Author(s):

Question: In-situ simulation compared to another non-in-situ simulation modality for training interprofessional healthcare providers to improve perceptions, knowledge, skills, clinician behaviors, and patient care outcomes

Setting:

Bibliography:

Certainty assessment							Impact	Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
Safety event Mitigation									
1	randomised trials	not serious	not serious	not serious	not serious	none	97 cliniciansIn-situ simulationidentified 21% more organizational issues (qualitative, no statistical comp).	⨁⨁⨁⨁ High	CRITICAL
Participant Reactions and Preferences									
4	randomised trials	serious	very serious	very serious[a]	very serious[b]	publication bias strongly suspected	Note: Also quasi-experimental studies1667 clinicians Summary:Percent change ranged from 35% against in-situ to 10% in favor.Pvalues ranged from 0.79 to < 0.001 Detail:Confidence qualitatively improved Pre/post, but no statistical comparisons were made between groupsSimulation experience scores differed in favor of the non-in situ group (41.5, vs 31.78, p < 0.001). but this study had an unorthodox design comparing non-in situ sim plus didactic to in-situ with no didactic.Authenticity of in-situ rated higher for cesarean section(4 (3–4) to 3 (3–4)) (p = 0.02), authenticity of postpartum hemorrhage better for in-situ (4 (3–4) vs 3 (3–4) p = 0.01).No significant difference in perceived comfort between in-situ and center-based sim on multiple items	⨁◯◯◯ Very low	NOT IMPORTANT
Knowledge Improvement									
1	randomised trials	not serious	not serious	not serious	not serious	none	97 Clinicians MCQ scores showed no significant difference	⨁⨁⨁⨁ High	NOT IMPORTANT
Technical Skills as Applied to Clinical Care									
1	randomised trials	not serious	not serious	not serious	not serious	none	57 clinicians Summary: 22.9-33% improvement P value range 0.049-0.012 Detail: 30% (2/6) metrics of intubation skill improved, with these focused on hands/on measures of performance. Percent scored as “excellent” in laryngoscope technique 27% vs 60%, p = 0.026 Percent scored as “excellent” in intubation technique 13.8 vs 42% , P =0.012 41.4 vs 64.3 p = 0.049 were scored excellent in overall “competence” in favor of intervention. All numbers in favor of in-situ	⨁⨁⨁⨁ High	CRITICAL
Need For Remediation									
1	randomised trials	not serious	not serious	not serious	not serious	none	57 Clinicians Less need for remediation in in-situ 40% vs 14.3% p = 0.04	⨁⨁⨁⨁ High	IMPORTANT
Resource Impact									
0								-	
Cost Impact									
0								-	
Adverse Emotional Impact									
0								-	
Adverse Care Impact									

Certainty assessment							Impact	Certainty	Importance
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0								-	

CI: confidence interval

Explanations

a. K1-K2 outcome levels in this group remain problematic

b. One study shows worse performnace for in-situ, but the design is severely confounded.