

Improving Teamwork and Communication for Child Psychiatric Staff

by

Ciara M. Smith

Under Supervision of

Gina C. Rowe, PhD, DNP, MPH, FNP-BC, PHCNS-BC, CNE

Second Reader

Deborah Ariosto, PhD, MSN, RN-BC, FAMIA

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Abstract

Problem & Purpose: There is a critical need for mental health staff to work well as a team, particularly with the increase in high acuity behavioral health patients and shortage of experienced psychiatric nurses in recent years. Staff members on an inpatient pediatric psychiatric unit have recognized elements that underpin effective teams and include efficient, effective communication, transparency and trust. Leadership on the unit have identified team communications skills as an area of opportunity to improve the staff's perception of teamwork. The purpose of this quality improvement (QI) project is to establish a baseline measure of teamwork, equip staff with evidence-based teamwork tools based on TeamSTEPPS 2.0: Strategies and Tools to Enhance Performance and Patient Outcomes (TeamSTEPPS), evaluate success of the tools, and make recommendations for improvement.

Methods: Thirty-four inpatient child psychiatric nurses and mental health technicians received education on strategies from the Mutual Support and Situational Monitoring modules of the TeamSTEPPS® 2.0 fundamental curriculum, such as *C-U-S*, *DESC Script*, and *cross monitoring*. These strategies helped improve the process of communication during therapeutic groups by improving staff's interactions. Staff used the TeamSTEPPS strategies to communicate when they needed support and to actively seek out opportunities to help their team members. Charge nurses audited staff members' communication patterns during an evening therapeutic group twice a week to assess the team's ability to use the new TeamSTEPPS strategies.

Results: Data from the domains of Mutual Support and Situation Monitoring of the Teamwork Perceptions Questionnaire (T-TPQ) were collected at baseline and post-implementation. Staff's perception of Situation Monitoring increased significantly ($p=0.01$). Staff's perception of Mutual Support increased; however, this increase was not significant ($p=0.11$). Although staff did not consistently meet the targeted goal of "Good" (4), the run charts of both outcomes revealed a positive trend, and staff met the goal 32% of the time during the implementation period.

Conclusions: TeamSTEPPS offers a standardized approach to teach mental health providers how to support each other during therapeutic groups. Future studies should focus on reinforcement strategies and the long-term relationship between TeamSTEPPS implementation and rates of workplace violence.

Introduction

Within the field of nursing, effective communication is a key component in providing the best care. In addition to patient care, nurses serve as a liaison between the patient and the interdisciplinary healthcare team. In this effort, nurses advocate for the patient and relay information between all parties. Furthermore, psychiatric nurses need effective communication skills because communication is the basis of building therapeutic rapport with their patients (Kourkouta & Papathanasiou, 2014; Wheeler, 2014). Kanerva, Kivinen, & Lammintakanen (2015) found that inadequate communication between healthcare providers can result in patient safety errors on psychiatric units. Lack of engagement from the nurses in the milieu can lead to missed windows of opportunity to intervene before escalation occurs (Spencer, Johnson, & Smith, 2018). Kanerva et al., (2015) found that with effective communication, nurses can identify patient safety concerns more readily. At least 75% of psychiatric nurses have been assaulted by a patient over the course of their career (Iozzino, Ferrari, Large, Nielssen, & de Girolamo, 2015). Additionally, poor communication has a negative impact on teamwork, which can lead to decreased job satisfaction, staff fatigue, and increased workplace injuries (Rosen et al., 2015). Staff training on teamwork can improve job satisfaction and work engagement (Ogbonnaya, Tillman, & Gonzalez, 2018).

With the increase in high acuity behavioral health patients and a shortage of experienced psychiatric nurses, there is a critical need for staff to work well as a team. Staff members on an inpatient pediatric psychiatric unit have recognized elements that underpin effective teams, which include efficient, effective communication, transparency, and trust. Leadership on the unit has identified team communications skills as an area of opportunity to improve the staff's perception of teamwork (K. Sadtler, personal communication, February 2019). The purpose of

this quality improvement (QI) project was to establish a baseline measure of teamwork, equip staff with evidence-based teamwork tools based on TeamSTEPPS® 2.0: Strategies and Tools to Enhance Performance and Patient Outcomes (TeamSTEPPS), evaluate success of the tools, and make recommendations for improvement.

