IMPROVING STAFF COMMUNICATION AND TEAMWORK AT A PSYCHIATRIC DAY PROGRAM

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Abstract

Background: The Institute for Healthcare Improvement has identified four foundational principals for making health care systems and processes safer and more reliable: Standardized processes and care, Simplified processes, Reduced autonomy, and Highlighting deviations from practice. They recommend use of the TeamSTEPPS Situation, Background, Assessment, Recommendation/Request (SBAR) technique to maximize communication between members of healthcare teams. TeamSTEPPS is a training program that was developed by the Agency for Healthcare Research and Quality (AHRQ) and the Department of Defense (DoD), with the most recent version being TeamSTEPPS 2.0. It consists of five key principals: Team Structure, Communication, Leadership, Situation Monitoring, and Mutual Support.

Local Problem: A behavioral health provider in Baltimore City recognized the need to improve teamwork, communication, and efficiency during shift-change report among staff members at their psychiatric day program.

Interventions: Fall of 2017, training was done with staff members at this psychiatric day program on TeamSTEPPS 2.0's key principals of Communication and Leadership. October 3, 2018, training was done on the key principal of Situation Monitoring, implementation of the mnemonic "I PASS THE BATON" – the new evidence based standard for handoffs, and refresher training on Communication and Leadership. Participants completed the Teamwork Attitudes Questionnaire (T-TAQ) prior to training and again after a seven-week implementation period.

Results: Eleven staff members (n=11) were trained on October 3, 2018. Comparison of the pre-training and post-training T-TAQ questionnaires yielded evidence of improved staff attitudes toward team structure (38%), leadership (9%), situation monitoring (23%), and communication (38%), as evidenced by a greater number of *Strongly Agree* responses on the post-training questionnaires. Although there was a 14% improvement in the number of Strongly Agree responses for the category of mutual support, the overall percentage of Strongly Agree responses remained fairly low at only 33%. This agency continues to encourage its staff members to utilize the "I PASS THE BATON" mnemonic during shift reports.

Conclusions: TeamSTEPPS 2.0 is a good fit for improving teamwork, communication, and efficiency of shift-change reports for this psychiatric day program. Continued training and refresher training, as well as inclusion of this training as competencies for new-hires, will be essential for maintaining these skills and improving patient outcomes.

Background and Significance of the Problem

Accountable healthcare organizations have a responsibility to deliver consistently safe, reliable, and effective care to their clients. The Institute for Healthcare Improvement (IHI) has identified four foundational principles for making health care systems and processes safer and more reliable: 1. **Standardize** processes and care so that all employees do things the same way, thus making it more apparent when and why processes fail. 2. **Simplify** processes so they are easy to follow and there are less opportunities for mistakes. 3. **Reduce autonomy** by setting the expectation that care delivery follows evidence-based best practices, unless contraindicated for specific patients. 4. **Highlight deviation from practice** through documentation of why the decision to deviate from the standard of care was made (IHI Multimedia Team, 2017).

The framework for safe, reliable, and effective care includes creating a culture of leadership, psychological safety, accountability, teamwork and communication, and negotiation, as well as a learning system of leadership, transparency, reliability, improvement and measure, and continuous learning (Frankel, Haraden, Federico, & Lenoci-Edwards, 2017). The IHI endorses use of the Situation, Background, Assessment, Recommendation/Request (SBAR) technique as a framework for communication between members of health care teams, to report information about a patient's condition (Institute for Healthcare Improvement, 2017). The SBAR technique originated from TeamSTEPPS, a training program developed by the Agency for Healthcare Research and Quality (AHRQ) and the Department of Defense (DoD), to create a teamwork system which offers a powerful solution to improving collaboration and communication within institutions (Agency for Healthcare Research and Quality, 2017). There are five key principals presented in the TeamSTEPPS course: Team Structure, Communication, Leadership, Situation Monitoring, and Mutual Support (Agency for Healthcare Research and

Quality, 2017). The complete TeamSTEPPS training program introduces simple, standardized, evidence-based techniques into organizations, which meet the IHI's recommendations for accountable healthcare organizations.

