

Evaluating In-Situ Simulation Accessibility and Impact within Maternity services

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Introduction

In situ simulation (ISS) enables rehearsal of time-critical maternity emergencies within the real clinical environment using the multidisciplinary team (MDT) and actual equipment.

This service evaluation, part of a wider research project, explored whether a structured ISS programme:

- Improved awareness and confidence
- Enhanced perceived educational value
- Identified organisational enablers for sustainable implementation



Methods

Three ISS maternity emergency scenarios based on real clinical events:

- **Scenario 1:** Placental abruption – from triage to theatre
- **Scenario 2:** Maternal arrest and perimortem section – in Emergency department
- **Scenario 3:** Maternal sepsis – in the ward

Survey created utilising Likert scales (**Low: 1–3, Moderate: 4–7, High: 8–10**) to evaluate understanding of role, system and confidence in managing obstetric emergencies.



Data Collection

- Pre– and post-simulation surveys
- 4–6 week follow-up
- Qualitative review by external collaborators

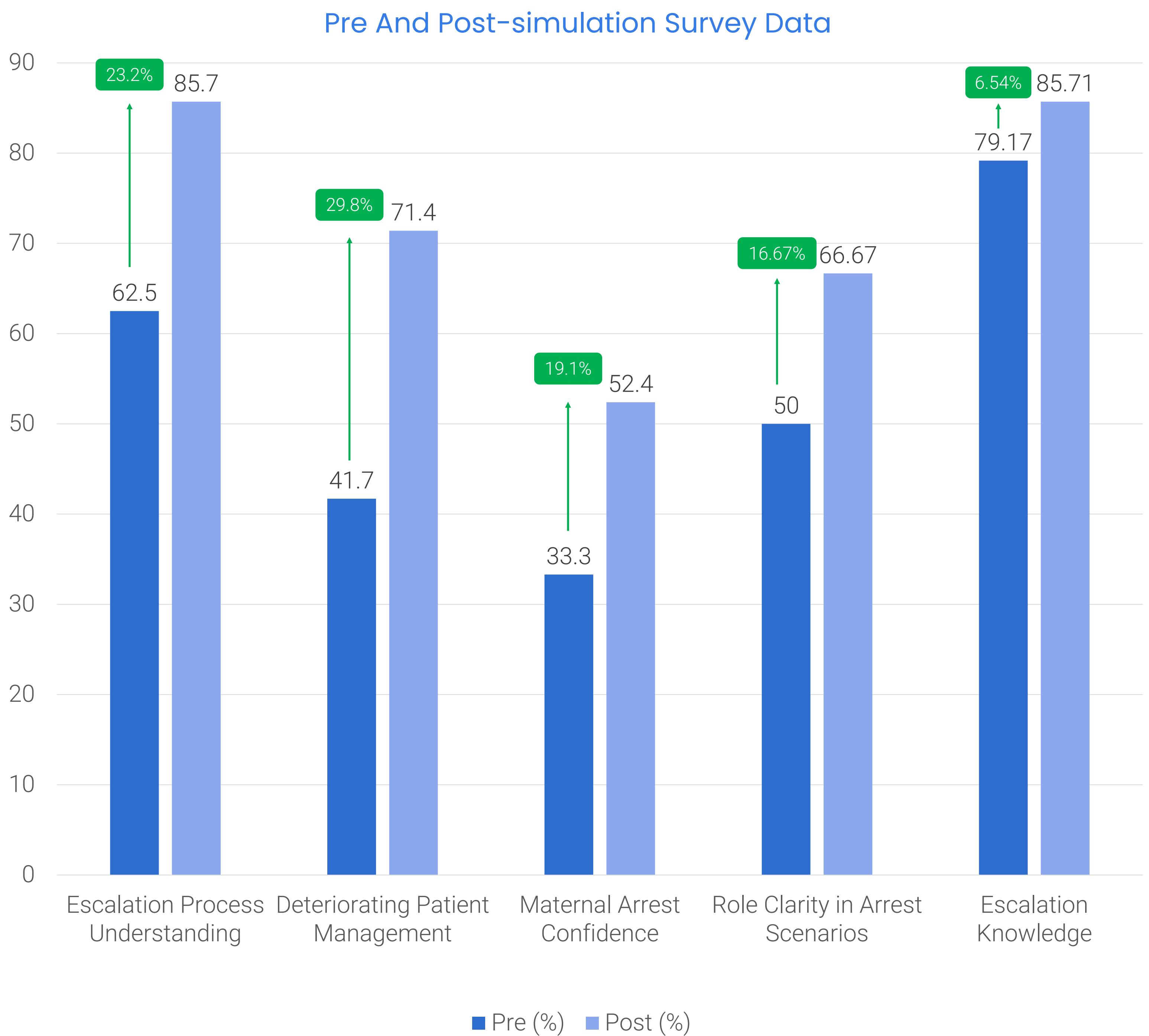


Analysis

Absolute percentage point (pp) changes (Δ)

Key Findings

- Mean scores increased in 5 of 6 domains
- Low-band ratings eliminated post-ISS



Teamwork Findings

Shift from High → Moderate ratings

- Likely due to recalibration of self-assessment
- Not indicative of reduced performance



Qualitative Findings

- Challenges with communication within the team
- Use of language and its implications
- Uncertain leadership when situations escalate
- Identification of organisational barriers and workflow inefficiencies



Discussion

The ISS programme was associated with:

- Improved escalation knowledge
- Increased confidence in maternal arrest scenarios
- Better role clarity
- Enhanced management of deteriorating patients



Strengths

- Real clinical environment
- MDT engagement
- Staff based solution generation for challenges encountered



Challenges

- Integration with clinical workload
- Service pressures (e.g. bed capacity)

Conclusion

In situ simulation is a feasible and sustainable training model in maternity care when supported by:

- Protected training time
- Structured pre-briefing and debriefing
- Locally relevant scenarios

ISS not only improves individual confidence but also strengthens system awareness and patient safety

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