

Agency for Healthcare Research and Quality

Modeling Risk and Reducing Liability through Better Communication and Teamwork

FINAL REPORT

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TITLE PAGE

Title: Modeling risk and reducing liability through better communication and teamwork

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ABSTRACT

Purpose: The purpose of this project was to pilot test the impact of a shortened version of the AHRQ TeamSTEPPS programs for patients and their family members. **Scope:** A total of 28 patients/family members participated in the pilot test of the TeamSTEPPS curriculum. **Methods:** To assess the effectiveness of our TeamSTEPPS intervention, data were collected on two of Kirkpatrick's four levels of evaluation. We collected reaction data to assess participant "reactions" to training at two levels: (a) did participants like the training (i.e., affective reactions); and (b) did the participants find the training useful (i.e., instrumentality)? Participants completed the reaction questionnaire post training only. Second, measures of learning in terms of both participant attitudes toward teamwork and knowledge of teamwork were collected. **Results:** Participants thought the training was useful and had very positive reactions to the curriculum and its potential future implementation and use. Moreover, although the training did not affect participant attitudes, it did increase participant knowledge. These results seem reasonable, because participant attitudes regarding the importance of teamwork in the delivery of safe care were extremely positive prior to training; however, participants were unlikely to know much about TeamSTEPPS prior to training.

Key Words: Teamwork, TeamSTEPPS, training, patient safety, care coordination.

PURPOSE

Since the release of the Institute of Medicine (IOM) report, *To Err is Human*, the argument that teamwork is essential for the effective delivery of healthcare has been undisputed. In 1999, Risser and colleagues demonstrated that teamwork breakdowns in the emergency department (ED) were a critical root cause of sentinel events at eight hospitals, costing approximately \$3.50 per ED visit (Risser, Rice, Salisbury, & Simon, 1999). Mann, Marcus, and Sachs (2006) found that team training improved team performance in labor and delivery (L&D) and reduced the number of claims made against the Labor and Delivery (L&D) service at Beth Israel Deaconess Medical Center by 50% over a 3-year period. Arguably, team training has tremendous potential as a risk mitigation and liability reduction strategy because of its ability to improve care quality. To address this vital need, the Agency for Healthcare Research and Quality (AHRQ) released TeamSTEPPS® (Team Strategies and Tools to Enhance Performance and Patient Safety) as a public domain resource to improve team performance and coordination of care within the national health system.

In addition to improving teamwork, another prevailing strategy for improving care quality and reducing liability claims is full disclosure. Research has shown that, when physicians disclose their mistakes, payouts for claims against the doctor and the hospital are reduced. Many states now have medical disclosure laws that require physicians and health systems to disclose information related to the event to the patient and the patient's family (patient/family). In their MEDiC legislation, Clinton and Obama (2006) proposed that hospitals should receive grant money for being upfront with patients/families after a medical error. They would then immediately negotiate compensation with the patient or patient's family. The patient's family would still be able to bring their case to court; however, it was seen that this was less likely to happen.

A central tenant of improving teamwork in healthcare is that the patient and the patient's family members are critical members of the team. The concept of patient-centered care and the growing implementation of patient-centered medical homes reinforce the important role patients and their family members play in the delivery of

effective and efficient healthcare. Studies have shown increases in patient satisfaction and self-efficacy when patients/families are included in the care team (Dunst et al., 2007). Therefore, from both a quality and a risk-and-liability standpoint, it is important to understand how to include patients/families in the care team, how to equip patients/families to be effective team members, and how to communicate with patients/families about the risks and mistakes that can occur throughout the care process. Combined, inclusion of patients and patient family members in the care team and preparation through team training should yield better communication between providers and patients/families and, as a result, mitigate risk and reduce liability claims. Research, however, has yet to specify how to include patients and their family members as part of the care team, how to train patients and their family members to be effective team members, what this training should consist of, when this training should occur, and what would be the result. Such work is critical in understanding how to foster better communication between doctors and their patients (i.e., teamwork). To address these important issues, this project sought to develop and pilot test a teamwork intervention(s) based on AHRQ's TeamSTEPPS® program that teaches patients/families how to be members of the care team and enhances communication between patients/families and providers.

SCOPE

A total of 28 patients/family members participated in the pilot test of the TeamSTEPPS curriculum. Participants were paid \$150.00 to participate. Because we were providing significant compensation for participation, only two family members were allowed to participate from any given family. Participants were recruited from Mother-Baby educational classes at an 850-bed academic medical center.

