





Disclaimer

President-Elect, Alabama State Society of Anesthesiologists- the views expressed in this presentation are my own and do not necessarily reflect the views of the Alabama State Society of Anesthesiologists

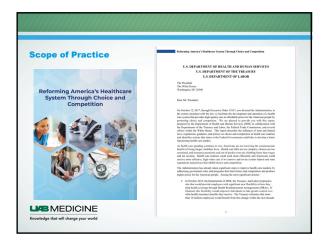
Outline

- Why Should I Care?
- Evidence for Collective Intelligence
- Comparison to Similar Models
- Application in UAB Department of Anesthesiology and Perioperative Medicine
- Conclusion/Questions

Knowledge that will change your world

Why should I care?

- Increasing reliance on teams from a variety of specialties to care for patients
- Increased incidence of complexity and specialization of care
- Increasing comorbidities/incidence of chronic disease
- Initiatives for safer working hours
- Our healthcare system is not as safe, effective, efficient as it should be
- We harm patients every day
- Ongoing "scope of practice" political battles across the nation



Scope of Practice

APRNs' scope of practice varies widely "for reasons that are related not to their ability, education, or training, or safety concerns, but to the political decisions of the state in which they work " -pg 33



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Scope of Practice

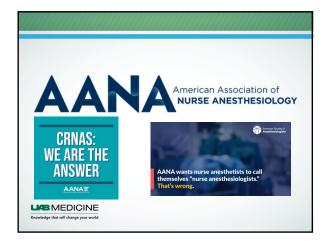
"...states should consider changes to their scope of practice statutes to allow all healthcare providers to practice at the top of their license ... "

"...states should consider eliminating requirements for rigid collaborative practice and supervision agreements between physicians and their care extenders that are not justified by legitimate health and safety concerns..." -pg 35

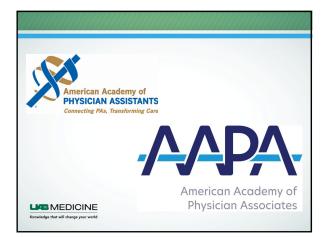
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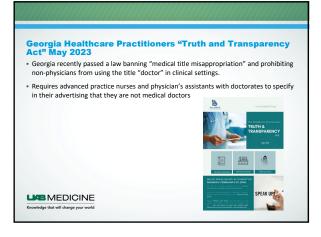


AMA Response

9 WHEREAS, Many physicians are reporting misappropriation on their titles by the use of 10 professional terms, titles, or other descriptors by non-physician providers, such as by the 11 addition of the specialty-specific "-ologist" nomenclature ("anesthesiologist," "dermatologist, 12 cardiologist," etc.), addition of the word "surgeon," or substitution of the word "associate" for 13 "assistant," thus describing themselves as "nurse anesthesiologists, "aesthetic surgeons," 14 "nurse dermatologists," "optometric surgeons" or "physician associates," etc., and by using such 15 terms in personal, practice, marketing, and public communications RESOLVED, That our AMA advocate "Truth & Transparency" legislation that would combat 14 medical title misappropriation; that such legislation would require non-physician healthcare 15 practitioners to clearly and accurately state their level of training, credentials, licensing board, 16 and practice qualifications in all professional interactions with patients 14 me incensing uodra, to and practice qualifications in all professional interactions with patients including hospital and 17 other health care facility identifications, as well as in advertising and marketing materials; and 18 that such legislation would prohibit non-physician healthcare practitioners from using any 19 identifying terms (i.e. doctor, -ologist) that can mislead the public (Directive to Take Action). AMARICAN MEDICAL

