

Implementing TeamSTEPPS® Training to an Interdisciplinary Healthcare Team to Improve Teamwork

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Background

Positive teamwork and communication skills are integral within an interdisciplinary healthcare team for the successful care of outpatient, surgical patients. Poor teamwork and communication skills can negatively impact the team and contribute to adverse patient outcomes. Gaps in teamwork and communication were identified in an ambulatory surgery center; potentially putting patients at increased risk. A team training intervention would provide foundational teamwork and communication skills and tools that may be implemented and customized to the ambulatory surgery setting. The purpose of this quality improvement (QI) project was to implement an evidence-based TeamSTEPPS® training program to improve teamwork, team communication and team performance.

Methods

Design A one group, pre-test, post-test design was utilized.

Setting An outpatient surgery setting

Sample The interdisciplinary healthcare team of surgeons, nurses and unlicensed techs (N=25).

Intervention A TeamSTEPPS® Essentials' training program was implemented for the team, with a focus on 3 tools (as shown below).

Measurement Two TeamSTEPPS® questionnaires were used to measure the effects of the intervention, the Teamwork Attitude Questionnaire (T-TAQ) and the Teamwork Perception Questionnaire (T-TPQ). Near-miss events were counted 30 days pre-intervention and 30 days post-intervention.

Analysis A repeated measures ANOVA was utilized and a post-hoc Pairwise Comparison test was run to measure effect size.

Results

The repeated measures ANOVA showed that scores on the T-TAQ measuring individual attitudes improved for all 5 team constructs when compared from the pre to post and 30-day time periods Table 1.

The team's perception of the teamwork attitudes as measured by the T-TPQ questionnaire showed improvement when compared from the pre scores to the post and 30-day post time periods Table 1.

All constructs tested showed that a moderate effect size was achieved Table 1.

The near-miss outcome was inconclusive as there were no documented possible near-miss scenarios 30-days prior to or 30-days after the intervention.

Conclusions

Implementing a TeamSTEPPS® training program improved attitudes and perceptions of teamwork and communication in an ambulatory surgery team. All staff members reported using the newly acquired tools daily.

This QI project cost approximately \$3,600.00 to implement. This included the team's regular hourly wages for attendance in the course and a Master TeamSTEPPS® Train the Trainer course attended by the core leadership team to learn the principles of implementation and the steps necessary to customize the tools to fit the needs of the organization.

Objectives

The purpose of the QI project was to:

- (1) improve the interdisciplinary healthcare team's perception of teamwork and attitude,
- (2) determine the sustainability of the healthcare team's perception of teamwork, attitude, and communication, and
- (3) decrease the number of possible near-misses for 30 days following the intervention.

Team STEPPS TOOLS:

SBAR

Situation (S)
Background (B)
Assessment (A)
Recommendation (R)

HUDDLE. (SOS PS)

Staffing (S)
Observers (O)
Schedule (S)
Patients (P)
Supplies (S)

DEBRIEFING

What went well?
What didn't go so well?
How can we improve?

Table 1 Results of TeamSTEPPS® Training

	Pre	Post	Post30	M1- M3
T-TAQ				
Team Structure	26.96 (2.62)	28.92 (1.80)	29.20 (1.38)	F (2, 48)=31.81, P<.001, ηP2=.570
Leadership	27.88 (2.64)	29.28 (1.51)	29.52 (1.16)	F (2, 48)=19.94, P<.001, ηP2=.442
Situation Monitoring	27.60 (2.81)	29.04 (1.68)	29.36 (1.38)	F (2, 48)=13.63, P<.001, ηP2=.362
Mutual Support	26.84 (2.46)	28.72 (1.84)	29.04 (1.51)	F (2, 48)=22.70, P<.001, ηP2=.486
Communication	26.80 (2.24)	28.48 (1.71)	28.76 (1.74)	F (2, 48)=18.61, P=.001, ηP2=.437
T-TPQ				
Team Structure	28.80 (3.42)	31.40 (2.69)	32.76 (2.37)	F (2, 48)=25.54, P<.001, ηP2=.516
Leadership	29.60 (4.54)	31.88 (3.48)	33.24 (2.68)	F (2, 48)=18.95, P<.001, ηP2=.441
Situation Monitoring	27.64 (3.55)	30.08 (3.21)	32.04 (2.59)	F (2, 48)=36.97, P<.001, ηP2=.606
Mutual Support	27.48 (4.04)	30.60 (3.07)	31.60 (2.90)	F (2, 48)=34.54, P<.001, ηP2=.590
Communication	29.44 (3.32)	31.00 (3.04)	32.96 (2.67)	F (2, 48)=24.81, P<.001, ηP2=.508

Note: This repeated measures ANOVA reviews the data at the three time points for comparison.

Recommendations

This QI project was effective in improving the teams' attitudes and perceptions of teamwork. This evidence-based training program is a feasible option for use on interdisciplinary healthcare teams in ambulatory surgery settings.

Limitations

Due to the constraints impacting the overall timing of this project, a longer study time would be appropriate. In order to evaluate longer-term sustainability.