

## Background

Studies have shown a variety of factors including communication, knowledge, and environment impact the performance of interprofessional teams. Students at the Brody School of Medicine and ECU College of Nursing ABSN students participated in a mass casualty simulation as a part of Interprofessional Triage, Emergency, Assessment, and Management Day (ITEAM Day).

ITEAM Day was an innovative interprofessional experience to supplement the preclinical medical school and nursing school curricula using live-actor simulation and skills stations.

- Live Actor Triage/Resource Allocation Simulation
- Primary Survey
- Triage Bottle Tagging
- Hemorrhage Management
- IO's and IV's
- Basic Airway Management
- First 5 minute simulation on High Fidelity Mannequin

Our study focused on identifying factors that impaired medical and nursing student performance in a live mass casualty simulation and analyzing the difference between these identified factors.

## METHODS

Participants: consenting medical students from BSOM (N=23) and nursing students from ECU CON ABSN (N=16). Students were split into 8 teams of 5, containing 3 medical students and 2 nursing students.

ITEAM Day Live Actor Triage Simulation: Hurricane Shelter Collapse

- Triage Algorithm lecture
- Students were briefed regarding the number of patients, standardized patient vital sign cards, and triaging protocol.
- Interprofessional teams ran through the simulation assigning tags to live actor patients and mannequins
- The interprofessional teams confirmed their triage tags as a group.
- Following the simulation, students attended a debriefing led by Emergency Medicine physician to discuss the correct triaging procedure and logic behind each individual tag.
- A resource allocation discussion was also included in the debrief.

Data collection:

- Survey on barriers to performance in high stress simulated environments.

Data analysis:

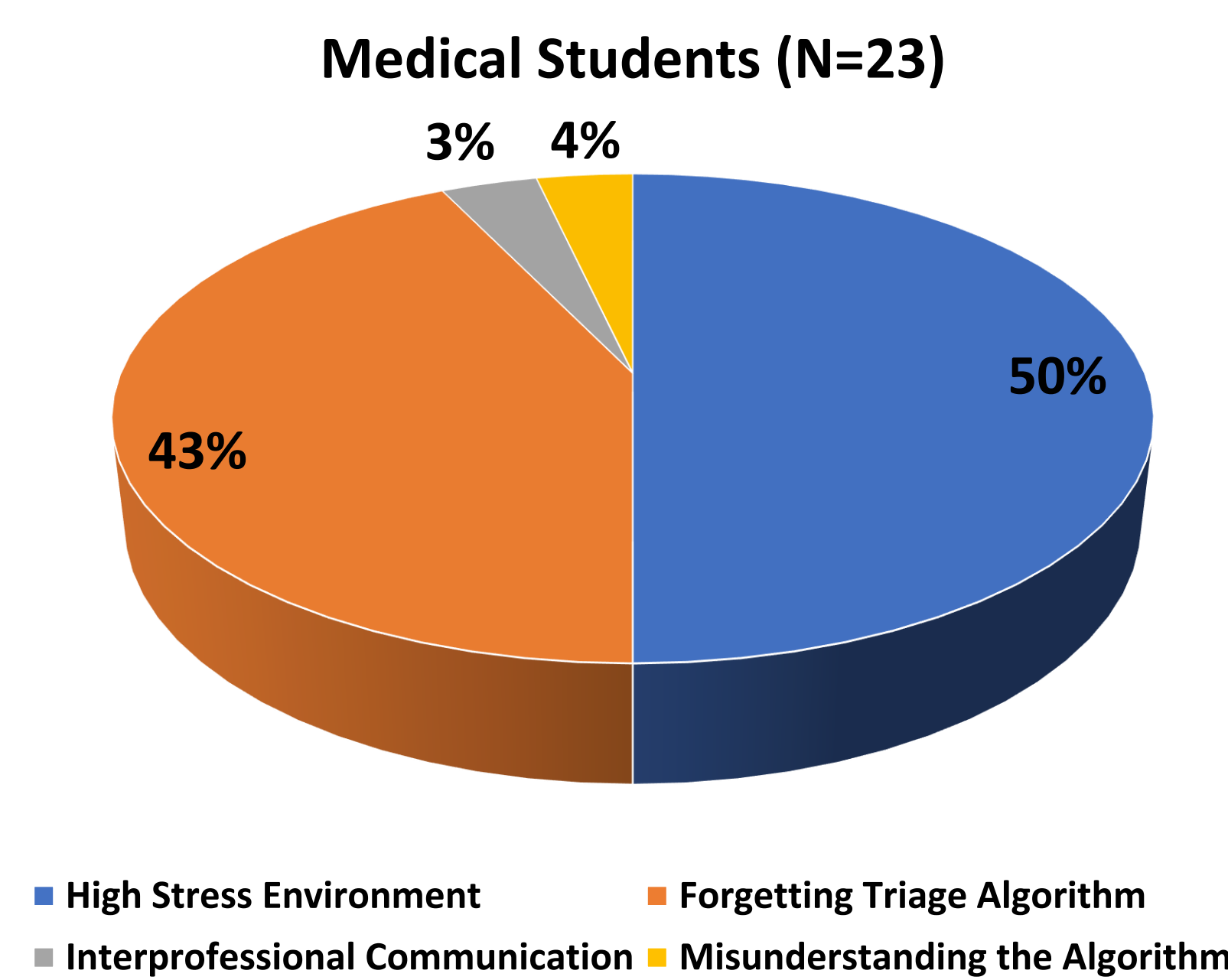
- Chi-square analysis of medical student vs nursing student reported barriers of performance.