M E D I C A L ASSOCIATION

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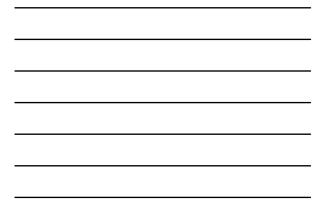


patient satisfaction, significat	esult in positive patient-centered outcomes including high to very high nt reduction in the surgical waiting list times, minimal or similar to physician-performed surgeries, and similar or better quality of performed surgeries.
	surgeons include urology, paediatric urology, gastroenterology
	surgeons include urology, paediatric urology, gastroenterology, ostetrics, gynaecology, otolaryngology, vascular, dermatology,
ophthalmology, oncology, ob	
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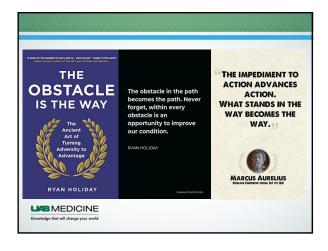












"The sum total of medical knowledge is now so great and wide-spreading that it would be futile for one man to attempt to acquire...a good working knowledge of any large part of the whole. The very necessities of the case are driving practitioners into cooperation. The best interest of the patient is the only interest to be considered, and in order that the sick may have the benefit of advancing knowledge,

union of forces is necessary."

William James Mayo, MD June 5, 1910

According to the Institute for Healthcare Improvement, there is an average of **24 handoffs** per inpatient admission.

Knowledge that will change your world

Why should I care?

Teamwork failures (failures in communication) account for up to 80% of serious medical errors

 Joint Commission. Sentinel event data: root causes by event type 2004-2015. <u>www.jointcommission.org</u>

Top 3 identified root causes for sentinel events- Human factors, leadership, and communication

Joint Commission. Sentinel event statistics released for 2015.
 www.info.jcrinc.com

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Teamwork results in better patient care and outcomes

- Horak, B.J. et al. (2004) Journal of Healthcare Quality. 26(2), 6-13.
- Teambuilding, behavioral ground rules between nursing and house staff
- Gitell, J.H. et al. (2000) <u>Medical Care</u>. 38(8), 807-819.
 - Relational coordination, mutual respect- impact on pain scores, LOS, quality of care

Teamwork across various team compositions represents a powerful process to improve patient care

Schmutz JB, Meier LL, Manser T. How effective is tearnwork really? The relationship between tearnwork and performance in healthcare teams: a systematic review and meta-analysis. BMJ Open. 2019 Sep 12;9(9):e028280

Knowledge that will change your world

Why should I care?

Team-building is one of the most useful organizational interventions to improve morale and productivity in the workplace and to ensure the mental and physical health of employees.

 Guzzo RA, Shea GP. Group performance and intergroup relations. In: Dunnette MD, Hough LM, eds. Handbook of Industrial and Organizational Psychology. Palo Alto, CA: Consulting Psychologists Press; 1992:269-313.

Residents in emergency medicine who **view their work groups as cohesive** appeared **more satisfied** with their jobs and **less stressed** than those who experienced less group cohesiveness.

 Heyworth J, Witley TW, Allison EJ, Revicki DA. Predictors of satisfaction among SHOs during accident and emergency medicine training. Arch Emerg Med. 1993;10:279-288.

Knowledge that will change your world

Why should I care?

Effective teams are known to foster workplace resilience, reducing collective burnout among staff.

 Rosen MA, DiazGranados D, Dietz AS, et al. Teamwork in Healthcare: Key Discoveries Enabling Safer, High-Quality Care. Am Psychol. 2018;73(4):433-450. doi:10.1037/amp0000298

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Members of work groups characterized by **positive teamwork** evidenced enhanced coping, **more job satisfaction**, less strain, and **improved** scores of measures of mental health.

 Carter AJ, West MA. Sharing the burden: Teamwork in health care settings. In: Firth-Cozens J, Payne R, eds. Stress in Health Professionals: Psycological and Organisational Causes and Interventions. New York, NY: John Wiley and Sons; 1999;191-202.

One specific product is a **more cheerful nursing staff**, one of the factors that correlates with **patient satisfaction**.