Identified Problem

A behavioral health provider in Baltimore City recognized the need to improve teamwork, communication, and efficiency during shift-change report. They identified a lack of training and consistency with communication among direct care staff members employed in their psychiatric day program, which resulted in lengthy reports during shift change. These reports also lacked pertinent information necessary for continuity of care among their program participants, which increased the risk of poor patient outcomes.

Theoretical Framework

The Change Management Model was developed by Kurt Lewin, based on factors that influence people to change. This model specifies three stages which are necessary to make change successful: Unfreeze, Change, and Refreeze. Unfreezing involves recognition that change is necessary, and preparing for this change and a shift out of the current comfort zone. Change is a process of transition as people work through their fears and insecurities to learn something new and become comfortable with it. Refreezing is a period of time where stability is re-established and the new behaviors are actively incorporated into the setting. This model works well within the setting of a psychiatric day program because it allows for identification of an area for change, training on the change, and implementation of this change while providing support and continued monitoring of progress.

Purpose and Goals

TeamSTEPPS 2.0 is the most recent version of the TeamSTEPPS training program, developed by the AHRQ and DoD. In the fall of 2017, the first implementation of TeamSTEPPS 2.0 was done with this identified behavioral health agency. The topics of Communication and Leadership were addressed by training staff on the Situation, Background, Assessment, and Recommendation/Request (SBAR) tool for report giving, and the Brief checklist. The TeamSTEPPS 2.0 implementation with this agency was continued in Fall 2018, by training staff on Situation Monitoring, the third of five key principals in the TeamSTEPPS 2.0 curriculum, and the "I PASS THE BATON" mnemonic for handoffs, from the Communication principal. The purpose of situation monitoring was to ensure that new or changing information was identified for communication and decision-making, leading to team members being effectively supported (Agency for Healthcare Research and Quality). The four components of situation monitoring are represented in the acronym STEP: Status of the resident, Team members, Environment, and Progress toward goal (Agency for Healthcare Research and Quality). The purpose of training staff on the "I PASS THE BATON" mnemonic was to provide staff members with a simple structure for giving shift change reports, which management identified as the key issue they wanted to be addressed. The components of this mnemonic are: I=Introduction, P=Patient, A=Assessment, S=Situation, S=Safety concerns, *The*, B=Background, A=Actions, T=Timing, O=Ownership, and N=Next. This training, combined with refresher training on SBAR and Brief checklist, added additional tools to the caregivers' toolboxes for reporting to other staff members and supervisors during shift-change.

The purpose of this project was to implement training on situation monitoring and report-giving skills by using the STEP tool and "I PASS THE BATON" mnemonic to improve

communication among direct care staff and supervisory staff members. The short-term goals of this project were to: 1. Improve communication between direct care staff and supervisory staff by integrating the STEP process into the standard of care for the psychiatric day program clients, and by standardizing the shift-change reports with the use of the "I PASS THE BATON" mnemonic. 2. To evaluate attitudes toward teamwork among all staff members through the use of the TeamSTEPPS 2.0 Teamwork Attitude Questionnaire (T-TAQ) (*Appendix B*). The long-term goal was to improve overall communication and attitudes toward teamwork among all staff members employed by this agency.

Literature Review

The need for improved teamwork and communication among all levels of staff when providing care for psychiatric day patients was the focus for this literature review (*Appendix A*). The review began with a broad look at the evidence supporting teamwork training among health care settings, then was followed by a more focused review of the literature supporting the use of TeamSTEPPS 2.0 as the teamwork training model to be implemented. The review concluded with a review of the available evidence supporting the TeamSTEPPS 2.0 model, specifically in improving teamwork and communication within psychiatric care settings.

