

CAN SIMULATION INFLUENCE WILLINGNESS TO ADOPT TELEHEALTH TECHNOLOGY FOR SEPSIS?

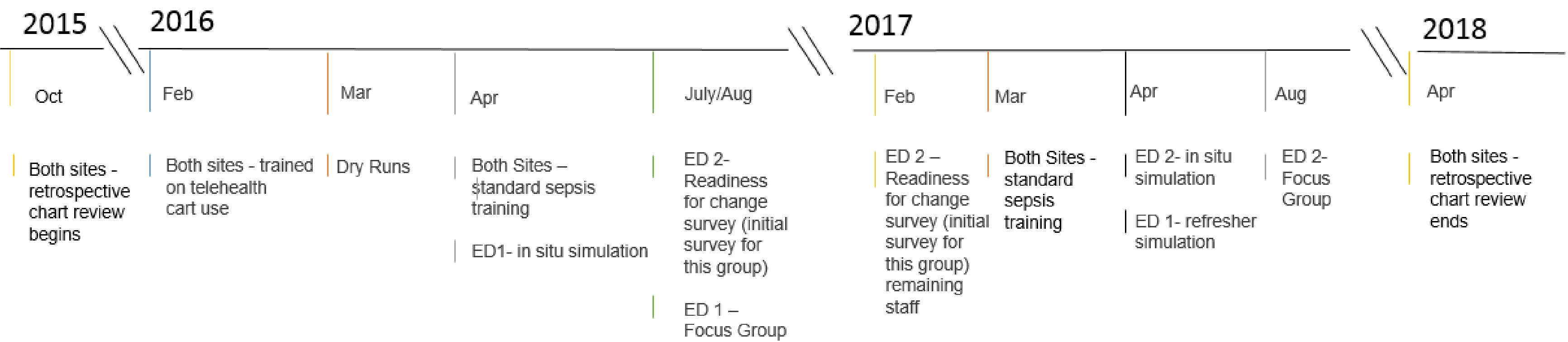
