Use of Tabletop Simulation and Gamification to Enhance Understanding of Systems-Based Practice in Medical Education

Nathan Bates, MMS, PA-C
Brian J Robinson, MS, MPAS, PA-C
Chris Gillette, PhD
Wake Forest School of Medicine, Dept. PA Studies

Atrium Health
Wake Forest Baptist

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Objectives

Define Systems-Based Practice (SBP)

Identify challenges of incorporating SBP into didactic curriculum

Examine the effect of tabletop simulation via gamification delivery method on medical learner's understanding of SBP principles.

Outline next steps for interprofessional educational experience

Why Focus on Systems-Based Practice?

- *"An awareness of and responsiveness to the larger context and system of health care and the ability to call effectively on other resources in the system to provide optimal health care"*[1]

- **Core Competency** in Graduate Medical Education (ACGME).

- Essential to **safe**, **high-value**, **patient-centered care**.

- Promotion of **health literacy** *and* equity

A Quick Experiment…

The SBP Challenge…

Abstract Concepts
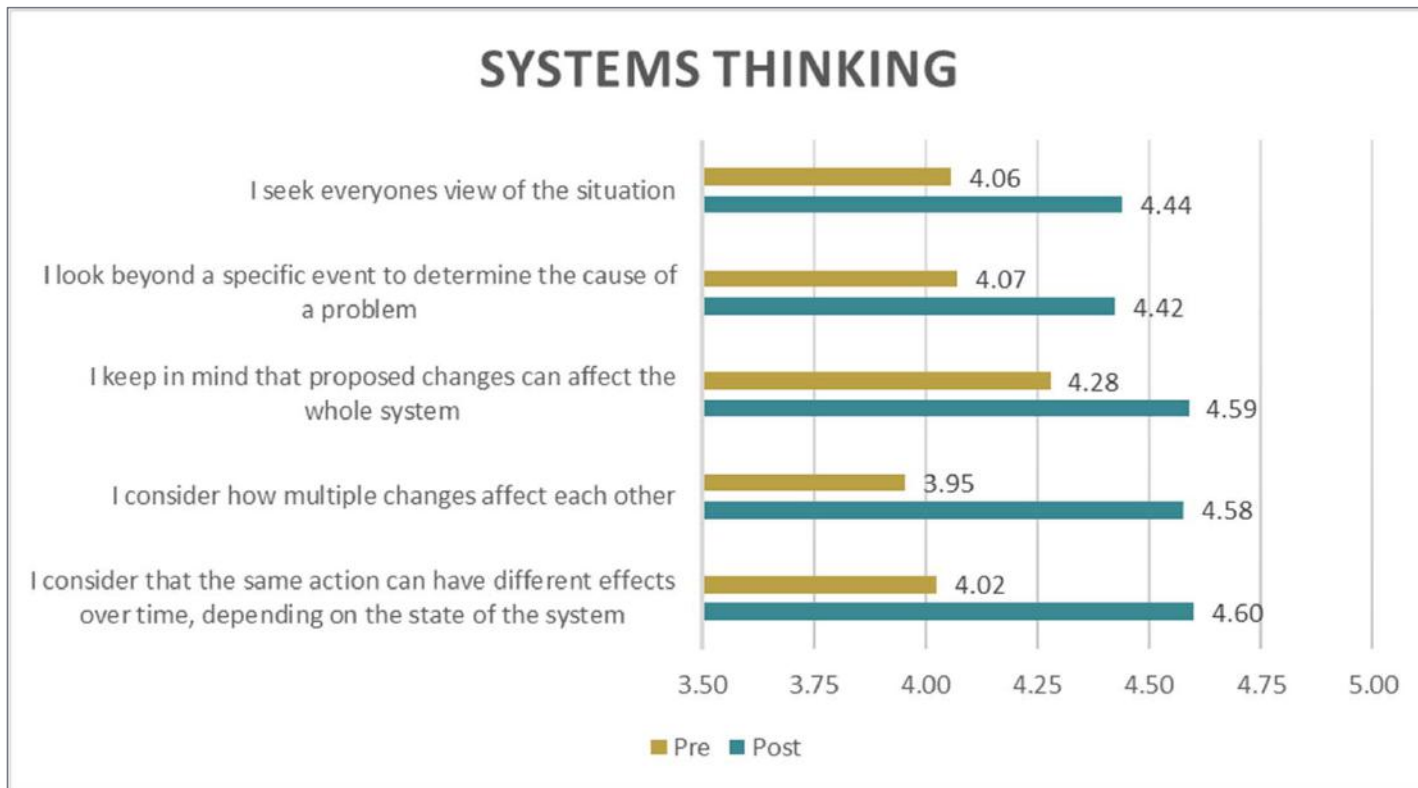

'Dry' Traditional Lectures

Difficult to Assess

https://fridaynightattheer.com/

Methods

Pre-Simulation Questionnaire

(86 PA students)

→

Simulation & Debrief

→

Post-Simulation Questionnaire

Results

Results

Table 1. Key Concepts Learned

Topic	% response
Teamwork/Collaboration/Communication	41%
Innovation/"Thinking Outside the Box"	32%
Data Driven Decision Making	15%
Mental Models	14%
Awareness of Interconnectedness in Decision Making	12%
Ask Questions	10%
Awareness of System Complexity and Structure	9%
Flexibility/Tolerance of Ambiguity	2%

Table 2. Influential Mental Models Identified

Topic	% response
Perceived Constraints / "Rules"	61%
Lack of Innovation	24%
Lack of Inquiry and Data Gathering	20%
Perceived Cost and Impact of Decisions	11%
Lack of Collaboration / "Not My Job"	5%

Lessons Learned

- Tabletop Simulation…
  - allows learners to *experience* various SBP principles and examine the impact on patient care
  - increases awareness and understanding of SBP principles
  - illustrates the importance of collaboration, innovation, and data-driven decision making as it relates to delivering patient care in a complex system

- Challenges
  - Gameboard resources and optimal curricular timing

- Next Steps
  - Redesign event for an interprofessional education activity
  - Address pitfalls of health care centric thinking associated with SBP

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Questions?

Resources

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