In reviewing several literature reviews and meta-analyses examining the effectiveness of team approaches to healthcare, it was evident that not all teamwork training yields the same effects. Overall, the study results all showed improvements in communication, self-efficacy, and patient care health-related outcomes after implementation of team training, but there were some areas of concern. In a meta-analysis by Salas, Diaz-Granados, Klein, Burke, Stagl, Goodwin, and Halpin (2008), they stressed the importance of identifying the specific team outcomes prior to implementing the team training. In a literature review by Lemieux-Charles and McGuire

(2006) the authors also identified the positive outcomes which team training yields, but identified a lack of clear direction on how to create these teams, implement the training, and maintain these teams afterward. There are a large variety of training programs available in health care today, so it is important to choose the program which will meet the specific needs of the target organization. As mentioned in a systematic review by Buljac-Smardzic, Dekker-van Doorn, vanWijngaarden, and van Wijk (2009), existing research has evaluated a wide variety of these training programs, and the outcomes were mostly positive toward achieving the goals of improved communication and teamwork, but none of the studies looked at exactly the same intervention. Given the findings of this general review of the existing literature, it was clear that a specific teamwork training model needs to be selected and specific training outcomes need to be identified prior to implementation of the training program.

TeamSTEPPS 2.0 has been identified as the training model of choice by the target agency. In the health care setting the goals of improved teamwork are aimed at improving positive patient outcomes and decreasing negative patient outcomes (Vertino, 2014). A main advantage to this training model is that the curriculum is widely available on the internet and can be implemented by following the step-by-step instructions provided. TeamSTEPPS 2.0 aims to improve communication and exchange of information among all staff members and the findings prove that it is an effective means of achieving this (Vertino, 2014). In articles by Kathleen Vertino (2014) and Wong, Gang, Szyld, and Mahoney (2016) the authors found that in addition to improvements in communication among staff members, there was improvement in staff attitudes toward teamwork. Their articles also provided evidence of these changes being sustained long-term, when follow up at one year post-implementation. Since the specific area of interest is a psychiatric day program, this specialty setting needs to be analyzed more closely.

Psychiatric care involves a variety of multidisciplinary staff – from sitters and mental health aides to nurses and doctors. This variety of training and knowledge levels provides a challenge when encouraging a teamwork approach toward mental health care. In one study by Stead, Kumar, Schultz, Tiver, Pirone, Adams, and Wareham (2009) the authors found that a mental health facility that underwent TeamSTEPPS training had overall increased knowledge, skills, and attitudes for providing mental health care. Staff members felt more supported by upper management and felt that staff worked together to monitor and communicate patient progress and care plans. In another study by Mahoney, Ellis, Garland, Palyo, and Greene (2012) the authors found TeamSTEPPS to be a good fit for their mental health facility because it has been successfully incorporated into a large variety of practice environments in the past, and it is not a "top-down" approach to training. When working with such a wide variety of staff it is important to empower those considered to be at the "bottom of the ladder." The study by Mahoney, Ellis, Garland, et al. (2012) also found that the TeamSTEPPS model worked well for a mental health care setting because it allowed groups of staff to self-organize and follow a few simple rules, which fostered ownership, pride, and self-efficacy among all staff members.

In conclusion, the literature review on team training, and more specifically the use of the TeamSTEPPS 2.0 model in the psychiatric care setting, indicated that this model was a good fit for the target organization. Evidence indicated that by improving the culture of teamwork among an organization, there is improved communication among staff members, and improved self-efficacy necessary for improved self-confidence and leadership skills. This ultimately translates to better patient care outcomes relating to physical and mental health.

Project Implementation Plan

A quality improvement (QI) project focused on situation monitoring and communication was implemented with the target population of psychiatric day program clients and caregivers at a Maryland based behavioral health agency. Inclusion criteria for the patient population was all psychiatric day program clients age 18 or older. Inclusion criteria for the staff sample was all direct care staff members and supervisory staff members employed by the target agency. The sample size was determined by the number of staff members present at the training session.

This QI project was anticipated to take place over a 14-week period. During the **first two weeks**, the DNP project leader and site representative identified staff members to attend the training session and function as expert leaders during the implementation process and afterward. These individuals participated in the training session conducted during **week six**. At the beginning of the staff training session, all staff completed the TeamSTEPPS 2.0 Teamwork Attitudes Questionnaire (T-TAQ). This questionnaire is part of the TeamSTEPPS 2.0 curriculum and addresses staff attitudes toward team structure, leadership, situation monitoring, mutual support, and communication; and established the baseline attitudes of staff toward teamwork. The staff training session continued with overviews of the two modules implemented last fall on communication - SBAR, and leadership – Briefs. Training was then done on situation monitoring and the "I PASS THE BATON" mnemonic, as outlined in the instructor training module for TeamSTEPPS 2.0 found online. Training of all qualifying staff members was completed by the end of week six.