Literature Review

According to the Agency for Healthcare Research and Quality (AHRQ), “TeamSTEPPS is an evidence-based set of teamwork tools, aimed at optimizing patient outcomes by improving communication and teamwork skills among health care professionals” (n.d.a.) (See Appendix A). The five principles include Leadership, Team Structure, Situation Monitoring, Mutual Support, and Communication. This literature review focuses on six quasi-experimental studies, the majority of which had a quality rating of B (See Table 1). To further analyze this review, the evidence was categorized into three themes: 1) why TeamSTEPPS is appropriate for the hospital setting, 2) the effectiveness of TeamSTEPPS, and 3) different methods of implementing TeamSTEPPS.

Each unit within a healthcare organization defines its own team, which can include one profession or multiple professions. In examining the studies included in this review, Clapper et al. (2018) had the most diverse interprofessional team, consisting of nurses, physicians, pharmacists, respiratory therapists, unit clerk, and environment workers. While Vertino (2016) only had a team consisting of staff within the nursing profession. Specific members of the team did not appear to have an impact on the results. To help provide a safe environment for students to learn about effective communication and teamwork skills before entering the field, Sweigart et al. (2016) implemented TeamSTEPPS among interprofessional students. Other studies examined the impact of TeamSTEPPS on communication and teamwork between nurses and physicians

including residents, nurse practitioners, and physicians' assistants (Lisbon et al., 2016; Obenrader et al., 2019; Wong, 2016). Three of these studies took place in an emergency department (Lisbon et al., 2016; Obenrader et al., 2019; Wong, 2016). The studies by Clapper et al. (2018) and Vertino (2016) both took place on an inpatient unit.

All the studies reviewed found that TeamSTEPPS improved teamwork. The majority of the studies found that communication improved (Clapper et al., 2018; Lisbon et al., 2016; Obenrader, Broome, Yap, & Jamison, 2019; Sweigart et al., 2016; Vertino, 2016). However, Wong (2016) reported that there was not a significant increase in communication. One major limitation of Wong's study (2016) was that a natural disaster occurred shortly after the TeamSTEPPS' training, and the breakdown in communication may have been due to management of the outcome of the disaster. Obenrader et al. (2019) examined communication and teamwork using three different scales and found a significant increase in both communication and teamwork. Lisbon et al. (2016) was the only study that measured sustainability, finding that knowledge of TeamSTEPPS and effective communication attitudes were sustained after 45 days. According to Vertino (2016), the subjects' attitudes of teamwork were not affected by position or years of experience; however, the turnover of staff and the hiring of new nurses may have affected the results. Interprofessional students displayed a significant increase in all the TeamSTEPPS's principles, except team structure (Sweigart et al., 2016). Clapper et al. (2018) found that teamwork can vary according to the shift; the day shift staff were observed using more of the TeamSTEPPS strategies than the night shift.

The implementation of TeamSTEPPS can occur in using a variety of methods. The AHRQ offers three training curricula: Train-the-Trainer, TeamSTEPPS Fundamentals, and TeamSTEPPS Essentials (AHRQ, n.d.b.). The authors of the studies reviewed chose to carry out

the intervention based on the modules from the TeamSTEPPS Fundamentals curriculum, but in different ways to fit the needs of the unit and their identified problem. Clapper et al. (2018) provided TeamSTEPPS education to all the interprofessional healthcare students; however, only a limited proportion of subjects completed the simulation, which was composed of one simulation group for day shift and one for night shift. Wong (2016) used simulation, along with structured debriefing, to assess the subjects' thought processes and to offer feedback. Sweigart et al. (2016) was the only study to implement TeamSTEPPS virtually, recognizing that virtual learning environments can be more practical than onsite training, due to conflicting schedules. The most common approach involved didactic sessions. Another approach was to teach TeamSTEPPS through training individuals to be TeamSTEPPS masters. The final three studies, Lisbon et al. (2016), Obenrader et al. (2019), and Vertino (2016), all used TeamSTEPPS masters to aid in the training of the subjects. Regardless of individual method chosen, all of the studies found that TeamSTEPPS improved teamwork skills.

