



Innovation Challenge

Project Overview

In-situ, Inter-professional Simulation to Improve the Response to Rapidly Deteriorating Patients

Very high-acuity patients are at risk for deterioration, but delays in recognition, poorly coordinated responses, and ineffective communication may lead to further deterioration and cardiac arrest, as well as stress in team members. The goal of this project is to utilize a novel combination of a game-based application and full-scale, high-fidelity simulation training to improve the inter-professional bedside team’s identification of subtle changes in patients’ conditions, critical thinking to improve the response to deteriorating patients, and collaboration with the Rapid Response Team. The anticipated outcomes would be decreases in the number of ICU transfers and cardiac arrests plus a decrease in burnout and improvement in work satisfaction among Rapid Response Team and floor team members.



Cohort 1
July 2021 - January 2023



\$125,000 Award



Primary Outcome
Improved identification & response to deteriorating patients



Project Team

- Samuel A. Tisherman, MD, FACS, Surgery
- Nicholas Morris, MD, Neurology
- Maureen Archibald, MS, RN, Clinical Practice and Professional Development
- Sai Ho Jason Chui, PharmD, BCPS, Pharmacy
- Mojdeh Heavner, PharmD, BCPS, Pharmacy Practice and Science
- Benjamin Neustein, MAT, Paramedic, Critical Care and Trauma Education
- Robin Price MSN, RN, Clinical Practice and Professional Development
- Kathleen To, MD, FACS, Surgery
- Shawn Craft, RRT, Respiratory

Midpoint Progress Updates

(June, 2022)

The team partnered with Grendel Games to create a gaming app and set up a survey for the Maslach Burnout Inventory (MBI). All equipment has been obtained and the scenario has been developed for the in-situ simulation. The team plans to begin the roll out of the MBI and the gaming app in July, 2022.



Final Report Summary

(January 2023)

The team successfully developed an innovative game called “Distress!”. The game, in conjunction with a mannequin, simulates responses to coding patients. The team trained several units on the use of the game and response, leading to improved patient care outcomes. Of the trained clinicians, many commented that they now feel more comfortable calling for help and escalating early, communicating more clearly, and questioning requests from providers. Overall, they conveyed confidence in responding to these situations as a result of the “Distress!” game. The game can be downloaded and played by anyone, found in mobile App stores as “Distress!”, as well as by following this link: <https://distressthegame.com/game>



Awards & Recognitions



In September 2023, the team’s “Distress!” app was awarded a gold medal from the International Serious Play Awards. International Serious Play Awards recognize and honor outstanding learning products which incorporate game elements and were created for use in education or training. This team’s novel method of bridging the gap between didactic and in-situ simulation learning earned them this award. The team’s impressive work was also featured in an article by Becker’s Hospital Review in April 2024. Check out the article [here](#).