

BACKGROUND

- A needs assessment was conducted to investigate the knowledge, skills, and abilities of ICU nurses upon hiring.
- Clinical preceptors, senior nurses, and BKAT testing indicated gaps surrounding orientees' understanding of underlying physiology in critical care patients as well as the treatments used to care for them.
- A program was created consisting of five 2-hour simulation workshops focused on physiology and clinical application.

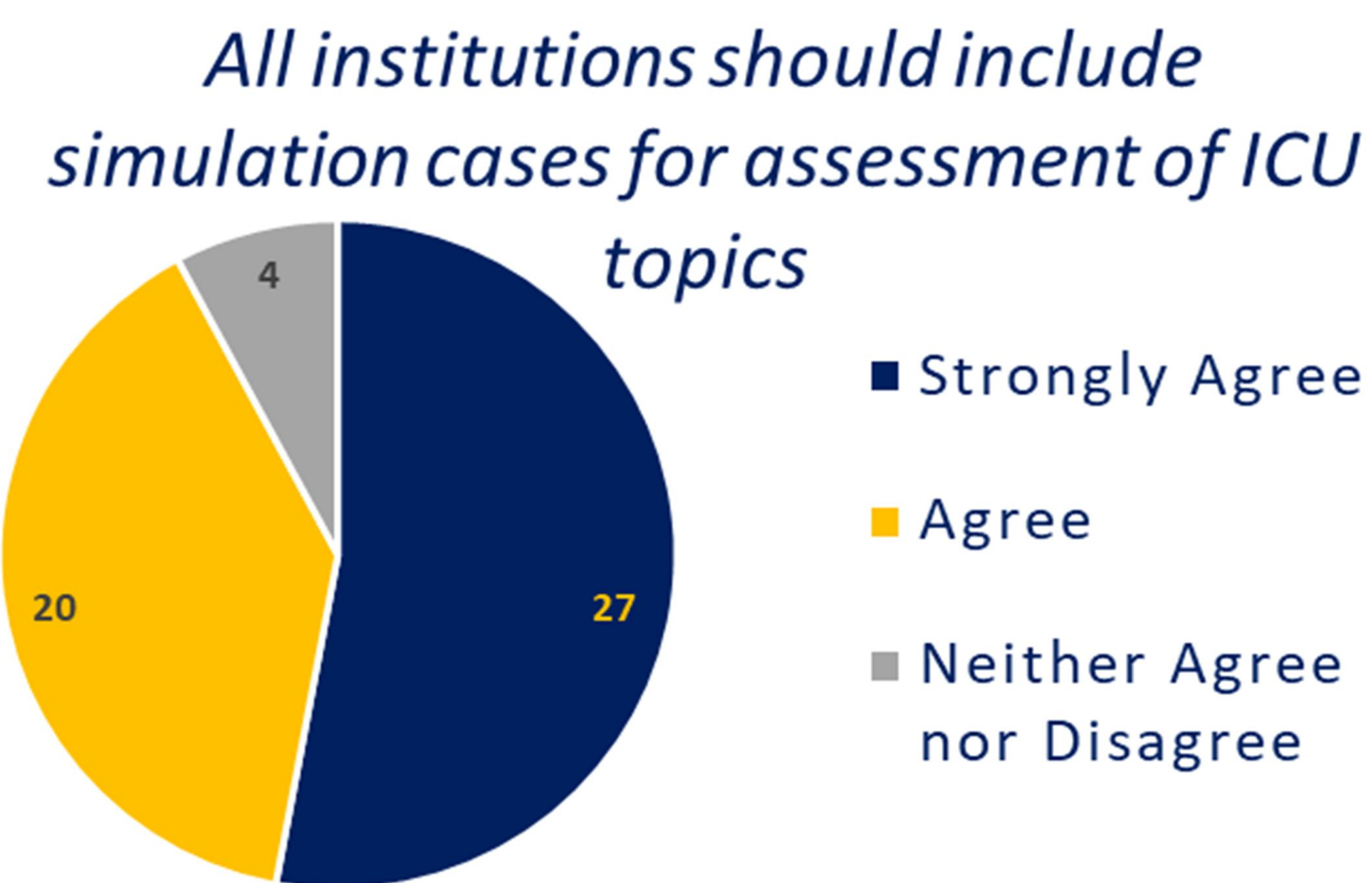


IMPROVEMENT ACTION PLAN

1. A baseline of the orientee's knowledge is gathered during a standardized pre-simulation.
2. A second workshop was adapted from a School of Medicine simulation which demonstrates the cardiovascular physiology of a critical patient.
3. The third workshop focuses on the respiratory system and an introduction to the ICU ventilator.
4. The fourth workshop is an ABG workshop showcasing several simulated patients to present each gas derangement.
5. Learners conclude their orientation simulation series with a post-simulation to cement the principles and assess the progress of the learner. The final simulation is significantly more complicated and includes misplaced airways, incorrect medications, and multiple distractions.

RESULTS

- In a post-simulation survey, participants felt this program aided their transition to ICU service.
- Orientees felt that other institutions should implement similar orientation programming.
- Once completing the program, respondents felt they could more efficiently identify acuity decompensating patients.
- Orientees noted how this program promoted the importance of orientee/preceptor relationships, development of critical thinking skills, and utilization of simulation to exercise practical application of knowledge using a controlled environment.



SCALE-UP PLAN

- Currently, this program exists for the adult ICUs at Ruby Memorial.
- The program has the potential to expand into emergency medicine, pediatrics, and other departments, provided that their clinical educators and leadership conduct thorough needs assessments and offer the necessary support.
- This program can serve as a model for system-wide implementation among ICU staff, with Ruby and STEPS staff leading the training of educators across the healthcare system.

SUSTAINABILITY PLAN

- This is a standardized educational event featuring predefined goals, objectives, and instructional materials that are readily adaptable for use by other simulation professionals.
- This program has been self-sustaining since 2017 with periodic revisions and additions to content.
- The monetary cost was calculated at \$3,700 per orientee, assuming full utilization of all simulations. Notably, WV STEPS does not charge Ruby Memorial Hospital nursing departments for these simulations; this cost applies only to external users.

SMARTER OBJECTIVES

1. Describe the process for designing, implementing, and evaluating a new-hire orientation program in an ICU/Critical Care environment.
2. Identify opportunities for physiology and pathology simulation workshops for professional staff.
3. Describe the process of a comprehensive program evaluation to assess programs and make necessary changes based on findings.



LESSONS

- STEPS and other simulation centers can help build, deliver, and evaluate education content for local healthcare providers
- Leveraging resources from existing simulation programs significantly decreases the required content creation effort and accelerates the development process.