Theoretical Framework

This quality improvement project used Benner's "Novice to Expert" theory as the guiding theoretical framework. The purpose of the theory is to explain the stages of professional development that nurses progress through (Butts & Rich, 2015). There are five stages of the theory: novice, advanced beginner, competent, proficient, and expert (Benner, 1984). Novice nurses (who are new graduates or are new to a specialty) have less refined experience or clinical judgment skills. Nurses in the expert stage are comprehensively familiar with relevant guidelines and rules but do not rely solely on these to understand why they picked the proper intervention to apply to individual patient situations (Benner, 1984).

The nurses on the child inpatient psychiatric unit displayed the same characteristics as outlined in Benner's Novice to Expert theory. Based on these descriptions, the newer nurses on the unit, who are novices, were having more difficulty with communication and teamwork due to their lack of experience and clinical judgement. Overall, the more experienced nurses had good clinical judgement skills, but they expressed a desire to improve teamwork skills. Since they were not familiar with these skills, they would be categorized in a lower stage for these skills, such as novice or advanced beginner. This theory was used to help guide inexperienced nurses and experienced nurses who were not familiar with healthy communication strategies to grow professionally by increasing their ability to work as a team and communicate effectively through the help of an expert nurse who was trained in TeamSTEPPS.

Methods

The inpatient child psychiatric unit of an urban academic magnet hospital offers crisis intervention and stabilization for children between the ages of five through twelve, diagnosed with mental illnesses such as autism, depression, disruptive mood dysregulation, ADHD, and anxiety. On average, the unit treats about 500 children annually. To provide the best treatment, the unit's interdisciplinary team consists of an attending physician, fellows, senior clinical nurses, nurses, mental health technicians, occupational therapists, social workers, and a school educator. For this project, nurses and mental health technicians who had completed orientation were eligible to take part in the project, which included 15 registered nurses and 19 mental health technicians. Staff who had not completed their orientation were excluded. Senior clinical nurses were excluded because they were considered to be expert nurses who served as educational resources and spent the majority of their shift in management roles.

Staff members received 45 minutes of TeamSTEPPS education based on the TeamSTEPPS Fundamentals curriculum (Appendix B). The introduction covered the background and significance of TeamSTEPPS. Mutual Support covered how to use assertive language to address safety concerns through using the strategy C-U-S and include how to resolve conflict using D-E-S-C Script (Appendix C). Situation Monitoring covered how to use cross monitoring as a strategy to increase situational awareness and support among team members (Appendix C).

Before the implementation period, two change champions completed the TeamSTEPPS training and served as TeamSTEPPS masters and staff completed the baseline perceptions survey. During the first two weeks, the staff attended the TeamSTEPPS education training and were able to successfully demonstrate the strategies. During the implementation period, charge nurses audited an evening therapeutic group, at least twice a week, to assess if staff members were using the strategies. During week five, the change champion held multiple meetings to address any concerns or suggestions that the staff members may have to reduce barriers and improve compliance. Based on the feedback, the project leader adjusted the implementation process. During week eight, the staff attended a sustainability competence fair to informally get re-educated and tested on the strategies and speak openly to the change champion without the presence of leadership. Additionally, the change champion presented feedback from the audit tool and gave staff an overall suggestion on how to improve. During week nine, the staff members received TeamSTEPPS strategies badge reminders and the change champion posted flyers of the TeamSTEPPS strategies on the unit to remind the staff members to use them during therapeutic groups. At the end of the 12 weeks, staff completed the post-survey.

