

Enhancing Team Competency in Complex Fetal Anomalies Through Simulation-Based Clinical Rehearsal (SbCR) within the ACTIONS framework.

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Introduction

- Complex fetal anomalies (sacroccocygeal teratoma, fetal neck lymphovascular malformation, conjoined twins) require coordinated multidisciplinary care.
- Objective:** To evaluate the impact of SbCR within the ACTIONS framework (Anomaly, Concern, Team, Involve, Operationalize, Neonatal & Maternal Outcomes, Simulation) on interprofessional collaboration and team competency

Methods

- Design:** Cross-sectional survey (14 months, BC Women's Hospital).
- Participants:** Maternal-fetal medicine, neonatology, anesthesiology, pediatric surgery, nursing.
- Framework:** ACTIONS model guided preparations & SbCR with debriefs (PEARLS).
- Tool:** IPEC Competency Self-Assessment – communication, teamwork, role clarity, decision-making.
- Analysis:** Descriptive statistics, t-tests, Wilcoxon, chi-square, Spearman's correlations

Results

- N = 41 providers (30 female, 11 male).
- Competency scores: High overall (M = 87.1, SD = 14.2).
- No significant differences by age or gender ($p > 0.2$).
- Males scored slightly higher (91.3 vs. 85.9, $p = 0.041$) due to more simulation exposure.
- Correlations: Clarity ($\rho = 0.47$, $p = 0.002$), Usefulness ($\rho = 0.50$, $p < 0.001$) positively linked to competency.

Variable	rho	P-value
Clarity	0.470	0.0019
Usefulness	0.497	0.00095

Table 1. Spearman's Correlation Between Total Score and Simulation Variables

Conclusion

- SbCR within the ACTIONS framework** improved preparedness and collaboration.
- Unbiased by age or gender → inclusive training tool.
- Clarity & usefulness of simulation strongly linked to improved team competency.
- Supports SbCR as a sustainable approach for rare complex fetal anomalies

