

Morgan et al (2015) drivers of overuse - Patients

Extrinsic

- Advocacy groups

Three ways de-implementation is *different*

- *Outcomes* may be different
 - Unintended consequences
- *Heuristics* & routines exist
 - Have to be suppressed while forming new
- (Underlying) *Cause*
 - It's the same... but we approach it like it's not

Outcomes

- Outcomes may be different - hx, cultural context (Prusaczyk et al 2020)



Outcomes - unintended consequences

- Overuse, by definition, has constituencies
 - Financial, professional, political (Norton & Chambers 2020);

Outcomes - unintended consequences

“The football team at my high school, they were tough. After they sacked the quarterback, they went after his family.”

RODNEY DANGERFIELD

- Thornton Melon, Back to School

Outcomes - unintended consequences

- 1995 Agency for Health Care Policy and Research (AHCPR--now AHRQ) nearly defunded over lower-back treatment guidelines (Schlachter 2017; Deyo 2008)
 - Deyo lecture <https://bit.ly/2ASDup5> @ 2008
 - Birnbaum lecture <https://bit.ly/2MJ3d5Z>

Unintended consequences

- Psychological reactance = negative cognition when individual feels their freedom or prerogative is threatened (Quick et al 2007; Clee & Wicklund 1980)
 - Mistrust, counter arguing
 - Anger, irritation
- Imprudent efforts to deprescribe could cause patients to become broadly mistrustful

Counter-arguing

MONEY

'This isn't about the mask, it's about control': Costco customer asked to leave after refusing to wear a face covering

Josh Rivera USA TODAY

Published 7:16 p.m. ET May 20, 2020 | Updated 5:42 p.m. ET May 22, 2020



Doctors' new coronavirus threat: Patients who refuse to wear masks

Health care workers don't want to fight the mask culture war, but they're being forced to.

By Lois Parsley | May 21, 2020, 3:40pm EDT



Anger

CNN US Crime + Justice Energy + Environment Extreme Weather Space + Science

LIVE TV Edition



News & Politics (13 Videos)

Man refusing to wear mask breaks arm of Target employee

Two men were arrested for felony battery after starting a fight with employees at a Los Angeles Target store over wearing masks inside the store. Source: CNN



Dilemma: Challenge an idea without attacking

- The more people feel attacked, the more likely they are to harden their position
 - Book: *Being Wrong* by Kathryn Schulz
- Example from meta-analysis of audit-and-feedback (Kluger & DeNisi 1996)
 - 1/3 of audit & feedback associated w/ worse quality
- One reason why efforts characterize those to adopt/implement, e.g., laggards (Rogers 2005), is so fraught.

Concern over patient resistance

- Providers report patient ambivalence / resistance about deprescribing (Anderson et al 2014; Stryczek et al 2019)
- May not materialize, but could still be barrier (Stryczek et al 2019; Parikh et al 2020)

Interviewer: “Could you give me an example of a time when that conversation happened?”

Provider: “With this specific drug? No. But it happens all of the time.”

Heuristics & routines

- Overuse requires overcoming
 - Individual-level heuristics/habits/mental models
 - Organizational-level routines

Existing heuristics & routines

- Much of our behavior driven by heuristics (Kanneman 2008)
 - System 1: fast, efficient, intuitive, based on learned mental models, subconscious, (largely) automatic
 - System 2: slow, effortful, reflective, conscious, deliberate & (potentially) corrective
- Most behavior system 1

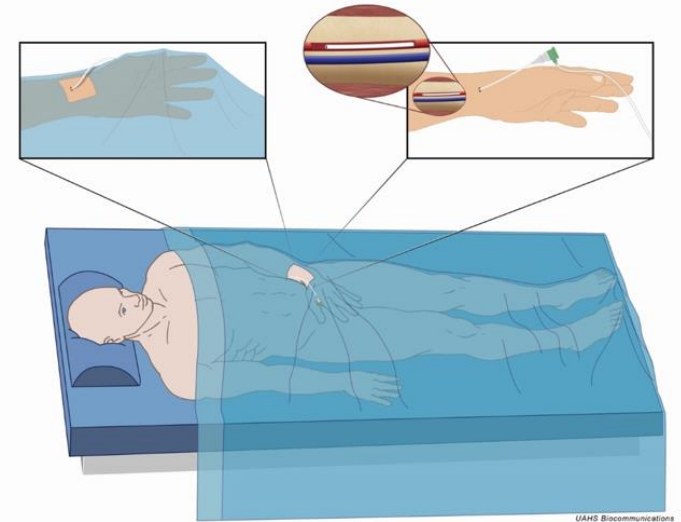
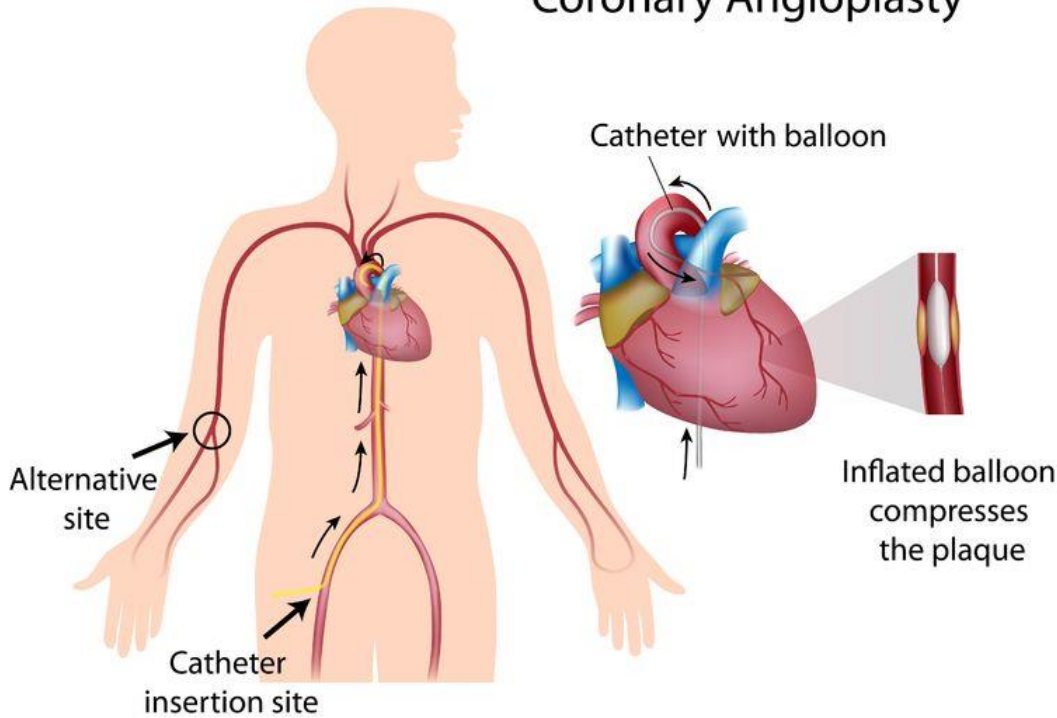