Baseline data and post-implementation data were collected using the domains of Mutual Support and Situation Monitoring from the valid and reliable, self-report Teamwork Perceptions Questionnaire (T-TPQ) scale (Appendix D). The Cronbach's Alpha has been reported for Mutual Support as .90 and for Situation Monitoring as .91 (American Institutes for Research, 2010). The results were analyzed using a paired t-test to determine if there was a significant difference in staff's perception of Mutual Support and Situation Monitoring from baseline to post-implementation. The average score for each domain (Mutual Support and Situation Monitoring) on the T-TPQ from the baseline scores to post-implementation scores was compared to see if there was an improvement in the average score obtained over time. Charge nurses audited staff during an evening therapeutic group, twice a week, to assess the team's ability in utilizing the TeamSTEPPS strategies using the Team Performance Observation Tool (Appendix E). The data were evaluated using a run chart to track improvements in the staff's usage of the TeamSTEPPS strategies.

Results

During the first two weeks, 100% of the staff received TeamSTEPPS education. The baseline survey was completed by 97% of the staff. However, only 88% of the staff followed through for the entire 12 weeks of the implementation period. TeamSTEPPS was able to increase the staff's perception of Situation Monitoring and Mutual Support (See Figure 1 and Figure 2). The average score of staff's perceived Situation Monitoring significantly increased from 3.34 to 3.66 ($p=0.0098$) and the average score of staff's perceived Mutual Support increased from 3.37 to 3.52 ($p=0.11$). Based on the averages from the post-survey, Question 25 "*Feedback between staff is delivered in a way that promotes positive interactions and future change*" (positive feedback) and Question 28 "*Staff resolve their conflicts, even*

when the conflicts have become personal” (conflict resolution) continued to be a challenge for the staff, as these scores were unchanged from “*Disagree*” (See Figure 2).

Staff were able to use strategies from Mutual Support and Situation Monitoring. Based on the run chart for both outcomes, staff perceptions improved overall but did not consistently meet the goal of an average score of “4” out of 5 on the Team Performance Observation Tool (32%) (See Figure 3 and Figure 4). The median for Situation Monitoring was 3.4, while the median for Mutual Support was 3. Both trends dropped in the second week and did not increase until week four. For the remainder of the implementation period, the overall trend was positive.

When translating evidence into practice, early identification of barriers was essential. This allows the project leader to identify facilitators to minimize the barrier and more successfully implement the change. Gaining buy-in from the staff was difficult because leadership tried to introduce TeamSTEPPS to the unit several years ago; however, they never fully implemented it, and some staff remember these efforts. Also, the AHRQ publicizes TeamSTEPPS as an intervention for medical settings. Therefore, some staff did not believe the strategies would be beneficial. In addition, the high stress environment and the unpredictable nature of the patient population may lead to a high turnover rate of staff and, subsequently, increased difficulty in staff engagement of the techniques. Holding staff meetings was the most effective strategy in overcoming these barriers. The team needed the opportunity to share their concerns, such as venting about the workload, difficult patients, and talking about their uncertainty about the intervention. Aside from staff concerns about the efficacy of TeamSTEPPS, staff also had a hard time remembering the strategies. To combat this barrier, the project leader reinforced staff learning of the strategies with fun TeamSTEPPS games, positive

praise, and other incentives throughout the implementation period. Using the facilitators as a resource also facilitated implementation of this QI project.

Discussion

Progress from this QI project represents steps in the right direction in terms of meeting unit goals of improving overall nursing staff communication and teamwork. Situation Monitoring significantly increased, meaning that staff were able to increase their ability to be aware of when their peers needed support. By having this awareness, staff can adjust to each other's needs as they occur. Based on the improvement from *“Disagree”* to *“Neutral”* on Question 15 *“Staff effectively anticipate each other's needs”* and Question 21 *“Staff correct each other's mistakes to ensure that procedures are followed properly”* on the post-survey, it was evident that the staff truly grasped the concept of situational awareness because they felt that their peers were able to anticipate their needs and correct each other when mistakes were made. However, the staff's perception of Mutual Support did not significantly improve, meaning that the sample size was too small to reflect that they had the ability to collaborate. As stated above, the staff's perception of positive feedback and conflict resolution did not change from *“Disagree”*, which may have prevented the team from communicating more effectively and reducing their situational awareness. Future strategies to improve perceptions of Mutual Support could include reinforcing the content in the TeamSTEPPS module used as well as incorporating content from other TeamSTEPPS modules such as Team Structure, Communication, and Leadership.