 Murphy LR. Organisational interventions to reduce stress in health care professionals. In: Firth-Cozens J, Payne R, eds. Stress in Health Professionals: Psychological and Organisational Causes and Interventions. New York, NY: John Wiley and Sons; 1999;149-162.

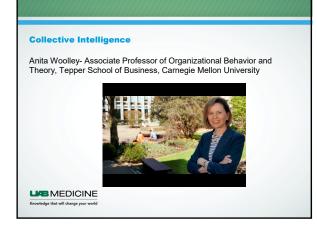
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Why should I care?

Teams offer the promise to improve clinical care because they can aggregate, modify, combine, and apply a **greater amount and variety of knowledge** in order to make decisions, solve problems, generate ideas, and execute tasks more effectively and efficiently than any individual working alone.

- Larson, J.R. (2010). In Search of Synergy in Small Group Performance. Psychology Press, New York, NY.
- Synergy is real, but it is difficult



Collective Intelligence

Woolley, A.W. et al. (2010). Science. Vol. 330; 686-688.

 Psychologists have repeatedly shown that a single statistical factorgeneral intelligence (g) or IQ- emerges from the correlations among people's performance on a wide variety of cognitive tasks and how that predicts performance on future tasks

•No one has systematically examined whether a similar kind of "collective intelligence" (c) exists for groups of people

 Hypothesis: groups, like individuals, have characteristic levels of intelligence (c) which can be measured and used to predict the group's performance on a wide variety of future tasks

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Collective Intelligence

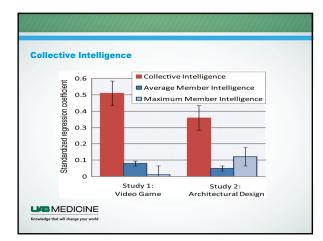
- 2 studies, 699 people, working in groups of 2 to 5
- Collective intelligence is the inference drawn when the ability of a group to perform one task is correlated with that group's ability to perform a wide range of other tasks
- Specifically, determine whether the collective intelligence of the group as a whole has predictive power above and beyond what can be explained by knowing the abilities of the individual group members
- Collective intelligence is a property of the group itself, not just the individuals in it

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Collective Intelligence

- Individuals completed tasks working alone- individual intelligence was a significant predictor of performance on the task (r=0.33, P=0.009)
- When the same task was performed by groups, the average individual intelligence of the group members was NOT a significant predictor of group performance (r=0.18, ns)
- When both individual intelligence and collective intelligence (c) are used to predict group performance, c is a significant predictor (β=0.36, P=0.0001), but average group member intelligence (β=0.05, ns) and maximum member intelligence (β=0.12, ns) are NOT

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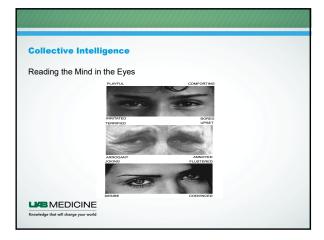
Collective Intelligence

If SMART TEAMS are not simply teams of smart people, what leads to a collectively intelligent team?????

Cohesion, motivation and satisfaction did not

■3 factors significantly correlated with "c"

- Positively correlated with average <u>social sensitivity</u>- measured by "Reading the Mind in the Eyes"
- Negatively correlated with <u>variance in speaking turns</u>- measured by sociometric badges
- Positively correlated with number of <u>females</u> in the group



Collective intelligence

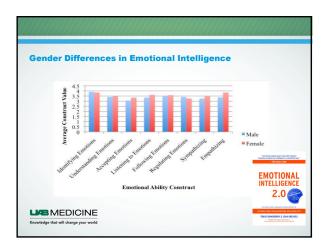
The Big 3

•Social perceptiveness: ability to infer others' mental states, such as beliefs or feelings, based on social cues. The average social perceptiveness of team members is predictive of "c"

 $\mbox{-}Greater$ amounts of participation and more equal participation are associated with higher "c"

•Females- generally more socially perceptive

nowledge that will change your work



Collective Intelligence

Conversational Turn Taking/Speaking up

•Likelihood of speaking up requires psychological safety

*"Sense of confidence that the team will not **embarrass**, **reject**, or **punish** someone for speaking up"

 Edmondson, A.C. (1999). Psychological Safety and Learning Behavior in Work Teams. Admin Psy Q. 44(2):354.