During **weeks seven through twelve** staff implemented the tools they learned for situation monitoring, as well as continued to implement the SBAR and Brief tools implemented last fall. The DNP project leader maintained communications with the site representatives,

providing support and assistance as needed. The site leaders monitored for adherence among staff members at the psychiatric day program.

During **weeks thirteen and fourteen**, the T-TAQ was delivered to the site representatives, who handed it out to all staff members who participated in the training session. This served as a way of evaluating changes in staff attitudes toward teamwork since receiving and implementing the TeamSTEPPS 2.0 training.

Data collected were the results of the T-TAQs completed by eleven staff members prior to training and at the end of the thirteenth week. Data analysis was done through quantitative analysis of the results of the T-TAQs. Ideally, staff attitudes toward team structure, leadership, situation monitoring, mutual support, and communication would increase once staff implemented the situation monitoring skills learned in the TeamSTEPPS 2.0 training sessions, as evidenced by a greater percentage of *Agree* and *Strongly Agree* answers on the post-implementation T-TAQs.

To minimize risks to participants, the T-TAQs were completed anonymously. A project description was submitted to the University of Maryland Baltimore (UMB) Institutional Review Board (IRB) for a Non-Human Subjects Research (NHSR) determination. Approval to implement the DNP project was also sought from the target organization.

In order to achieve sustainability, it will be important for the facility to continue training new staff members on the TeamSTEPPS 2.0 curriculum. To facilitate the changes learned in the training session, staff were supported as they implemented these changes. The TeamSTEPPS 2.0 tools for situation monitoring and the "I PASS THE BATON" mnemonic for report giving should be included as a competencies in new staff orientation manuals, and the organization will need to need to determine how to best incorporate these into their current new-hire training

curriculum. The organization's management should continue to monitor for compliance with situation monitoring tools, as indicated by use of the "I PASS THE BATON" mnemonic during shift reports and overall improved communication among staff members.

Results

A total of eleven staff members (n=11) attended the training session on Wednesday, October 3, 2018. The demographic profile of the attendees was 9 women and 2 men, a mix of direct care providers and supervisory staff at the psychiatric day program. They were of varying races and ethnicities. All of these attendees completed the T-TAQ questionnaire prior to the start of the training session. After an implementation period of seven weeks, these same attendees completed the T-TAQ questionnaire again. Quantitative analysis was done on the results of the pre-implementation and post-implementation surveys, resulting in the information provided in *Table 1*. These results are documented as percentage of responses in the categories of *Strongly Disagree*, *Disagree*, *Neutral*, *Agree*, and *Strongly Agree*. The *Strongly Disagree* category is the most negative response, and responses are more positive as they move toward the most positive category of *Strongly Agree*. The percentages of *Strongly Disagree* (pre=6%, post=5%), *Disagree* (pre=10%, post=6%), and *Neutral* (pre=14%, post=11%) answers were similar between the pre-implementation and post-implementation questionnaire results. The pre-implementation questionnaires had similar percentages for *Agree* (32%) and *Strongly Agree* (37%) answers, in contrast to post-implementation questionnaires where there was a decrease in the percentage of *Agree* (17%) answers, but a significant increase in the percentage of *Strongly Agree* (61%) responses, in all of the five categories of Team Structure, Leadership, Situation Monitoring, Mutual Support, and Communication. When looking at the percentage changes pre- and post-implementation for the five individual categories, the post-implementation percentages for

Commented [M1]: I wish I had this demographic information, and the fact that I don't have it is part of my learning process. In retrospect, I should have had them sign in and give their job title, or something to help gather demographics. My communications with the target agency were difficult. In order to get the post-implementation T-TAQs to them I had to stand in their lobby for almost an hour until someone was available to take them from me, because they were not responding to my emails or phone calls.