Many other factors also may have impacted the results. Based on the feedback from staff, the sudden increase in the census at the beginning of the implementation period and the acuity of the patients appeared to have negatively affected how well the team could work together. Newer

staff members voiced difficulty remembering the strategies because they viewed patient safety as a higher priority. Also, there were periods of time when there were several patients on one-to-one observation (staff needs to be within arm length distance of the patient) or close observation (staff needs to keep their eyes on the patient at all times), which made it impossible for that assigned staff member to support other staff and patients. Another important factor that may have influenced the outcome was the level of experience of the staff with the population. For example, on some of the shifts, all staff were experienced, while on other shifts, all staff on the shift were newer staff. Connecting Benner's "Novice to Expert Theory" to the outcomes, experienced staff should have the ability to be aware of what was going on the unit and be able to provide support to their team members, which was similar to the feedback staff gave in this study. However, they pointed out that some experienced nurses chose not to use their skills. Performing the audit tool daily, tracking the acuity level of the milieu and the level of staff experience would have been a more beneficial way to get a more accurate assessment of the outcomes.

Since one of the goals of this project was to evaluate the success of the TeamSTEPPS strategies, the project leader used a different evaluation tool than the articles in the literature review. The majority of the articles measured staff's attitude towards the TeamSTEPPS principles, while this project measured staff's perceptions of the TeamSTEPPS principles, which effectively measures the success of implementation. However, both evaluations are validated tools used within TeamSTEPPS to assess teamwork. Only Situation Monitoring significantly increased in this project. However, both principles, Situation Monitoring and Mutual Support, significantly increased in previous studies examined in the literature (Obenrader et al., 2019; Sweigart et al., 2016; Vertino, 2014; Wong, 2016). Although the project leader declined to

formally assess staff's knowledge of TeamSTEPPS, staff reported that they remembered the TeamSTEPPS strategies by the end of the implementation period, which was consistent with results founded by Clapper et al. (2018) and Lisbon et al. (2016). Questions focusing on positive feedback and conflict resolution remaining in "Disagree". This project did not specifically measure communication. In contrast, some published studies have found a significant increase in the outcome of communication (Lisbon et al., 2016; Obenrader et al., 2019).

To combat the limitations of this quality improvement project, the project leader used the strengths of the project to adjust for the limitations. The first limitation of this project was the quasi-experimental study design: there was not a control group. However, the individual staff's responses were analyzed using a paired t-test, which allowed the staff to serve as their own control. The second limitation of the project was a small sample size. Furthermore, four nurses did not complete the entire 12 weeks due to resignation (three participants) and injury (one participant). However, the nurses were able to complete the post-survey and there was a 100% completion rate of data collection. The third weakness was that several different nurses completed the audit tool and so individuals may have been influenced by their bias of the intervention, and by their team members' inter-relational conflict on that shift (inter-relator reliability). Despite this potential bias, the data collection tools were created by the AHRQ and were deemed valid and reliable, and nurse facilitators were appropriately trained on their use according to the TeamSTEPPS protocol. Overall, this project opens the door for psychiatric nurses to apply TeamSTEPPS to staff and team processes that need improvement. However, it might be difficult to apply these results to other nursing specialties, given the differences in staff and team workflow expectations in mental/behavioral health units compared to medical or

surgical units. In addition, staff workflows and milieu expectations may differ between pediatric and adult mental health units.

Conclusion

Effective teamwork and communication among staff are essential to psychiatric nursing, due to the unpredictable, dangerous environment and the high acuity of the patients. Lack of collaboration can lead to safety concerns. TeamSTEPPS offers a standardized approach to teach mental health providers how to support each other during therapeutic groups. The project leader and leadership discussed a plan to educate staff on TeamSTEPPS strategies, from Team Structure, Communication and Leadership, to ensure staff will have tools from each of the TeamSTEPPS principles. In addition, the unit leadership plans to begin educating new staff on the TeamSTEPPS strategies several times during the typical six-week orientation period, and to require all staff to complete an annual training on TeamSTEPPS.