De-implementation = suppressing heuristics

- De-implementation = learning new heuristics & unlearning old heuristics
- Volume/complexity of knowledge exceeds our capacity to retain
 - Guidelines have become more complex;
 - We use heuristics to deal with complexity; we fall back on defaults
 - Organizational routine is analogous (Fiol & O'Connor 2017a, 2017b)

Routines are organizational analog

Coronary Angioplasty



(Underlying) *Cause* - Knowledge expires

- Continual evolution of knowledge: The half-life of facts
- Much of what we know to be true today will turn out to be inaccurate or false
 - Episiotomy
 - Pre-frontal lobotomy for anxiety, terminal cancer
 - Radical mastectomy
 - PCI for angina
- Half life of facts in surgery calculated to be approximately 47 years (Hall et al, 1997)

(Underlying) *Cause* - Brandolini's Law

- A.K.A. the *bullshit asymmetry principle*
- “...the amount of energy needed to refute bullshit is an order of magnitude bigger than that needed to produce it.” (Williamson 2016)

Learning Healthcare System

- Setting expectation knowledge will change; is normal
- Creating systems for re-evaluating practices
 - Embedded research (Damschroder et al, in press)
 - Lessons from combatting groupthink, e.g., formalizing counter-argument (Janis 2008)
- May need a higher bar for accepting findings
- Creativity/innovation through automaticity (Lemov 2012)

Why it *matters*

- Taking into account unintended consequences
 - Anticipating; measuring; strategies to mitigate
- Heuristics/routines
 - Taking into account systems that need to change around the clinician
 - Creating space for unlearning
- Learning Healthcare System
 - Presenting/thinking about overuse differently
 - Structures, e.g., embedded research



THANK YOU

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Concern over patient resistance

- At same time, patients in US focus groups (Schleifer and Rothman 2012)
 - Awareness of potential for too many medications
 - Open to deprescribing medications
- Patients and caregivers oppose medication deprescription when: Perceived medically appropriate; feel benefit/lack of harm; had previous negative medication withdrawal (Reeves et al 2016)
- Strategies: Trial period; engage in dialogue (Parikh et al, 2020)

Challenges of evidence-based knowledge

- Half life of facts in surgery estimated to be approximately 45 years (Hall & Platell, 1997)
 - “5 years ago it was suggested that: prefrontal lobotomy usefully altered patients' reactions so that "no anxiety, fear, or concern over their impending death from cancer was manifest"[3];
 - "in primary malignant hypertension the malignant phase may disappear" after lumbodorsal sympathectomy[4];
 - and, the detection of a gastric ulcer was "a strong indication for immediate operation"[5]

At least 7 lit reviews on factors associated with low-value care or interventions to reduce it*

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- Systems of care, e.g., HMO vs. fee-based, and low-value care (Keyhani et al 2013)
- Not associated

At least 7 lit reviews on factors associated with low-value care or interventions to reduce it*


- Scoping review: 44 articles on facilitating; on 2 on sustaining (Niven et al 2015)
- 30% on Dx de-implement

At least 7 lit reviews on factors associated with low-value care or interventions to reduce it*

- Systematic review of supply vs. demand-side interventions (Colla et al 2017a)
- 84 studies tested intervention effectiveness
- Most effective (by number):
 - Clinical decision support;
 - Multicomponent
 - Provider education & patient education;
- 56% targeted meds vs. 12% radiology & 10% labs/path

At least 7 lit reviews on factors associated with low-value care or interventions to reduce it*

- Narrative review on cognitive bias & overuse (Scott et al, 2017)
- Small number (n=5) on behavioral nudges



“Properly speaking, there is no certainty;
there are only people who are certain.”

—CHARLES RENOUVIER, *ESSAIS DE
CRITIQUE GÉNÉRALE*”



To be positive is to be mistaken at the top of
one's voice.

--Ambrose Bierce

Different types of de-implementation

Reversal		Replacement	
Partial	Complete	Related	Unrelated
Reducing frequency, breadth or scale of outmoded practice, so that it is provided to a narrower subgroup of patients.	Universal discontinuation of ineffective practice.	Substitution of existing practice, replaced by a closely related and more effective intervention.	Substitution of existing practice, replaced by a more effective intervention that is unrelated to usual care.