Of the 28 participants, 15 were female, 12 were male, and one participant did not complete the background form. Five of the female participants were currently pregnant, and 11 of the participants had attended a parenting or prenatal class. Five of the participants felt that the care they had received regarding Labor and Delivery was inadequate, and 10 participants had either experienced or had a family member that had experienced a medical mistake.

METHODS

To assess the effectiveness of our TeamSTEPPS intervention, data were collected on two of Kirkpatrick's four levels of evaluation: (1) Reaction, (2) Learning, (3) Behavior, and (4) Outcomes (Kirkpatrick & Kirkpatrick, 2006). Specifically, we collected reaction data to assess participant "reactions" to training at two levels: (a) did participants like the training (i.e., affective reactions); and (b) did the participants find the training useful (i.e., instrumentality)? Participants completed the reaction questionnaire post training only. Second, measures of learning in terms of both participant attitudes toward teamwork and knowledge of teamwork were collected. To measure attitudes, the TeamSTEPPS Teamwork Attitude Questionnaire (Baker, Amodeo, Krokos, Slonim, & Herrera, 2010) was administered prior to and after the training. To assess knowledge, items from the TeamSTEPPS Learning Benchmarks Tool were administered to participants prior to and after the training.

The pilot test procedure was the same for all three training sessions. First, participants completed an informed consent and background information form. This was followed by participants completing the T-TAQ and the Learning Benchmarks Test. Third, the PI, a TeamSTEPPS Master Trainer, conducted the training session using the materials found in Appendix H. The training sessions lasted approximately 45 minutes, and the PI engaged the participants in discussion about specific issues as well as facilitated the lone exercise on using SBAR.

RESULTS

Results are presented for participant reactions first, followed by participant knowledge.

Participant Reactions

Overall, participant reactions were positive regarding the training. Across the instrumentality and affective items, the overall mean rating was 4.18 on a 5-point scale, in which 1=Strongly Disagree and 5=Strongly Agree. Moreover, three participants rated each of the reaction items as Strongly Disagree. However, it is not possible to determine if that was in fact their intent. If we remove these items from the analysis, the overall mean rating for the reaction items was 4.55.

The items, “This training would be appropriate for patients in all care settings” and “This training should be offered by Carilion in the future” received the highest ratings: 4.36 in both cases. The item, “The tools appear easy to use” received the lowest rating, 4.04.

Participant Learning

Participant knowledge was measured by assessing participant attitudes and knowledge pre and post training. Table 1 presents the results for participants’ attitudes. Referring to the table, attitudes were generally positive prior to conducting the training and after training. Mean comparisons both at the subscale and across all items on the T-TAQ produced no significant effect for the training.

Table 1: Participants Attitudes Pre and Post Training

T-TAQ Scale	Pre-Training Mean	Post-Training Mean
Team Structure	4.49	4.48
Leadership	4.70	4.67
Situation Monitoring	4.48	4.58
Mutual Support	4.46	4.44
Communication	4.42	4.57
T-TAQ Total	4.51	4.55

Note: N=28. All mean comparisons were nonsignificant.

Regarding participant knowledge, the mean score on the Learning Benchmarks was 10.86 items correct of the 15 items included on the multiple-choice test. After training, the mean number of items correct was 12.28. A dependent t test found the mean scores to be significantly different ($t=5.16$, $p<.05$), indicating that the training produced significant gains in participant knowledge.

Discussion

The goal of this study was to develop and pilot test a version of TeamSTEPPS designed for patients/families in L&D. Overall, 28 patients/families participated in a 45-minute version of TeamSTEPPS that taught the participants several tools and strategies (refer to

Appendix H). The results showed that participants thought the training was useful and had very positive reactions to the curriculum and its potential future implementation and use. Moreover, although the training did not affect participant attitudes, it did increase participant knowledge. These results seem reasonable, because participant attitudes regarding the importance of teamwork in the delivery of safe care were extremely positive prior to training; however, participants were unlikely to know much about TeamSTEPPS prior to training. In combination, these results appear to support the efficacy of TeamSTEPPS training for patients/families, especially in clinical environments like L&D, where patient/family education is common.

LIST OF PUBLICATIONS AND PRODUCTS

There have been no publications at the time of this report.