Strongly Agree were consistently high for Team Structure (72%), Leadership (66%), Situation Monitoring (71%), and Communication (60%). The post-implementation percentage for *Strongly Agree* was much lower for the category of Mutual Support (33%), although this was a 13% increase over the pre-implementation percentage. *Figure 1* and *Figure 2* provide a comparison of the overall percentage of answers in each category for pre and post-implementation. As for implementation of the "I PASS THE BATON" mnemonic during shift change reports, this continues to be a work in progress. The site representatives report that some staff members have begun using this mnemonic, and management continues to encourage the use of this tool during shift report.

Discussion

This quality improvement project provides initial support for the implementation of TeamSTEPPS 2.0 training to improve communication and staff attitudes toward teamwork at a psychiatric day program. As found in the literature, staff attitudes toward teamwork improved post-implementation. Overall, the staff members attending the training session were receptive to the training and implementation of the information learned. An area of concern is the low total percentage of *Strongly Agree* responses in the category of Mutual Support. This indicates a need for providing additional attention to addressing and improving the culture of mutual support within this agency. As found in the literature, TeamSTEPPS 2.0 provides a "top down" approach to training, which would be effective in addressing and improving this team's attitudes toward mutual support.

TeamSTEPPS 2.0 is a good fit for this agency's psychiatric day program staff, but there will need to be a strong commitment made by the agency's management to continue training on the remaining principals of Team Structure and Mutual Support, as well as periodic refresher

training on the principals already taught. This agency will need to incorporate TeamSTEPPS 2.0 training in their new hire orientation and competencies. Traditionally, TeamSTEPPS 2.0 has been successfully implemented in a variety of healthcare settings, but this small sample size does not support generalizable of this QI project to other agencies and healthcare settings. A larger sample size would be necessary to support generalizability.

An identified barrier was with communication between this writer and the clinical site representatives. There were three site visits and numerous emails and phone calls made prior to and during the implementation period. Management changes and the Thanksgiving holiday compounded this issue. Another identified barrier was the reluctance to change among staff members, which is often the case in organizations. These barriers could be avoided in the future by having a staff member work directly with the DNP student to do the TeamSTEPPS 2.0 training. Having a staff member that is well known and respected by the team, and works on-site daily with the team, would allow for better monitoring of practice changes and encouragement of staff buy-in. It would also provide valuable collateral information based on observations of the new skills in action, which could be used to support the results of the T-TAQ questionnaires. In the future it would also be helpful to make staff aware well in advance of the upcoming QI project and training, with frequent enthusiastic reminders, so they have time to adjust to the idea of making practice changes long before the training and implementation.

Limitations for this project include the small sample size, which makes it difficult to generalize the results to other healthcare settings. There is also the factor of using the T-TAQ questionnaire for collecting pre- and post-implementation data. Questionnaires provide subjective data based on the perceptions and attitudes of individual study subjects and it cannot be guaranteed that each participant took the time necessary to consider each question before

marking their answer. If they were in a hurry or distracted while they were completing the questionnaire, the answers they chose may not accurately reflect their opinions.

Despite these limitations, there were several strengths for this project. TeamSTEPPS 2.0 was successfully implemented within this non-traditional setting of a psychiatric day program. The T-TAQ comparison provided statistical evidence for improved staff attitudes toward Team Structure, Leadership, Situation Monitoring, Communication, and even the lowest scoring category of Mutual Support. It can be expected that future training with more staff members will yield similar results at this target agency. Staff members at this agency are dedicated to providing the best care for their clients, which results in their willingness to learn and practice safe, reliable, and effective care techniques.

