, not as an attorney. Nothing in this program or the program materials should be construed as legal advice.
- If you are in need of legal or risk management advice, please retain a practicing attorney or speak with the risk management department of your institution.

AVERAGE INDEMNITY BY HEALTHCARE SPECIALTY (2005-2014)



Average indemnity for paid medical claims from 2005 through 2014, subdivided by medical specialty and ranked by cost.
Glaser et al. Trends in obstetric and gynecologic malpractice claims. Am J Obstet Gynecol 2017.

Obstetric practice remains high liability

Critical Thinking Concepts for Clinicians

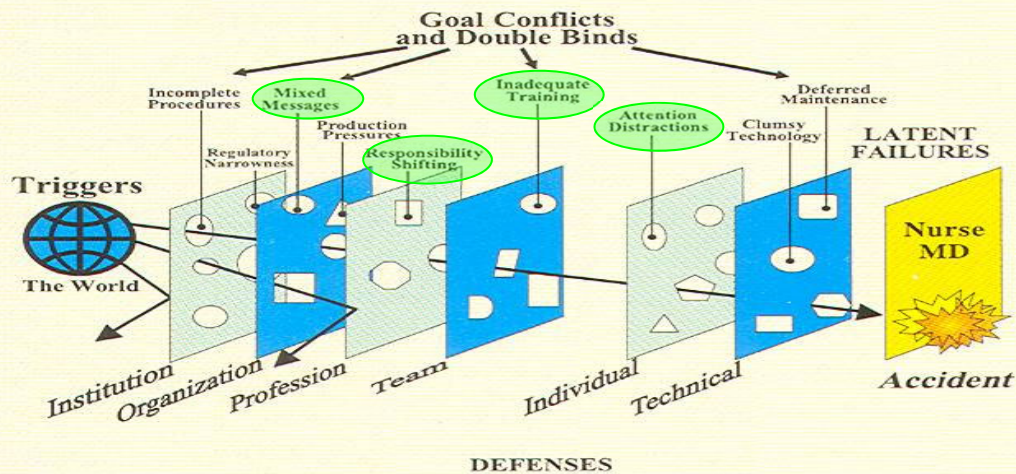
- The examination of beliefs or knowledge in light of the evidence that supports it
- Involves an ability to gather and interpret data and apply principles of logic
- Requires familiarity with cognitive bias and the potential problems with bias in clinical practice
- Requires an ongoing commitment to evaluation of processes and beliefs in light of new and developing evidence; an ability to alter practice patterns and challenge assumptions when the evidence warrants

Human Factors Approach

- TJC cites communication as the most frequent source of error in perinatal care
- Looks at systems, versus individuals
- Avoids “blaming” and seeks prevention strategies to avoid future errors
- Differentiates between active failures (the sharp end) and latent failures (administration, design, training, etc.)
- Illustrated best by the “Swiss Cheese” model of organizational accidents described by Reason

Figure 2.

Swiss Cheese Model



Types of Errors

Slips or Lapses

most medication errors

Rule-based errors

protocols, standardization

Knowledge-based errors

lack of knowledge vs. expert error

Are we any
different?

Review

March 27, 2019

Potential Consequences of Patient Complications for Surgeon Well-being A Systematic Review

Sanket Srinivasa, PhD, FRACS¹; Jason Gurney, PhD²; Jonathan Koea, MD, FRACS¹

» [Author Affiliations](#)

JAMA Surg. Published online March 27, 2019. doi:10.1001/jamasurg.2018.5640

Key Points

Question What role do patient complications play in surgeon well-being?

Findings This systematic review of 9 studies (10 702 unique participants) demonstrated that the occurrence of patient complications adversely affected surgeons' psychological well-being and their professional and personal lives.

Meaning Results of this study suggest that patient complications adversely affect surgeons' health, and departments, institutions, and professional organizations must acknowledge this and develop strategies to educate and support surgeons in managing this part of their professional lives.



