

Simulating Teamwork for Better Decision Making in Emergency Medical Services

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Casey Dolen contributed to data collection, video review and scoring as noted in manuscript. Additionally, assisted with methodological design and data interpretation, manuscript draft and editing. Literature review and sourcing. Primary MSA project.

Yeshai Dollin contributed to data collection and video review as a second reviewer as noted in manuscript. Additionally, assisted with final edits of manuscript. This is not his primary MSA project.

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Abstract

Emergency Medical Services (EMS) are an essential component of health systems and are critical to the provision of pediatric emergency care. Challenges in this setting include fast pace, need for advanced teamwork, situational awareness and limited resources. The purpose of this study was to identify human factors-related obstacles during care delivery by EMS teams that could lead to inefficiencies and patient safety issues. We examined video recordings of 24 simulations of EMS teams (paramedics and EMTs) who were providing care to pediatric patients. Two reviewers documented a total of 262 efficiency and patient safety issues in 4.25 hours of videos. These issues were grouped into 28 categories. Reviewers also documented 19 decision support opportunities. These issues and decision support opportunities can inform the design of clinical decision support systems that can improve EMS related patient outcomes.