ACTIONS



Figure 1. ACTIONS Acronyms

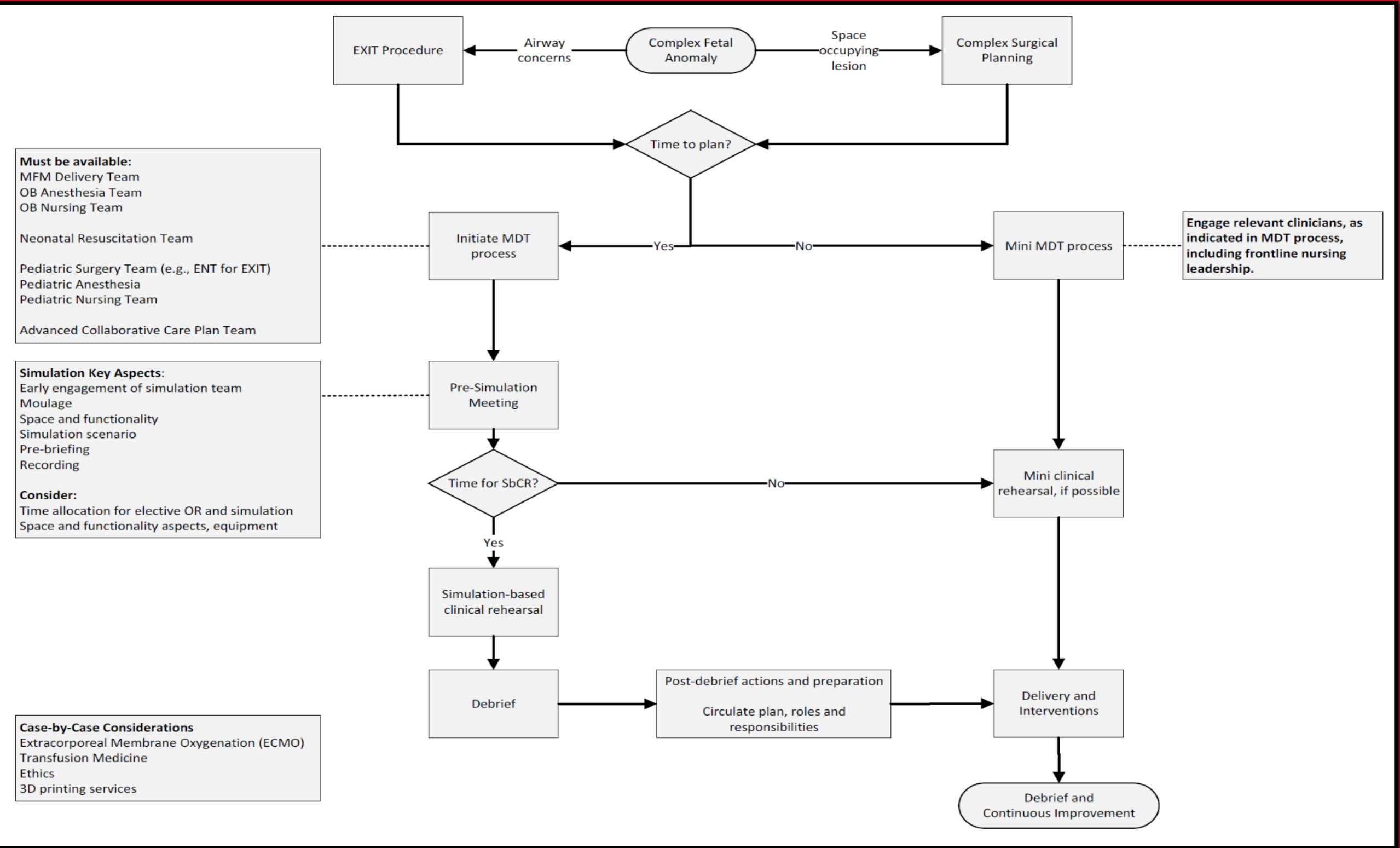


Figure 2. ACTIONS framework

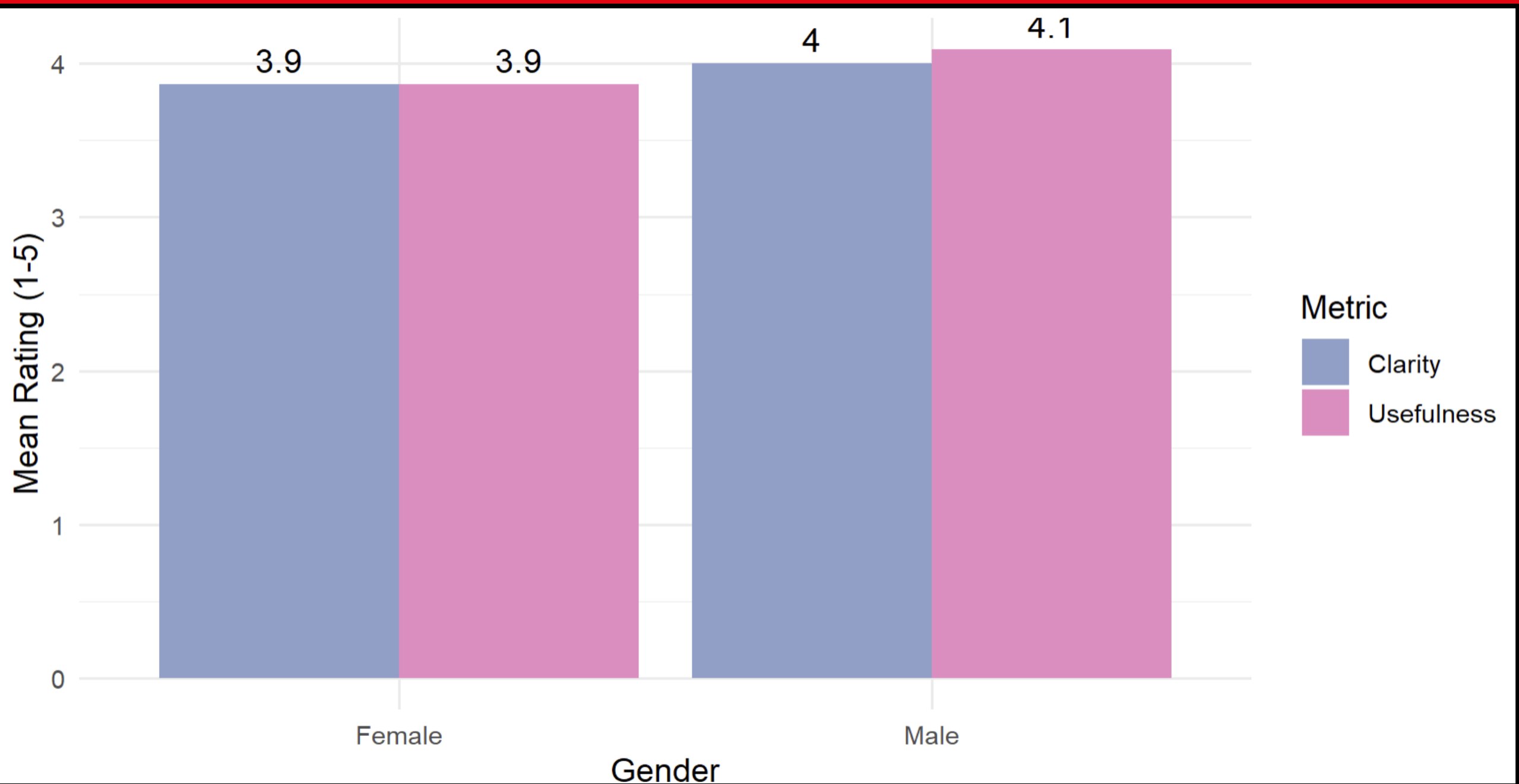


Figure 3. ACTIONS framework