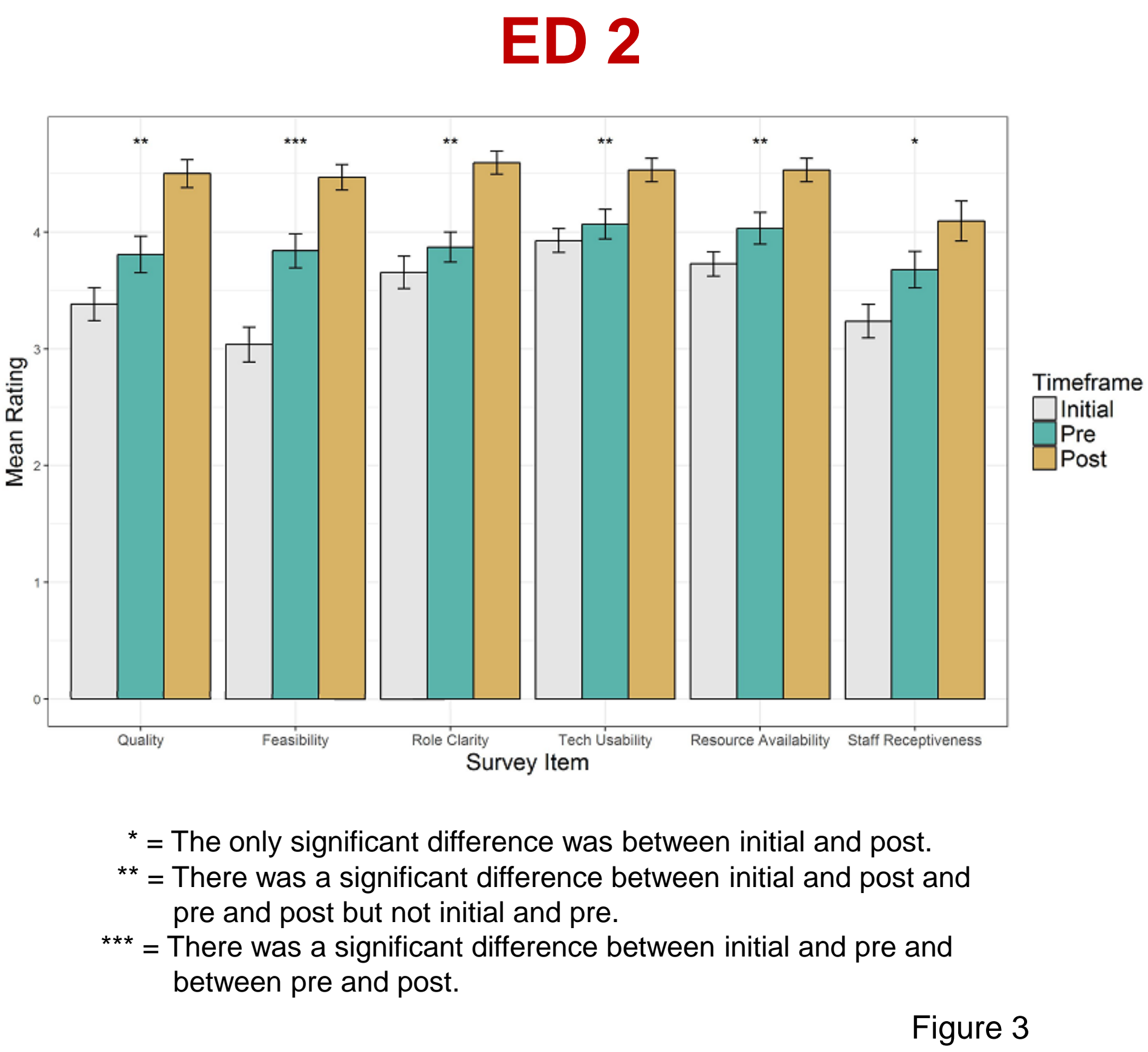
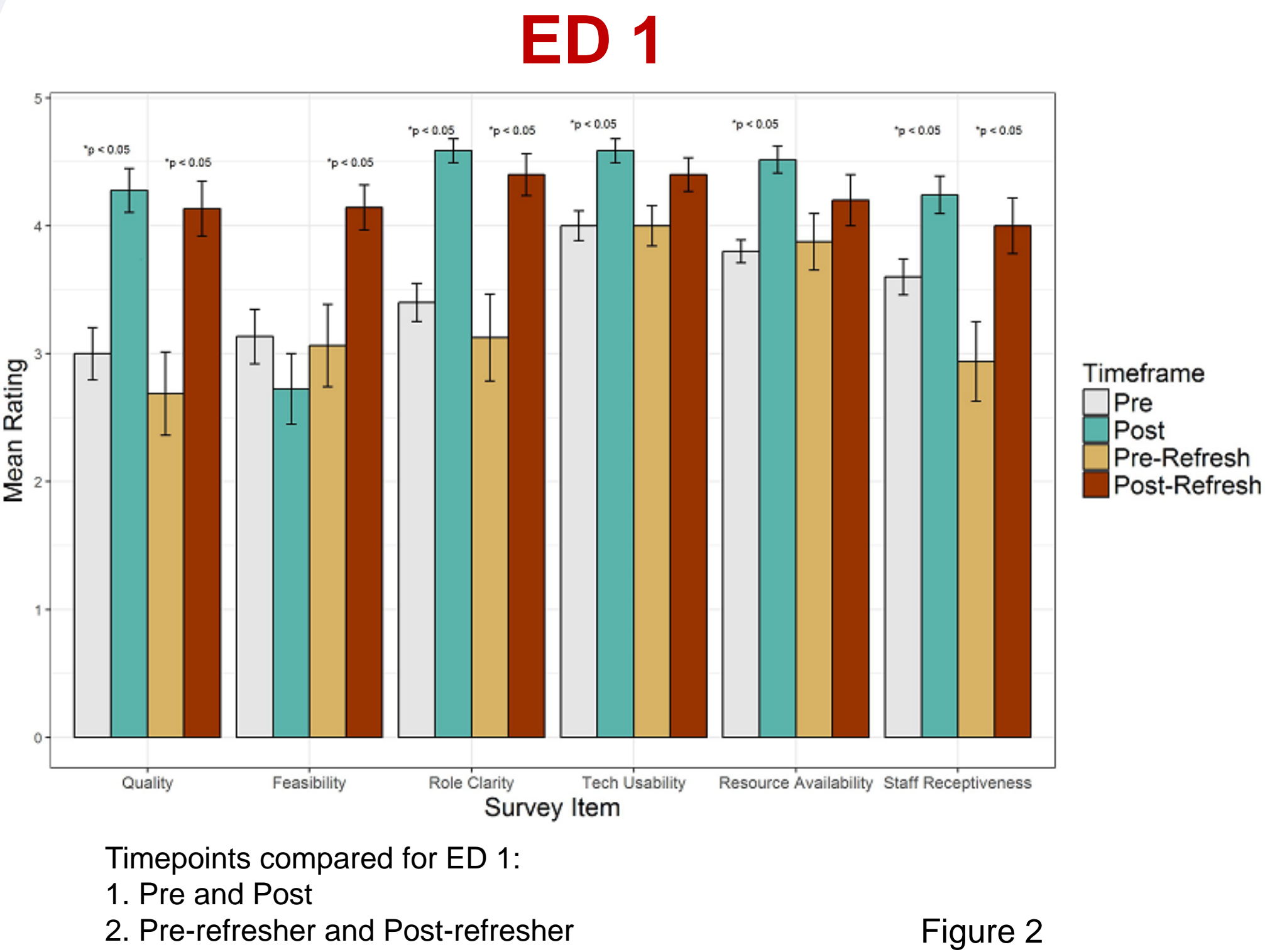
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OBJECTIVE