TeamSTEPPS has already successfully improved processes within a variety of medical settings, including inpatient, outpatient, emergency departments, operating room, medical-surgical, and trauma units. Due to the lack of studies on TeamSTEPPS implementation on psychiatric units, this quality improvement project serves as initial evidence of potential benefits in introducing TeamSTEPPS to improve psychiatric processes within multiple psychiatric populations, including adolescent, adult, geriatric, substance use, and more. For example, TeamSTEPPS has the potential to change the process of how psychiatric nurses respond to psychiatric crises. Future studies should focus on the relationship between TeamSTEPPS and the rate of workplace violence based on communication and teamwork among staff.

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Table 1.

Evidence Review Table for TeamSTEPPS

Author, year	Study objective/intervention or exposures compared	Design	Sample (N)	Outcomes studied (how measured)	Results	Level and Quality Rating *
1) Clapper et al., 2018	To explore the effectiveness of a TeamSTEPPS saturation-in-training model on a pediatric medical unit.	Quasi-Experimental Pretest-Posttest	547 direct care personnel from inpatient pediatrics unit including nurses, physicians, pharmacists, respiratory therapists, unit clerk, and environment workers Day shift group Night shift group Convenience	TeamSTEPPS® Team Performance Observation Tool- team structure, leadership, mutual support, situation monitoring, and communication TeamSTEPPS Knowledge Test- TeamSTEPPS principles, attitudes, and behaviors	Both groups displayed a significant increase in TeamSTEPPS knowledge ($P < 0.001$) The day shift group showed greater improvements on the TeamSTEPPS Team Performance Observation Tool than the night shift group. The night shift group improved in leadership, mutual support, situation monitoring and communication.	3A
2) Lisbon et al., 2016	To determine the efficacy of the implementation TeamSTEPPS on communication.	Quasi-Experimental Pilot	113 members including physicians, resident physicians, and nursing and ancillary personnel from	TeamSTEPPS Knowledge Test- TeamSTEPPS principles, attitudes, and behaviors AHRQ attitudes survey (Section C)- Communication	There was a significant increase in TeamSTEPPS knowledge and communication attitudes at the posttest (45 days) and were maintained by day 90.	3B

Author, year	Study objective/intervention or exposures compared	Design	Sample (N)	Outcomes studied (how measured)	Results	Level and Quality Rating *
			the EDs of 4 academic medical centers			
3) Obenrader et al., 2019	To investigate the effects of TeamSTEPPS on communication and the team's perceptions of communication.	Quasi-Experimental Pretest- Posttest	57 members including nurses, nurse practitioners, physicians' assistants, and non-licensed individuals of ED Convenience	TeamSTEPPS Teamwork Perceptions Questionnaire (TTPQ)- individual's perceptions of group-level teamwork TeamSTEPPS Teamwork Attitudes Questionnaire (TTAQ)- individual attitudes as they relate to teamwork and care delivery Nursing Culture Assessment Tool (NCAT)- occupational subculture of nursing within an organization (behavior, teamwork, and communication) Communication	There was an increase in the team's attitudes and perceptions of communication and teamwork.	3B
4) Sweigart et al., 2016	To assess the impact of a Virtual TeamSTEPPS program for	Quasi-Experimental Pretest-Posttest	109 health professional students including nursing, medicine, occupational	TeamSTEPPS Teamwork Attitudes Questionnaire (TTAQ)- attitudes toward teamwork	There was a significant increase in leadership, mutual support, situation monitoring, and communication. There was not a	3B