Collective Intelligence

Speaking up

•Lack of psychological safety often from being in "lower status roles or professions" can lead team members to avoid speaking up even when they know they have something to contribute.

Leader inclusiveness predicts psychological safety

- Psychological safety predicts engagement in quality improvement work
 - Nembhard, I.M, Edmondson, A.C. (2006). Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in healthcare teams. J Organ Behav. 27(7). 941-956

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Leadership attributes that promote psychological safety

- Eliciting information from other team members- explicitly asking for contradicting viewpoints or un-discussed information *paradox mindset*
- Showing appreciation for members' contributions
- Providing constructive responses/feedback
- Researchers have consistently found that when members engage in inclusive behavior, other team members feel more psychologically safe and are more likely to speak up about relevant information
 - Edmondson, A.C. (2003). Speaking up in the operating room: how team leaders promote learning in interdisciplinary action teams. J Manage Stud. 40(6). 1419-1452.

Knowledge that will change your world

Knowledge that will change your world

"The currency of safety is information"- Ivan Pupulidy

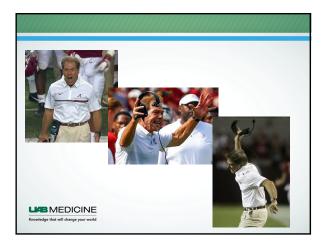
- Learning environment- trust, sharing, flow of information
- Judgmental environment- pain, distrust, silence
- "Anything we do to degrade our ability to gather information affects the safety of the system"





"Airport not in sight"- numerous times, minutes before impact "Let's make a missed approach"- 5 seconds before impact



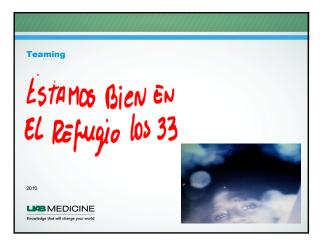




Teaming

- Amy Edmondson- Novartis Professor of Leadership and Management, Harvard Business School.
- Fast paced environments, shifting mix of projects, shifting team of partners





Teaming

- In contrast to stable teams, teaming involves fast paced environments where people work on a shifting mix of projects with a shifting team of partners.
- Teaming is about identifying essential collaborators and quickly getting up to speed on what they know so you can work together to get things done.
- This more flexible teamwork is on the rise because work is increasingly complex and interdependent, and the time between an issue arising and when it must be resolved is shrinking fast

Teaming

Characteristics of a teaming culture

Edmondson, AC. (2013) The Three Pillars of a Teaming Culture. Harvard Business Review.

Curiosity- drives people to find out what others know, what they bring to the table, and what they can add.

Passion- fuels enthusiasm and effort, makes people care enough to go all out.

Empathy- the ability to see another's perspective, which is critical to effective collaboration under pressure

Humble in the face of the challenge ahead- situational humility

Knowledge that will change your work

Teaming

"Teaming leaders aim to successfully engage team members in a collaborative learning journey" Amy Edmondson



Knowledge that will change your world

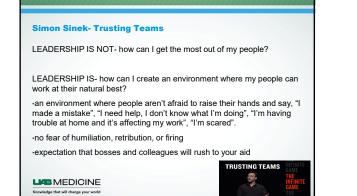
Situational Humility

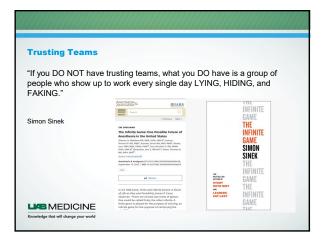
"It's hard to learn if you already know. *We are wired to think we know.* When teaming works you can be sure that some leaders had been crystal clear that they didn't have the answers."