From “Silence Kills”

- 53% of nurses were concerned about a peer's competence, yet only 12% had discussed it
- 34% of nurses were concerned about a doctor's competence, less than 1% had spoken about it
- These held true even when direct harm had been witnessed

From “Silence Kills”

- 81% of doctors were concerned about a nurses's competence, yet only 8% had discussed it
- 68% of doctors were concerned about a peer's competence, less than 1% had spoken about it
- These held true even when direct harm had been witnessed

VitalSmarts, AORN, & AACN present:

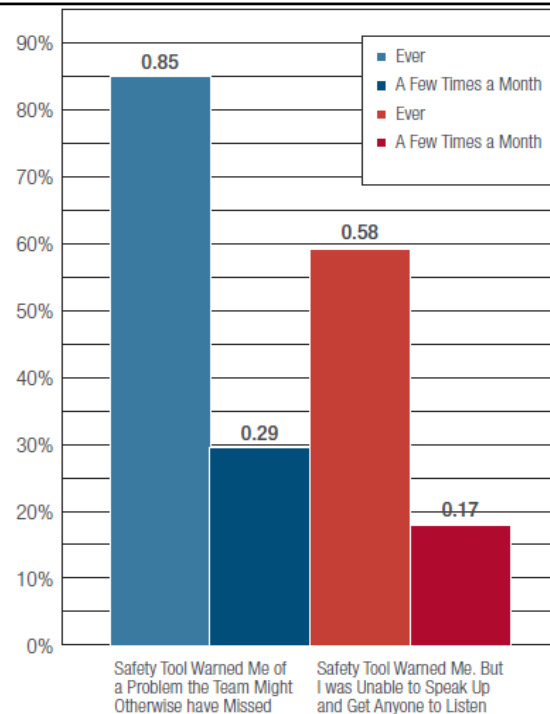
The Silent Treatment

Why Safety Tools and Checklists Aren't

David Maxfield, Jose



Imagine you are a nurse who has been given a set of new safety tools that warns you whenever your patients are in danger. That would be powerful, life-saving information, right? But what if nobody listened to you or heeded your warnings? This kind of breakdown is happening in hospitals every day. The quote below is one of 681 collected in the course of this research.



Communication failures and lack of a shared mental model continue to be core issues

Results

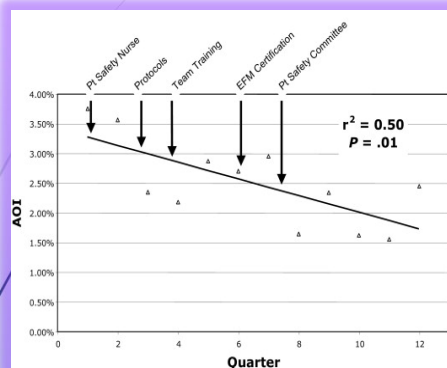
Of the 211 identified contextual communication failures, errors of omission were the most common (27.0%). More than half of conceptual failures were transfer of information failures (58.4%), while 41.6% demonstrated a lack of shared understanding. Of the 179 identified outcomes, 38.0% were delays in care, 20.1% were physical harm, and 8.9% were dissatisfaction. There was no statistically significant association between failure type category and patient outcomes.

Safety and Standardization

- Fetal monitoring interpretation, labor management, and obstetric hemorrhage prevention/management continue to be common safety issues
- However, to paraphrase Dylan, the times they are a changin' - most safety initiatives in OB have included EFM education for all clinicians, and standardization of obstetric practice with an emphasis on understanding maternal mortality has proven to be effective in reducing risk and improving outcomes.

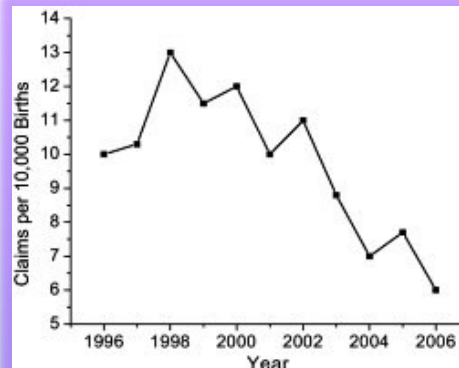
Standardization can reduce adverse outcomes & professional liability claims

Impact of a comprehensive patient safety strategy on obstetric adverse events



Pettker Am J Obstet Gynecol. 2009;200:492.e1-8

Reducing obstetric litigation through alterations in practice patterns



Clark SL Obstet Gynecol. 2008 Dec;112(6):1279-83.