## RESULTS

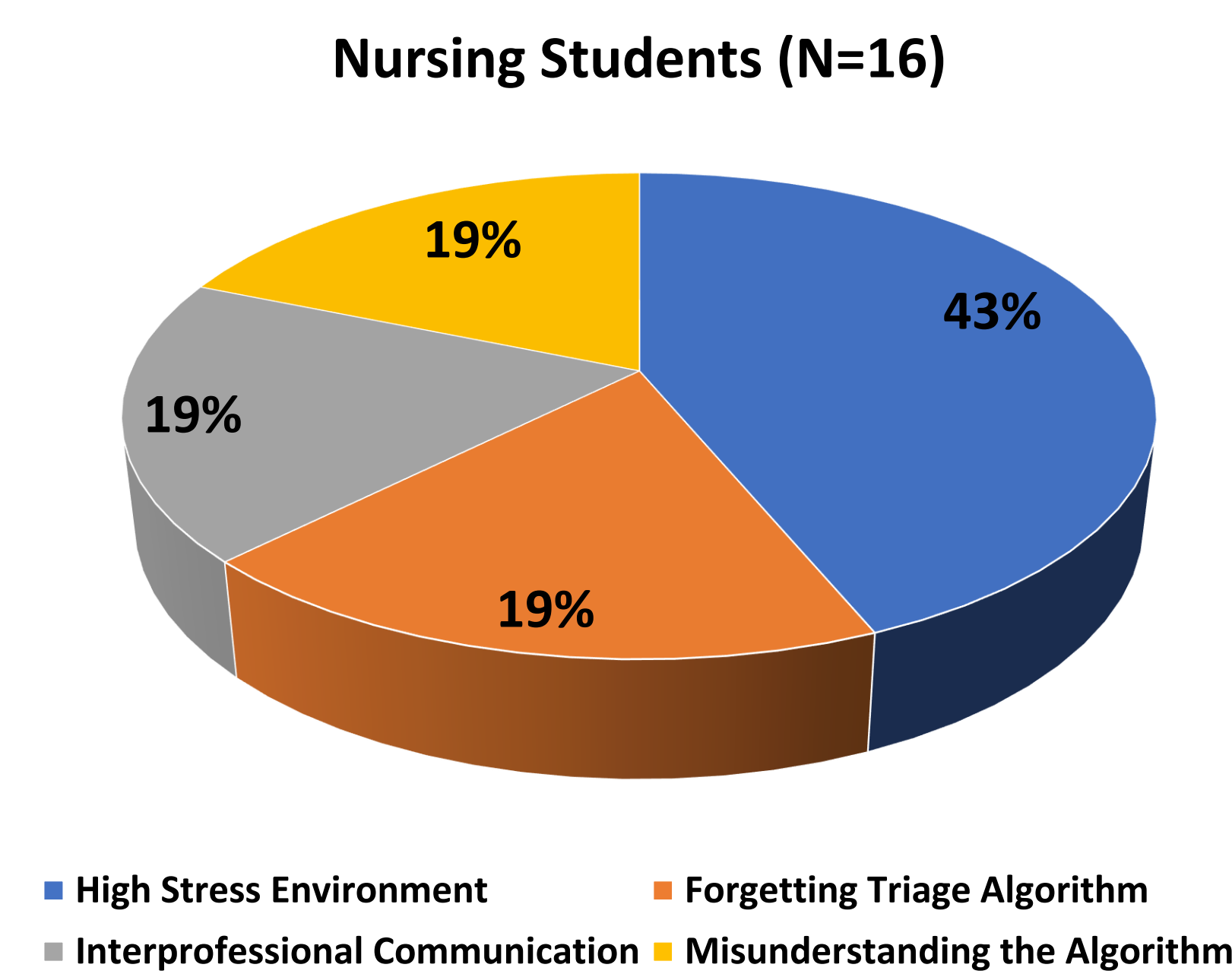
When comparing medical student responses (N=23) versus nursing student responses (N=16), a significant association ( $p < .05$ ) was found between student type and the reported barrier to performance.