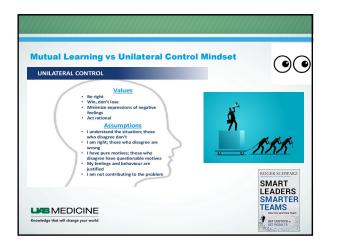
"It's hard to speak up, to ask for help, or offer an idea that might be a stupid idea if you don't know people very well. **Situational humility**, when combined with **curiosity**, creates a sense of **psychological stability** that allows you to take risks with strangers."

Amy Edmondson











Mutual Learning vs Unilateral Control Mindset Mutual Learning Model* Assumptions Strategies (Ground Rules) Core Values Results I have some inform others have other information State views and ask genuine questions Increase learning and understanding, reduce unproductive conflict a defensiveness others have other information • Each of us may see things the others do not • Use specific examples and agree on what important words mean Accountabilit Differences are opportunities for learning Explain reasoning and intent Help people make bet decisions and stick to them People may disagree with Test assumptions and inferences motives Decrease time to implement decisions Focus on interests not positions Jointly design the next steps Improve working relationships Discuss undiscussable issues Increased quality of life – group member satisfaction Use a decision-making rule that generates the level of commitment needed SMART LEADERS SMARTER TEAMS **LAB** MEDICINE that will change your world

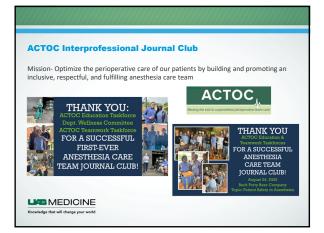
Anesthesia Care Team Optimization Committee

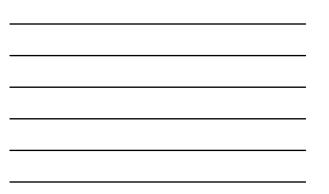
- Facilitated discussions between MDs and CRNAs
- Early sessions- listening only
- Discovered common goals, understood different perspectives
- "Epiphany bridge"
- Working together to jointly redefine future state of UAB Anesthesia Care
 Team built upon common mission, vision, and core values















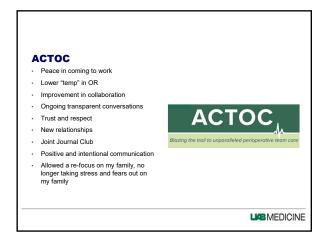






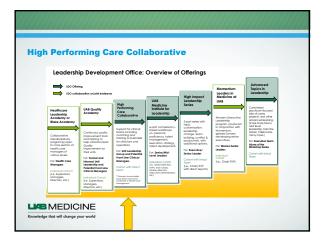




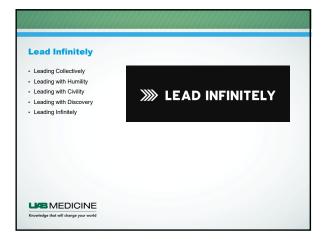




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Wrapping up

- Unilateral control isn't the only form of leadership
- Smart teams aren't simply collections of smart people on a team
- Work on social sensitivity, empathy- seek first to understand...
- Encourage speaking up by creating psychological safety
- Elicit ideas, show appreciation, provide constructive feedback
- Try to understand others' views- "I could be wrong"
- Be suspicious of any plan that involves omitting a group altogether-
 - WE is greater than ME!!!

Knowledge that will change your world



Thank you

"The formation of ideas is shaped more by the iterative interplay within the group than by an individual tossing in a wholly original concept. The sparks come from ideas rubbing against each other rather than as bolts out of the blue."

Isaacson, W. (2014). The Innovators: How a group of hackers, geniuses, and geeks created the digital revolution. Simon and Schuster, US.

Questions?

dsherrer@uabmc.edu

mattsherrermd@gmail.com