



# Failure is an Option: Using Simulation to Improve Practice in a Multispecialty Setting



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## Background

Children's Mercy recently opened an obstetric inpatient program within their stand-alone pediatric hospital. The hospital provided high-fidelity simulation training to prepare for the opening of the program and continue to use this training model for ongoing program development. Multidisciplinary teams coordinate this training for cognitive, technical, and behavioral performance.



## Strategy and Implementation

The Elizabeth J. Ferrell Fetal Health Center at Children's Mercy provides advanced care for selected high-risk pregnancies before, during and after delivery.

Simulation efforts began in 2010 with the creation of scenarios specific to delivery of newborn infants with complex congenital anomalies. Multidisciplinary teams coordinated training for cognitive, technical, and behavioral skills in performance of these scenarios. Most scenarios involved emergency newborn management and maternal complications. The team implemented a videotaped simulation practicum with emphasis on integrated team behavioral performance. Formal debriefing occurred after each simulation event to identify further learning opportunities. Team performance was measured using scales that are objective, measurable and reproducible. Evaluation of simulation effectiveness was completed using evaluation forms, pre- and post-test forms, and reviewing employee feedback from formal debriefing.

## Outcome

Since simulation implementation, the Fetal Health team decided to make simulation training a requirement for their annual competency completion. Overall outcomes, employee satisfaction, and quality are improved through the use of simulation-based training.

Employees were surveyed prior to participation in simulation and immediately after team debriefing. Results of the survey demonstrated improvements in comfort levels in clinical management, team dynamics, equipment familiarity, and resource identification using a 5-point Likert Scale.



## Implications for Practice

The Fetal Health Center currently has a 0% obstetric adverse event rate and continues to use simulation to prepare for emergencies.

Recruitment of an interdisciplinary team for unannounced emergencies is essential to identifying barriers such as staffing support, communication, and team trust.

Simulation is recommended to create and develop a culture of healthcare safety.

Simulation takes much less time than an actual safety event would.