To assess, via survey methods, the influence of in situ simulation on willingness to adopt, and confidence in use of, telehealth technology at two rural emergency departments (EDs) that were encouraged to use telehealth for the care of severe sepsis/septic shock patients.

METHODS

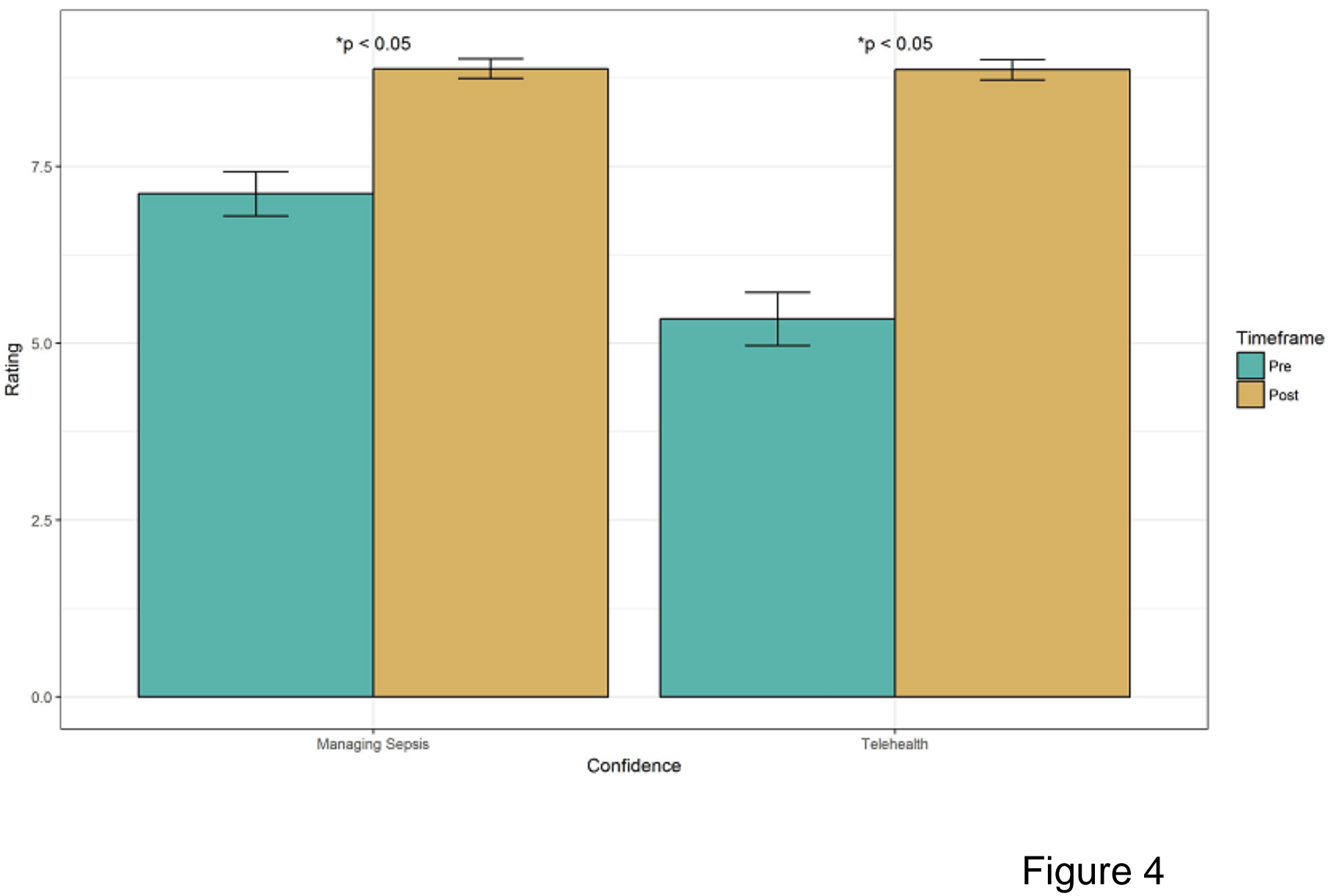
In year one, rural ED1 did the telehealth rollout support simulations, and the technology was made available via standard methods at rural ED2. After one year, ED1 had refresher in situ simulations and ED2 had rollout simulations [Figure 1]. We conducted simulations in a 3-Act-3-Debrief 60-minute format that interspersed training in telehealth use, debrief/discussion of barriers and facilitating factors, and review of sepsis care. Our sample size goal was 80% nurse participation. Readiness to adopt telehealth technology was evaluated at each time point by 6 questions (content areas - improving quality of care, feasibility, role clarity, ease of use, resources, and receptiveness to use) selected from a previously validated survey using a 5-point Likert scale (1 = strongly disagree, 5=strongly agree). Separate Mann-Whitney U Tests were used for ED 1, comparing pre vs. post simulation and pre-refresh vs. post-refresh simulation [Figure 2]. The K-W rank sum test was used for ED 2, comparing initial, pre and post surveys [Figure 3]. Self-confidence ratings (10 point scale) for rollout simulations only were compared with paired t-tests [Figure 4].



RESULTS

Enrollment targets were met for participation at ED1 (20 nurses, 5 providers, 5 others) and ED2 (22 nurses, 4 providers, 4 others). See telehealth survey results in [Figure 2-3] and learner confidence changes pre-post simulation in [Figure 4].

Staff Confidence Pre/Post Simulations



CONCLUSIONS

In situ simulation is a promising method to influence willingness to adopt telehealth technology in the care of septic patients. Reduced willingness found 12 months post simulation intervention may in part be due to changes in staff and simulation participants, and more frequent refreshers may help train new staff and solidify gains. Many other barriers and facilitating factors likely contribute to telehealth engagement, and future efforts should qualitatively explore influences of use and quantitatively assess the impact of this training via tracking telehealth use, care process change markers, and clinical outcomes.



eICU nurses participated in the simulations at the rural EDs via the telehealth cart. Figure 5

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