Reported Barriers to Performance	Medical Students (N=23)	Nursing Students(N=16)
High Stress Environment	14	7
Forgetting Triage Algorithm	12	3
Interprofessional Communication	1	3
Misunderstanding the Algorithm	1	3

Graph 1: Medical Students: Self-Reported Barriers to Performance



Graph 2: Nursing Students: Self-Reported Barriers to Performance



Reported Barriers to Performance

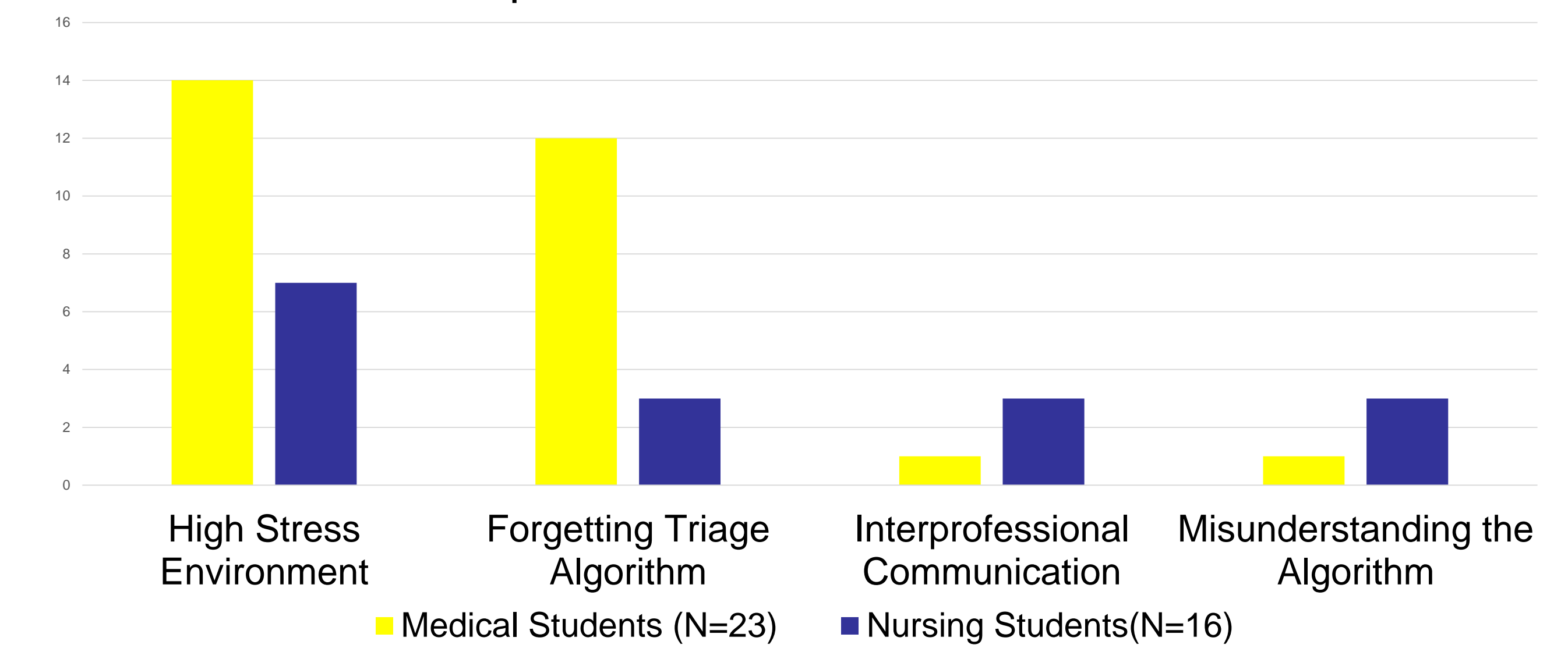


Figure 1: Comparison of Reported Barriers to Performance in High Stress Environment

## Conclusions/Future Impact

We speculate that the variability in reported barriers is due to differences in curricula and level of training.

- Medical students were less than halfway through their training with predominantly didactic instruction up to this point.
- Nursing students were two weeks away from completing their simulation-intensive curriculum.

Previous studies have found links between working memory retrieval and stress levels (Mueller).

- Medical students' lack of familiarity with high stress simulations could contribute to their inability to recall the triage algorithm.

Increased experience of nursing students in role-specific simulations could contribute to the interprofessional communication barriers when placed in an undefined role

- ITEAM Day provided a less clear delineation of professional roles among students which could have led to confusion among teams and gaps in communication.

### Future Impact:

By identifying these barriers to performance, professional schools can better design future simulations while working to increase the number of high stress/interprofessional simulations to prepare students for the future.

## REFERENCES

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## ITEAM Day Live Actor Triage Simulation: Hurricane Shelter Collapse