Author, year	Study objective/intervention or exposures compared	Design	Sample (N)	Outcomes studied (how measured)	Results	Level and Quality Rating *
	interprofessional students.		therapy, and social work Convenience Voluntary response sample		significant change in team structure.	
5) Vertino, 2014	To evaluate the impact of TeamSTEPPS on staff's attitudes towards teamwork.	Quasi-Experimental Pretest-Posttest	26 registered nurses, licensed nurses and nursing assistants on an inpatient unit Convenience	TeamSTEPPS Teamwork Attitudes Questionnaire (TTAQ)- attitudes toward teamwork	There was a significant increase in the team's attitude towards teamwork (structure, leadership, mutual support, and situation monitoring, and communication) despite position and years of experience.	3B
6) Wong, 2016	To evaluate the effectiveness of TeamSTEPPS in an interprofessional education stimulation on the team's attitudes towards teamwork and communication.	Quasi-Experimental Survey based Pretest-Posttest	72 members including nurses and residents from the ED Convenience	TeamSTEPPS Teamwork Attitudes Questionnaire (TTAQ)- individual attitudes related to the core components of teamwork: team structure, leadership, mutual support, situation monitoring, and communication Hospital Survey on Patient Safety Culture (6 safety culture composites)- assess the culture of patient safety related to teamwork/ communication	There was a significant increase in team structure, leadership, mutual support, and situation monitoring. There was not a significant increase in communication (P=0.107). Only three out of the six safety culture composites (frequency of event reporting, teamwork within hospitals units, hospital handoffs and transitions) showed a significant increase.	3B

*Rating System for Hierarchy of Evidence on based Melnyk, B.M. & Fineout-Overholt, E. (2014). *Evidence-based practice in nursing & healthcare: A guide to best practice* (3rd ed.). New York: Lippincott, Williams & Wilkins.

Rating Scale for Quality of Evidence based on Newhouse, R.P. (2006). Examining the support for evidence-based nursing practice. *Journal of Nursing Administration*, 36(7-8), 337-40.

Rating System for Hierarchy of Evidence

<u>Level of the Evidence</u>	<u>Type of the Evidence</u>
I (1)	Evidence from systematic review, meta-analysis of randomized controlled trials (RCTs), or practice-guidelines based on systematic review of RCTs.
II (2)	Evidence obtained from well-designed RCT
III (3)	Evidence obtained from well-designed controlled trials without randomization
IV (4)	Evidence from well-designed case-control and cohort studies
V (5)	Evidence from systematic reviews of descriptive and qualitative studies
VI (6)	Evidence from a single descriptive or qualitative study
VII (7)	Evidence from the opinion of authorities and/or reports of expert committees

Melnyk, B.M. & Fineout-Overholt, E. (2014). *Evidence-based practice in nursing & healthcare: A guide to best practice* (3rd ed.). New York: Lippincott, Williams & Wilkins.

Rating Scale for Quality of Evidence

A: High – consistent results with sufficient sample, adequate control, and definitive conclusions; consistent recommendations based on extensive literature review that includes thoughtful reference to scientific literature

B: Good – reasonably consistent results; sufficient sample, some control, with fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence

C: Low/major flaw – Little evidence with inconsistent results; insufficient sample size; conclusions cannot be drawn

Newhouse, R.P. (2006). Examining the support for evidence-based nursing practice. *Journal of Nursing Administration*, 36(7-8), 337-40.