Conclusion

TeamSTEPPS 2.0 training has contributed to improved communication and attitudes toward teamwork at this psychiatric day program in Baltimore City. Staff attitudes toward teamwork improved in all five key principals of Team Structure, Communication, Leadership, Situation Monitoring, and Mutual Support. There is a significant amount of research literature available with results supporting the implementation of TeamSTEPPS in a variety of healthcare settings. It is recommended that this agency continue to train new staff and conduct annual refresher trainings for current staff on TeamSTEPPS 2.0. Continued use of TeamSTEPPS training models may provide continued improvement in communication and teamwork attitudes among staff at this agency, supporting evidence that links teamwork and communication with better patient outcomes. Maintaining this structured program will standardize patient care and the report-giving process, reduce autonomy, and help this agency to continue providing evidence-based best care.

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Tables and Figures

Table 1: TeamSTEPPS 2.0 Teamwork Attitudes Questionnaire (T-TAQ) Results for Pre and Post-training. (Refer to the attached copy of the T-TAQ Questionnaire for the questions contained in each category.)

	Pre-training (n=11)					**Post-training (n=11)**				
	SD	**D**	**N**	**A**	**SA**	**SD**	**D**	**N**	**A**	**SA**
Team Structure	0	4%	12%	42%	34%	1%	1%	3%	21%	72%
Leadership	0	4%	13%	27%	57%	1%	1%	12%	18%	66%
Situation Monitoring	4%	3%	15%	28%	48%	0	1%	18%	9%	71%
Mutual Support	19%	28%	19%	12%	19%	22%	19%	10%	15%	33%
Communication	6%	12%	10%	48%	22%	3%	6%	10%	19%	60%

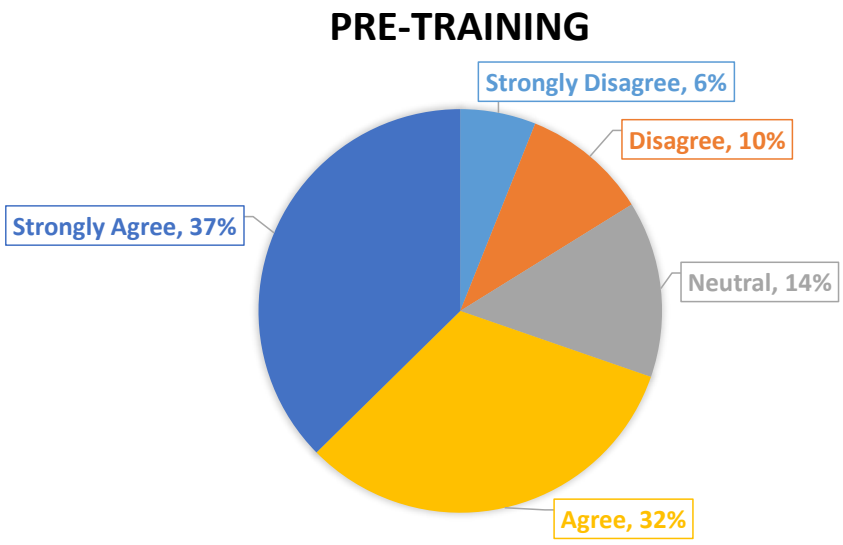

Figure 1. Cumulative pre-training results of the T-TAQ questionnaire for each answer category.

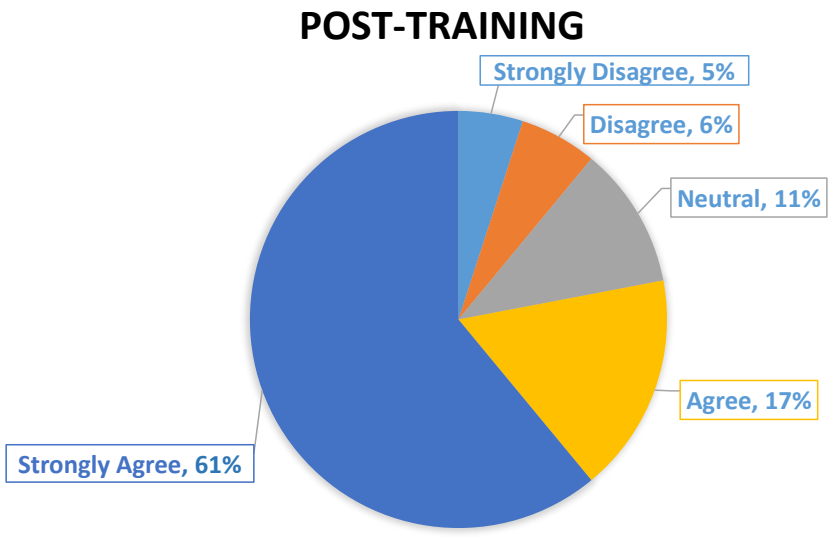

Figure 2. Cumulative post-training results of the T-TAQ questionnaire for each answer category.

