

Building Surgical Character: A Dynamic Simulation Curriculum for Resident Nontechnical Skills

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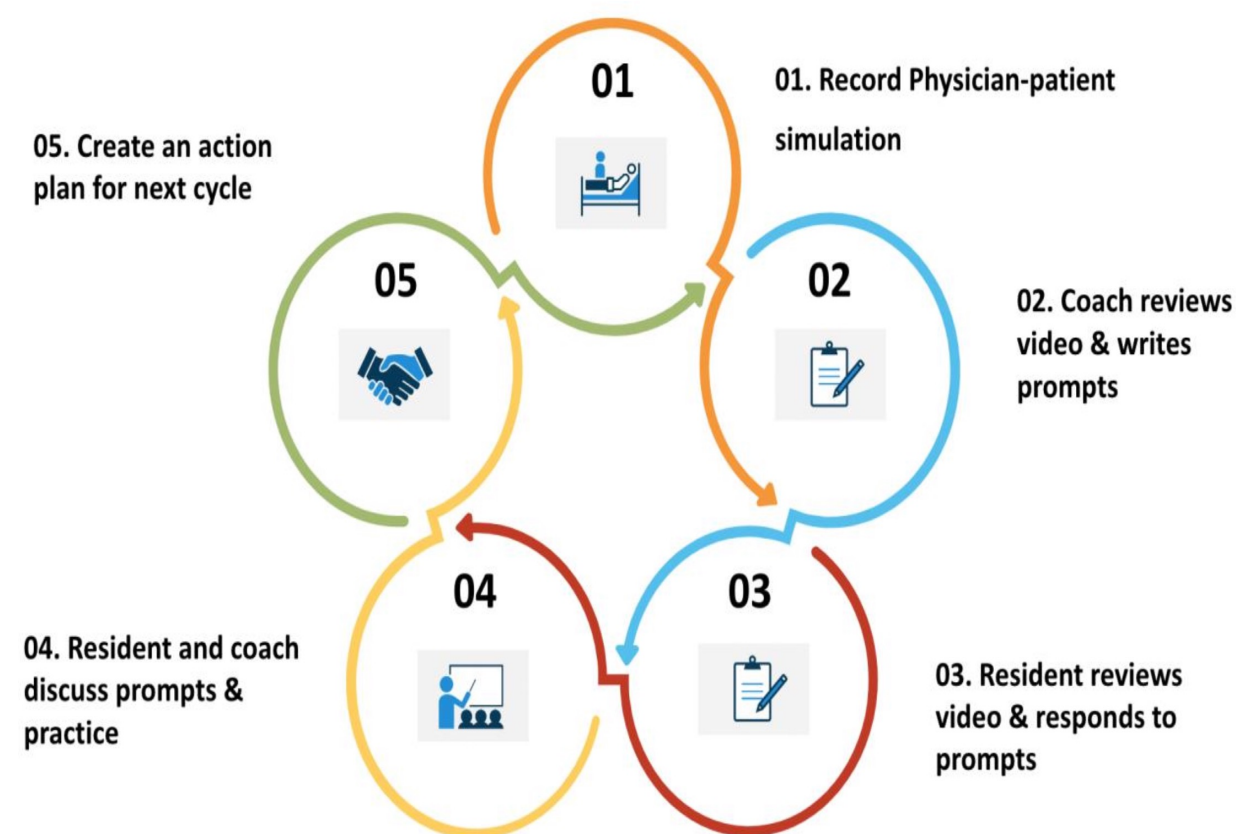
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Can we promote and measure character traits of a good surgeon using simulation?

Background: Nontechnical skills (NTS), including character traits, are important to becoming a good surgeon. Previous NTS simulation curricula have isolated technical skills from NTS and focused largely on communication.

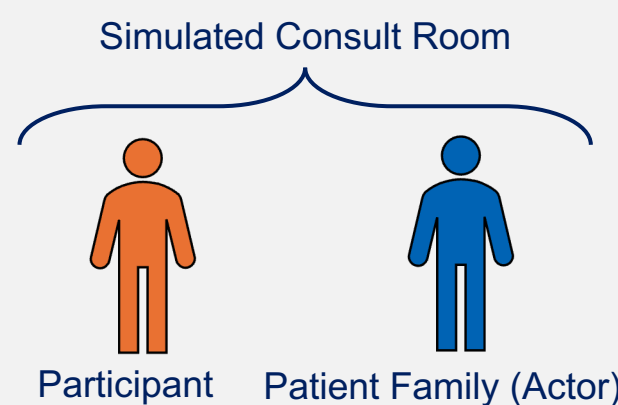
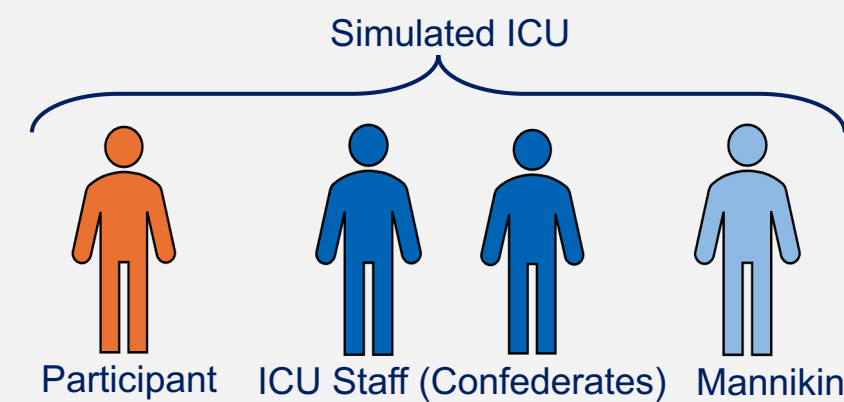
Goal: Develop and pilot an expanded simulation curriculum focused on situational performance of select character attributes: empathy, courage, composure, humility, and clarity.

Curricular Cycle



Simulation Scenario

Part 1: Manage an unstable postop patient in the ICU. Identify bile leak as source of septic shock.



Part 2: Update patient family member. Discuss suspected iatrogenic error and take ownership for delay in care.

Participant Assessment

	Part 1	Part 2	
Raters	Resident, attending, self	Resident, attending, psychologist, self	Standardized actor
Tools	Surviving Sepsis 1-hour bundle, Global psychometric rating tool	Global psychometric rating tool	CARE Measure
Skills	Sepsis management; empathy, courage, composure, humility, clarity	Empathy, courage, composure, humility, clarity	Patient perceived physician empathy

Results

Six senior medical students and 4 surgery residents completed entire curriculum.



Empathy

Medical students > Surgery residents



Courage

Medical students < Surgery residents



Global psychometric rating tool



CARE Measure

= **Strongly correlated**
(r = 0.75)

Our novel curriculum allows for deliberate practice and structured assessment of character traits important to becoming a good surgeon. Participants found this curriculum both highly necessary and useful.



References



Global psychometric rating tool



Complete Pilot Data