

SET THE SCENE: MIDWIFERY EDITION

Designing a digital scenario generator to enhance midwifery education

Evidence from a systematic review of low-fidelity simulation

Natasha Richards | MSc Medical & Healthcare Education ARU Student | Jersey Midwife & Practice Education Facilitator



19

STUDIES INCLUDED

1,043

RECORDS IDENTIFIED

8

THEMES GENERATED

NO

UK STUDIES FOUND

BACKGROUND

Simulation-based learning is embedded in midwifery curricula worldwide,, supporting skill rehearsal in safe environments. High-fidelity simulation is effective but resource-intensive; low-fidelity approaches offer scalable, accessible alternatives. During the student-to-practitioner transition, confidence, and preparedness are critical to safe, autonomous practice. Evidence on low-fidelity simulation in midwifery specifically was fragmented.

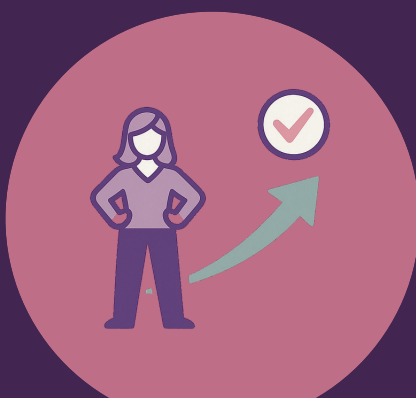
EVIDENCE

Studies were concentrated geographically, with the majority conducted in Turkey and Iran. Most studies reported improvements in confidence, knowledge, skills, or preparedness for practice. Methodological quality was moderate. Considerable heterogeneity limited direct comparison. No UK-based studies were identified, highlighting an important evidence gap.

CONSIDERATIONS

! Predominantly self-reported outcomes: confidence ≠ competence
! No longitudinal follow-up: sustainability of gains unknown
! Small sample sizes, quasi-experimental designs predominate
! No UK studies: transferability uncertain
! Heterogeneity precluded meta-analysis

KEY FINDINGS



CONFIDENCE IMPROVED



ANXIETY REDUCED



SKILLS IMPROVED



SATISFACTION INCREASED



KNOWLEDGE IMPROVED



BALANCED ADVANTAGE

WHAT MAKES SIMULATION EFFECTIVE



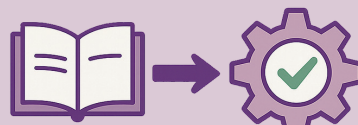
PROTECTED PRACTICE

Kinaesthetic, procedural practice in safe environments supports skill acquisition, particularly where clinical placement is limited or variable.



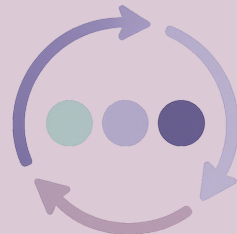
EMOTIONAL SAFETY

Simulation reduces anxiety and fear of harming patients. Psychological safety is not inherent; it is actively shaped by facilitation style and group dynamics.



THEORY INTO PRACTICE

Simulation bridges classroom and clinical experience, enabling safe transfer of theory into practice. However, evidence for long-term transfer to clinical decision making remains limited.



REPETITION & FAMILIARITY

Repeated practice drives incremental improvement and confidence. This aligns with Bandura's self-efficacy theory: mastery experience builds capability.



FACILITATOR SUPPORT

The facilitator is integral; structured feedback, clear instruction, and guided reflection drive learning outcomes. Educator preparation may matter as much as simulation equipment itself.



FUNCTIONAL AUTHENTICITY

No consistent superiority of high-fidelity vs low-fidelity simulation was seen. Meaningful task engagement, not technological realism, drives early educational outcomes.



ACTIVE PARTICIPATION

Learners in observational roles derive fewer benefits compared with actively engaged learners. Hierarchical interprofessional settings may restrict active participation and may reproduce clinical power dynamics.



PRACTICE READINESS

Simulation is frequently associated with greater confidence and perceived preparedness for clinical practice. Simulation is most effective when integrated with clinical placement preparation.

WHAT THIS MEANS

Effective simulation depends on design, not technology alone. Key simulation mechanisms can be delivered through low-cost digital approaches. Digital simulation may improve access to practice opportunities during placement. These principles informed the development of Set the Scene: Midwifery Edition.

IMPLICATIONS FOR...



...EDUCATORS

- Prioritise repeated, active sessions.
- Invest in facilitator training and development.
- Design structured role rotation.
- Integrate with clinical practice prep.



...CLINICIANS

- Low-cost resources are equally effective.
- Psychological safety requires facilitation, not assumption.
- Simulation bridges to placement, it does not replace it.



...POLICY MAKERS

- UK research is urgently needed.
- Fund facilitator development alongside equipment.
- Low-fidelity simulation is scalable and cost-effective.

TAKE-HOME MESSAGE

Effective simulation depends more on educational design than technological sophistication. Protected practice, psychological safety, participation, facilitation, and functional realism emerged as key mechanisms underpinning simulation. These principles will inform the development of Set the Scene: Midwifery Edition and highlight a clear need for UK-based research.

Future Directions

This review identified a significant UK evidence gap. Future research should evaluate:

- Digital simulation approaches
- Placement-based implementation
- Long-term learner outcomes
- UK midwifery education contexts

Scan for the full review and references.