Appendix A

Evidence Review Table (Revised 3/16/18)

Author, Year	**Study objective/intervention or exposures compared**	**Design**	**Sample (N)**	**Outcomes Studied (how measured)**	**Results**	**Level and Quality Rating**
Stead, Kumar, Schultz, Tiver, Pirone, Adams, & Wareham, 2009	To evaluate the effectiveness of the implementation of TeamSTEPPS at an Australian mental health facility.	Uncontrolled before- and –after study design.	N= 226	Program evaluation by participating staff, observation of team behaviors by non-team observers, surveys of staff attitudes and behaviors, and seclusion rates.	Improvement was seen in a reduction of seclusion rates post implementation. Staff satisfaction increased due to staff members feeling like their managers were focused more on supporting them with their individual needs and training needs	6 B
Mahoney, Ellis, Garland, Palyo, & Greene, 2012	To describe the implementation of TeamSTEPPS throughout a psychiatric hospital and to describe the differences in team attributes pre and post implementation.	Quality improvement project; pre-post survey design.	N= 284	Utilized the Team Assessment Questionnaire (TAQ), Likert-type scale, unique to the TeamSTEPPS training – given pre and post training. Team attribute differences pre/post training determined through *t* test with significance set at .01.	Found that TeamSTEPPS training teaches high-reliability behaviors that improve team performance and patient safety/quality of care.	6 A

Wong, Gang, Szyld, & Mahoney, 2016	To determine if implementation of the TeamSTEPPS program results in changes in attitudes toward team training, and improved safety climate changes with an emergency department.	Survey-based observational study	N=103	T-TAQ questionnaire; HSOPS survey; statistical analysis of data.	Successful improvement of staff teamwork attitudes, improved teamwork and communication, improved patient safety outcomes and parameters.	6 B
Natafgi, Baloh, Vellinga, Vaughy, & Ward, 2016	To determine what practices have been deployed by critical access hospitals in implementing handoff, and how these implementation attributes relate to handoff performance.	Qualitative study utilizing semi structured interviews and observations of handoff process.	22 hospitals	Numerical scoring system for handoffs and coding system for written responses.	Successful handoffs depended on staff involvement in the "big picture", standardized handoff templates, and leadership support.	6 B
Howe, 2014	To explore the impact of a CAN-led interdisciplinary teamwork and communication intervention on perceived quality of work environment and six-month retention.	Single group mixed quantitative and qualitative study with a pre-post-program.	N= 15	Focus group results, paired t-test, pre/post-tests, Cohen d.	Overall positive response from staff, improved communication among all staff, better teamwork among all. Improved confidence among CNAs toward voicing their concerns. Improved autonomy and self-efficacy for CNAs.	3 A
Vertino, 2014	To determine if a customized TeamSTEPPS training initiative would result in improved attitudes toward teamwork among nursing staff on an inpatient hospital unit.	Pre-experimental pretest/posttest repeated-measures.	N= 18	T-TAQ scores, ANCOVA, descriptive statistics.	Improved attitudes toward teamwork by staff, and improved teamwork on the units.	3 A

