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Residency Training for Language-Concordant Care: How Effectively Can a Bilingual Emergency Medicine Residency Improve Outcomes for Patients and Hospitals?

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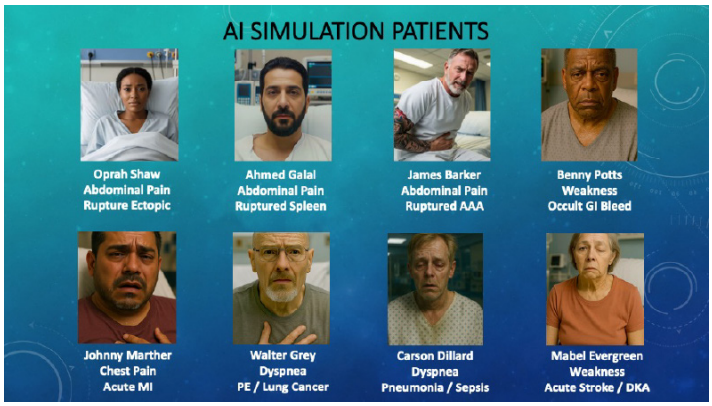
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and communication skills. We also assessed comfort and perception of this novel simulation modality.

Curricular Design: Eight AI-simulated cases representing common emergency presentations (chest pain, dyspnea, abdominal pain, and weakness) were developed using avatars with diverse patient backgrounds, communication styles, and personalities (Image 1). Residents completed a pre-survey, simulation encounter, post-survey, and final assessment. The system automatically captured metrics for diagnostic sequencing, time to critical actions, and management decisions, followed by structured debriefing. This is an IRB-approved project.

Impact And Effectiveness: Eight PGY-1 residents completed all simulations. Across the first four cases mean Likert ratings ranged from 3.6–4.1/5, reflecting overall positive perceptions (Table 1). The largest pre–post gain was in comfort participating in simulation (+0.42), while other domains (perceived educational value, engagement, and clinical reasoning) remained stable. No statistically significant differences were observed, consistent with high baseline confidence and limited sample size.

This pilot demonstrates that AI-simulated patient encounters are a feasible, safe, and responsible modality for EM resident training.



Question	Mean Pre	Mean Post	Mean Δ (Post-Pre)	SD Δ	t-test p	Wilcoxon p
Q11	3.638	4.055	0.417	0.432	0.149	0.25
Q12	3.783	3.75	-0.033	0.461	0.896	1.0
Q13	3.824	3.71	-0.115	0.283	0.478	0.593
Q14	3.824	3.866	0.042	0.315	0.809	1.0
Q15	3.668	3.81	0.141	0.279	0.386	0.285

Question 11: Comfort participating in simulation-based training
Question 12: Perception of simulation as valuable for learning EM skills
Question 13: Confidence engaging in and contributing to simulation
Question 14: Comfort making mistakes in simulation
Question 15: Expectation that simulation improves clinical reasoning

19 Residency Training for Language-Concordant Care: How Effectively Can a Bilingual Emergency Medicine Residency Improve Outcomes for Patients and Hospitals?

Lincoln Sheets, Victor Cisneros

Background: Nearly 20% of the U.S. population experiences limited English proficiency, placing them at heightened risk. In emergency medicine, timely and accurate communication is essential for patient safety. LEP patients experience longer ED stays, higher repeat visits, and increased adverse events. Elderly LEP patients are particularly vulnerable, compounding clinical risks. Despite federal mandates, existing interpretation services often fall short of patient needs. High costs and inconsistent quality plague current language access solutions.

Curricular Design: Residency Training for Language-Concordant Care proposes a proactive shift by training residents to provide language-concordant care. A structured, evidence-based bilingual curriculum is integrated into residency training. This curriculum spans three years, progressively building medical Spanish proficiency. It begins with foundational language skills and advances to complex clinical conversations. Digital tools, including an online learning platform and smart phrasebook, support the training. A professional development module ensures regulatory compliance in language access. A virtual compliance advisor provides real-time guidance on legal and ethical standards. Residents are prepared to achieve Qualified Bilingual Staff (QBS) status, with certification based on scenario-based assessments and rigorous testing. The curriculum supports both language acquisition and cultural competence. An interdisciplinary team with extensive clinical and educational expertise leads the project.

Impact: Our preliminary data show significant improvements in medical Spanish proficiency and pilot studies indicate high user acceptance of the smart phrasebook and digital modules. The project will evaluate language proficiency gains and assess regulatory compliance and resident self-efficacy. Key metrics include completion rates, time-to-certification, and patient satisfaction. Data collection spans multiple residency programs and clinical settings. The program's scalability will allow broader adoption across healthcare institutions. Success will advance health equity and improve outcomes for LEP populations. This innovative approach aims to transform language access in emergency medicine nationwide.

20 Development of a Prehospital and Austere Medicine Elective

Bryanne Macdonald, Matthew Shapiro, Leah Manchester, Adrianne Wurzl, Matthew Senno, Julianne Earle, Brendan McFall, Meghann Zapcic-Desrochers, Seth Kelly, Liza Smith

Introduction: Subspecialty EM rotations provide students with exposure beyond a standard clerkship experience and broaden access for away rotations. They also allow programs to highlight unique strengths and engage with applicants. Existing resource-limited environment electives typically address wilderness medicine or EMS in isolation. To fill this gap, we created a fourth-year elective integrating wilderness