

## Debriefing in Healthcare Simulation: Transforming Raw Emotion into Refined Skill

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### Abstract

Simulation-based learning is a rapidly growing field of interest in medical education due to its proven benefits. Debriefing is a key component of this methodology as it allows for structured reflection on performance and clear identification of areas for growth. Our main objective was to characterize the impact of debriefing in the immediate period following healthcare simulations on a student's motivation for learning. Medical students at a Mexican university were surveyed regarding their emotional responses following a simulated patient encounter using Plutchik's wheel of emotions. Students were again asked to complete the survey following the debriefing session, which was done using the PEARLS method. Only students who completed both surveys were considered for paired analysis. From 143 student responses, 34.5% exhibited an improvement in emotional response, transitioning from negative emotions following the simulation to positive emotions after the debriefing. A majority of 58.4% maintained a consistently positive emotional state throughout both surveys. Persistent negative emotions were observed in 4.2% of participants, while 2.8% experienced a decline, shifting from positive emotions post-simulation to negative emotions post-debriefing. The persistently positive emotions as well as the large proportion of students who reported an improvement in their emotional state following debriefing reinforces previous research that suggests that guided feedback and reflection sessions help guide students and provide intrinsic motivation for further learning. Persistence, and in some cases appearance of negative emotions, warrants further investigation and points toward a need for a more individualized approach.

**Keywords:** Simulation, Emotions, Debriefing, Higher Education