In-house obstetric coverage
Medication protocols
VBAC protocols
Shoulder dystocia protocols

But there is still work to be done

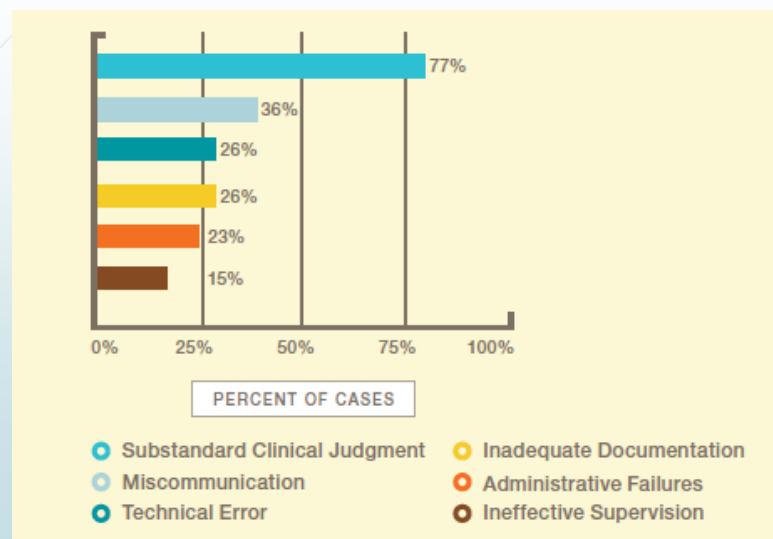
TABLE

Near-miss events in labor and delivery

Error type	No. (%)	Hazard score
Medication error	120 (33)	3
Patient identification	95 (19)	2
Failure/delay in obtaining laboratory	57 (11)	6
Failure to respond	49 (10)	15
Failure to follow policy/protocol	46 (9)	9
Charting error	31 (6)	2
Equipment failure	28 (6)	5
Slip/fall	27 (5)	11
Information transfer	23 (5)	10
Physician performance error	14 (3)	17
Incorrect test ordered	7 (1)	1
Inadequate staffing	4 (<1)	12
Error in test interpretation	2 (<1)	3
Wrong procedure ordered	3 (<1)	4
Laboratory error	3 (<1)	1
Retained foreign body	3 (<1)	5

Clark. Identification and classification of near-miss events on labor and delivery. Am J Obstet Gynecol 2012.

Underlying Causes/Contributing Factors



Source: CRICO Strategies 2010 Annual Benchmarking Report

	Hospitals with <2,000 births/year	Hospitals with >2,000 births/year
	PERCENT OF CASES	
DELAY IN TREATMENT OF FETAL DISTRESS	25 %	19 %
IMPROPER PERFORMANCE OF OPERATIVE VAGINAL DELIVERY	15 %	18 %
IMPROPER MANAGEMENT OF PREGNANCY	13 %	20 %

Volume based variations

Source: CRICO Strategies 2010 Annual Benchmarking Report

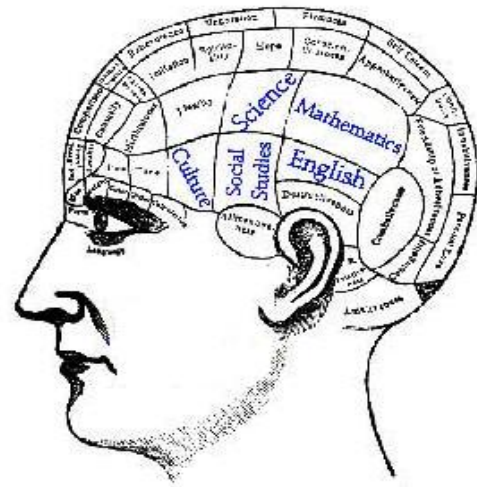


Have you ever felt this way when trying to gently point out to a team member that they may have made a mistake or that there may have been a better approach?

