Definitions

- "…a device that presents a simulated patient (or part of a patient) and interacts appropriately with the actions taken by the simulation participant."
- "Simulation is a technique, not a technology, to replace or amplify real experiences with guided experiences, often immersive in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion."

Gaba DM. Qual Saf Health Care 2004 13 (Suppl 1):i2-i10.

Use of Simulations and Simulators in Medical Training: It's All About the Science

Sheila Chauvin
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John Szarek
The Commonwealth Medical College

Objectives

- Review the current state of basic science education with respect to the use of human patient simulators
- Describe strategies for incorporating the use of human patient simulators in basic science education
- Summarize the benefits of using human patient simulators in basic science education

Experiences at 3 Medical Schools

- Ross University School of Medicine—2003-2007
- A.T. Still School of Osteopathic Medicine in Arizona—2007-2009
- The Commonwealth Medical College—2009-present

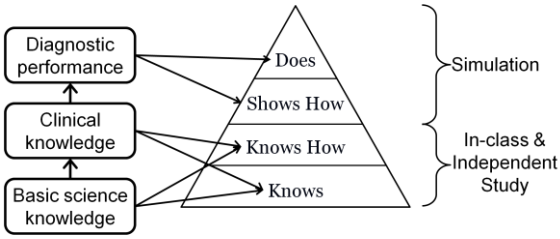
Using Simulators in Basic Science

- Become the Champion!
- Barriers and uncertainties
  - Initial outlay
  - Time in curriculum
    i. For simulation
    ii. Student preparedness
  - Faculty members uncomfortable

Science of Simulation

- Standardized
- Deliberate practice
- Safe, nonthreatening environment
- Debriefing

Science and Simulation



Success of Simulation

- "…will not be determined primarily by the type or capability of the simulator used, but mostly by the enthusiasm, skill, and creativity of instructors as well as the time and effort devoted to preparing and performing credible simulation scenarios."

Using High Fidelity Simulation to Teach the Basic Sciences

A National Survey

Sheila W. Chauvin, Tong Yang, John Szarek,
E. Patrick Finnerty, and Valeriy Kozmenko

Background

- 2007, part of a larger IRB-approved study
- National workshop, 67-item questionnaire (QUANT → qual)
- Deans → single best contact
- 56 of 91 participating allopathic schools (62% response rate)

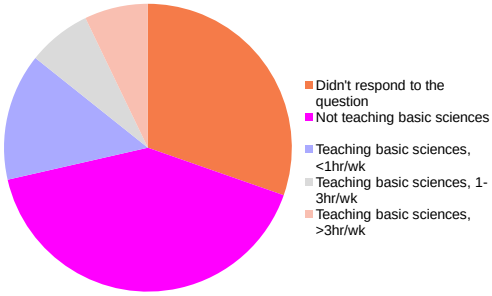
Results -- *Highlights*

- Prior to 2000: only 6 schools
- 2003-2007: 23 of 56 respondent schools
- HFS resources: centralized, school wide (69.6%)
- Planned expansion:
  - Modest (25.4%), Substantial (45.5%)
- Technician-facilitated sessions (47.7%)

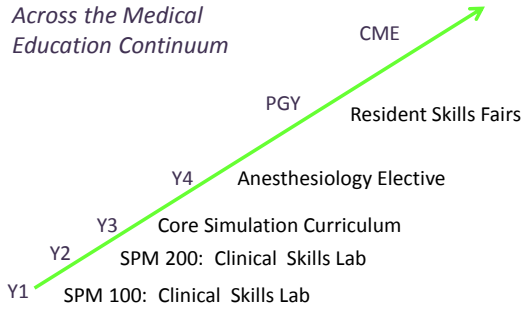
Results – *HFS in Teaching*

- Explicit teaching of basic sciences (35.7%)
- Part of core curricula (56.8%)
- Integrate basic and clinical sciences (51.2%)
- Promote clinical reasoning (62.8%)

HFS – Teaching Basic Sciences



HFS at LSUHSC-New Orleans



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