Baker, Day, Salas, 2006	To explain how teamwork is an essential component of achieving high reliability in health care organizations, describe fundamental characteristics of teams, review strategies in team training, and identify specific challenges to improving teamwork and enhancing reliability.	Systematic review	N/A	Research literature review and compilation of findings	Teamwork is essential to achieving high reliability for health care organizations. These principals must be integrated into the practice of health care and training of health professionals.	1 A
Buljac-Samardzic, Maartina; Dekker-van Doorn, Connie; van Wijngaarden, Jeroen; van Wijk, Kees, 2010	To review the literature on interventions to improve team effectiveness. To identify the evidence-based levels of this literature.	Systematic Review	N= 48	Literature reviews and evidence-based ratings applied.	There is little high quality evidence available about the effectiveness of the reviewed interventions. Team training does have positive effects for multidisciplinary teams in particular.	1 B
Lemieux-Charles, McGuire, 2016	To synthesize how teams and effectiveness are conceptualized in the health care team effectiveness literature, synthesize research findings about the relationship between the use of health care teams and organizational and patient outcomes, and to appraise the existing research and provide recommendations for application.	Systematic Review	N= 33	Literature reviews and appraisals of existing research based on the Integrated Health Care Team Effectiveness Model.	Overall, published studies do not show clear direction on how to create or maintain high-functioning teams. It is necessary to tailor models to particular team types and work processes. One size does not fit all.	1 C

Salas, Diaz-Granados, Klein, burke, Stagl, Goodwin, Halpin, 2008	To conduct a meta-analyses to gauge the effectiveness and boundary conditions of team training interventions for enhancing team outcomes.	Meta-analysis	N= 45	Meta-analysis of 45 published works relating to team training interventions and team functioning. Statistical analyses of the outcomes used to determine the effectiveness of each type of training.	Team training interventions are a viable approach for organizations to enhance team outcomes. These interventions are useful for improving cognitive outcomes, affective outcomes, teamwork processes, and performance outcomes.	1 A

Appendix B

Teamwork Attitudes Questionnaire (T-TAQ)

TeamSTEPPS® Instructor Manual

Instructions: Please respond to the questions below by placing a check mark (√) in the box that corresponds to your level of agreement from *Strongly Agree* to *Strongly Disagree*. Please select only one response for each question.

Team Structure	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. It is important to ask patients and their families for feedback regarding patient care.					
2. Patients are a critical component of the care team.					
3. This facility's administration influences the success of direct care teams.					
4. A team's mission is of greater value than the goals of individual team members.					

5. Effective team members can anticipate the needs of other team members.					
6. High performing teams in health care share common characteristics with high performing teams in other industries.					
Leadership	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
7. It is important for leaders to share information with team members.					
8. Leaders should create informal opportunities for team members to share information.					
9. Effective leaders view honest mistakes as meaningful learning opportunities.					
10. It is a leader's responsibility to model appropriate team behavior.					

11. It is important for leaders to take time to discuss with their team members plans for each patient.					
12. Team leaders should ensure that team members help each other out when necessary.					
Situation Monitoring	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
13. Individuals can be taught how to scan the environment for important situational cues.					
14. Monitoring patients provides an important contribution to effective team performance.					
15. Even individuals who are not part of the direct care team should be encouraged to scan for and report changes in patient status.					

16. It is important to monitor the emotional and physical status of other team members.					
17. It is appropriate for one team member to offer assistance to another who may be too tired or stressed to perform a task.					
18. Team members who monitor their emotional and physical status on the job are more effective.					
Mutual Support	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
19. To be effective, team members should understand the work of their fellow team members.					
20. Asking for assistance from a team member is a sign that an individual does not know how to do his/her job effectively.					
21. Providing assistance to team members is a sign that					

an individual does not have enough work to do.					
22. Offering to help a fellow team member with his/her individual work tasks is an effective tool for improving team performance.					
23. It is appropriate to continue to assert a patient safety concern until you are certain that it has been heard.					
24. Personal conflicts between team members do not affect patient safety.					
Communication	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
25. Teams that do not communicate effectively significantly increase their risk of committing errors.					
26. Poor communication is the most common cause of reported errors.					

27. Adverse events may be reduced by maintaining an information exchange with patients and their families.					
28. I prefer to work with team members who ask questions about information I provide.					
29. It is important to have a standardized method for sharing information when handing off patients.					
30. It is nearly impossible to train individuals how to be better communicators.					

Please provide any additional comments in the space below.

Thank you for your participation!

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http://www.ahrq.gov/teamstepps/instructor/reference/teamattitude.html