Why is it so hard to reduce error?

What if I told you it
was actually the way
we are wired-

That's right, it's our
brains that make it
difficult, and most of
us are not even
aware of it!!



THINKING, FAST AND SLOW



DANIEL
KAHNEMAN

WINNER OF THE NOBEL PRIZE IN ECONOMICS

Two types of thinking

SYSTEM 1

- Fast/automatic/easy
- Performs familiar or practiced routines
- Fine for small talk
- Undemanding
- Can perform while tired, sick or stressed
- Impressions/intuitions/feelings
- Susceptible to errors

SYSTEM 2

- Slow/effortful/hard
- Necessary for novel decisions or routines
- Useful for harder questions
- Tiring/draining
- Impaired by fatigue, illness or stress
- Logic/analysis/reflection
- Can override errors through careful thought

Three quick questions

1. A bat and a ball cost \$1.10 in total. The bat costs \$1.00 more than the ball. How much does the ball cost?
____ cents
2. If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets?
____ minutes
3. In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half the lake?
____ days

Heuristics & Cognitive Biases

- Heuristics are “mental shortcuts” – patterns of thinking we have developed that allow us to reach conclusions quickly – they are unconscious and automatically employed.
- Cognitive biases are predispositions that can make heuristics fail; ways in which our thought is irrational and prone to error.
- Recognizing cognitive biases in clinical decision-making is key to safety and improved outcomes.

Cognitive Dissonance

- The emotional discomfort human beings feel when they try to hold 2 disparate ideas, beliefs, or opinions in their mind at the same time.
- As our mistakes become more serious, the emotional and mental discomfort we feel becomes more intense, and we turn to amazing feats of self-justification to eliminate or reduce the tension.

Other impediments to change

- “Status Quo Bias” – the tendency for people to like things to stay relatively the same.
- “Outcome Bias” – the tendency to judge a decision by its eventual outcome instead of based on the quality of the decision at the time it is made.

Other impediments to change

- “Projection Bias” – the tendency to unconsciously assume that others share the same or similar views, knowledge, or beliefs.
- “Bias Blind Spot” – the tendency not to compensate for one’s own cognitive biases.

Bandwagon Effect

- The tendency to do or believe things because many other people do or believe the same.
- Related to the concepts of groupthink, herd behavior & manias.
- Many common birth practices are related to this bias.

Attention Issues

- **Sustained attention** - the ability to maintain a focus on the current task, even in situations of little intrinsic interest or motivation.
- **Selective attention** - the ability to focus on relevant aspects of a stimulus or task, immune to distraction.
- **Control of attention** - including, for example, the ability to switch attention between different tasks, or inhibit actions that are well-learned or automatic but inappropriate with respect to the current goals.

Two Key Strategies for EVERYONE

Competency assessment & ongoing training

- Be open to recognizing limitations/knowledge gaps
- Embrace proving competency
- Use training to force habituation of skills

Improve communication skills

- Multidisciplinary and interdepartmental training
- Recognize cultural and disciplinary barriers to effective and open communication
- Never forget cognitive dissonance and projection bias when discussing clinical issues!

2015 Institute of Medicine Report

► Recommendation 5: Health care organizations should:

- Adopt policies and practices that promote a nonpunitive culture that values open discussion and feedback on diagnostic performance.
- Design the work system in which the diagnostic process occurs to support the work and activities of patients, their families, and health care professionals and to facilitate accurate and timely diagnoses.
- Develop and implement processes to ensure effective and timely communication between diagnostic testing health care professionals and treating health care professionals across all health care delivery settings.

IMPROVING DIAGNOSIS IN HEALTH CARE

QUALITY CHASM SERIES

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

IOM Recommendations

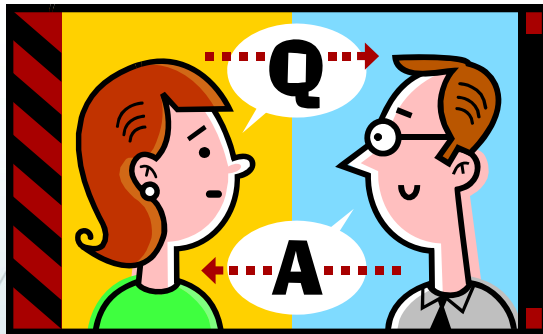
BOX S-1

Goals for Improving Diagnosis and Reducing Diagnostic Error

- Facilitate more effective teamwork in the diagnostic process among health care professionals, patients, and their families
- Enhance health care professional education and training in the diagnostic process
- Ensure that health information technologies support patients and health care professionals in the diagnostic process
- Develop and deploy approaches to identify, learn from, and reduce diagnostic errors and near misses in clinical practice
- Establish a work system and culture that supports the diagnostic process and improvements in diagnostic performance
- Develop a reporting environment and medical liability system that facilitates improved diagnosis by learning from diagnostic errors and near misses
- Design a payment and care delivery environment that supports the diagnostic process
- Provide dedicated funding for research on the diagnostic process and diagnostic errors

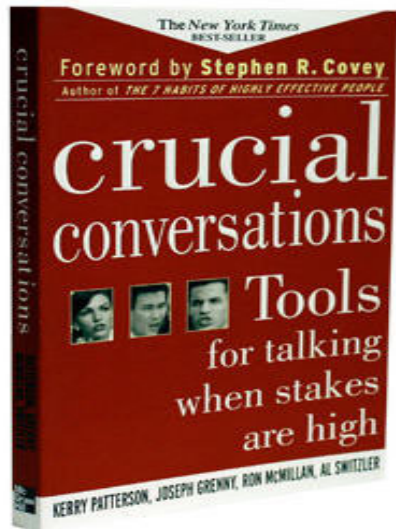
Just a Routine Operation

- This short film should be mandatory viewing for every clinician, in every setting
- As you watch the film, think about the errors you see, try to identify some of the cognitive issues at work – what contributed to the issues?
- Think about what could have been done differently, what suggestions would you have for prevention/risk reduction?



Key Safety Tool!!
Right under your nose!!

Lessons from Industry



- Finally! An easy to read, easy to learn system for learning and applying true communication skills to every relationship
- Let's talk about a few key concepts

What is a “Crucial Conversation”?

“A discussion between two or more people where (1) stakes are high, (2) opinions vary, and (3) emotions run strong.”

Ineffective Responses

Silence

- Masking
- Avoiding
- Withdrawing

Violence

- Controlling
- Labeling
- Attacking

Three Simple Principles

- **Communication Principle #1:** It's not you against them, it's you against you!
- **Communication Principle #2:** Don't take it personally.
- **Communication Principle #3:** Know what you are talking about before you start talking.

Absent variability is defined as...

1. 0-2 BPM
2. Less than 0-3 BPM
3. Less than 5 BPM
4. Undetectable

Tachysystole...

1. Is defined as >6 contractions in 10 minutes, averaged over a 30 min. window
2. Requires abnormal FHR changes before clinical response
3. Requires an IUPC to correctly diagnose
4. Applies to spontaneous as well as stimulated labor
5. Is significant only with Category II or III tracings.

Prolonged latent phase is...

1. Greater than 12 hours regardless of parity
2. 20 hours or more in a multiparous woman
3. 25 hours or more in a nulliparous woman
4. 14 hours or more in a multiparous woman

What can we do as we move forward?



Recognize the impact of cognitive dissonance and various cognitive biases



Don't be afraid of knowledge gaps, we can assume they are there, find them and work together to correct them



No more silos! Physicians, midwives, and nurses need to work and train *together*