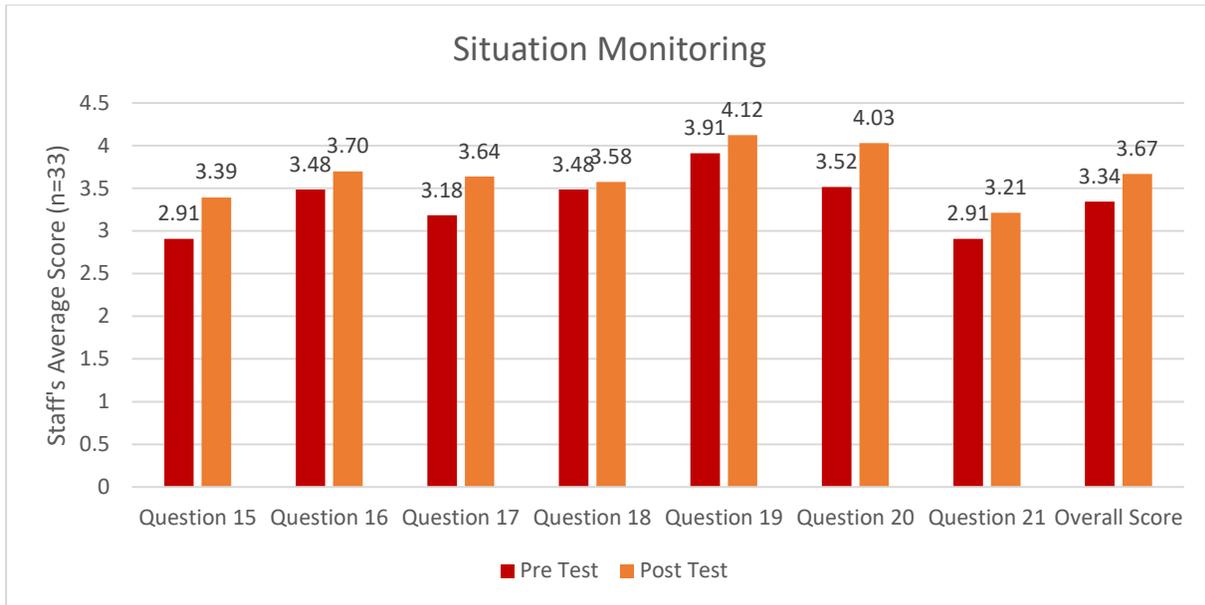


Figure 1. Comparison of staff's average score on each question from the Situation Monitoring domain of T-TPQ from the pre-test to post-test (1 = Strongly Disagree, 5 = Strongly Agree)

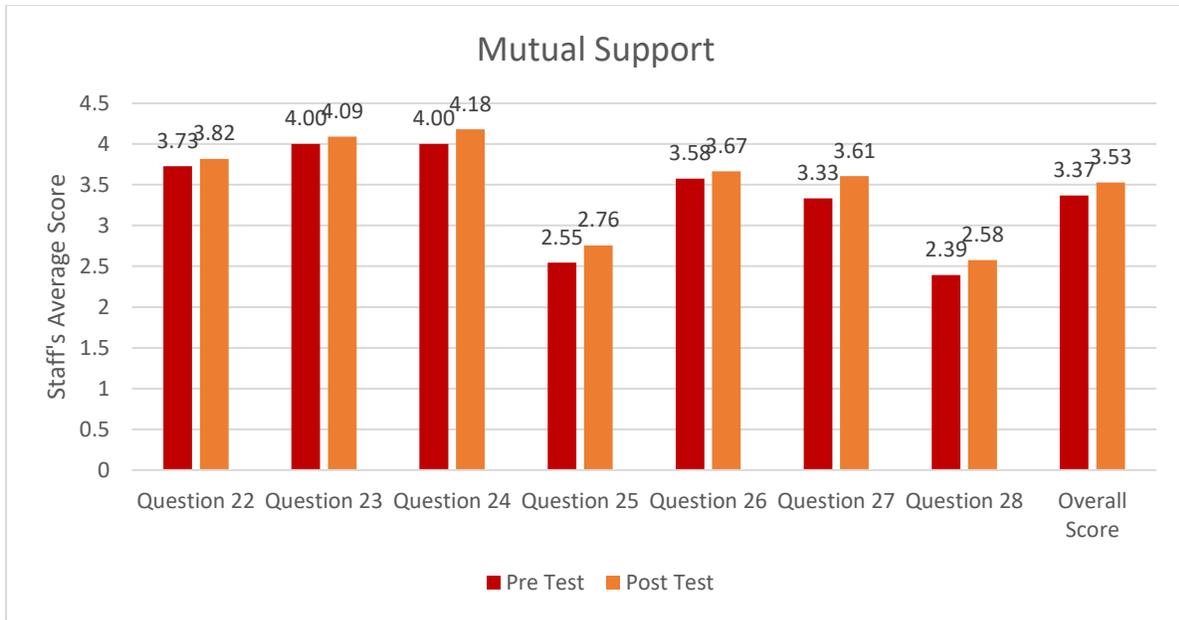


Figure 2. Comparison of staff's average score on each question from the Mutual Support domain of T-TPQ from the pre-test to post-test (1 = Strongly Disagree, 5 = Strongly Agree)

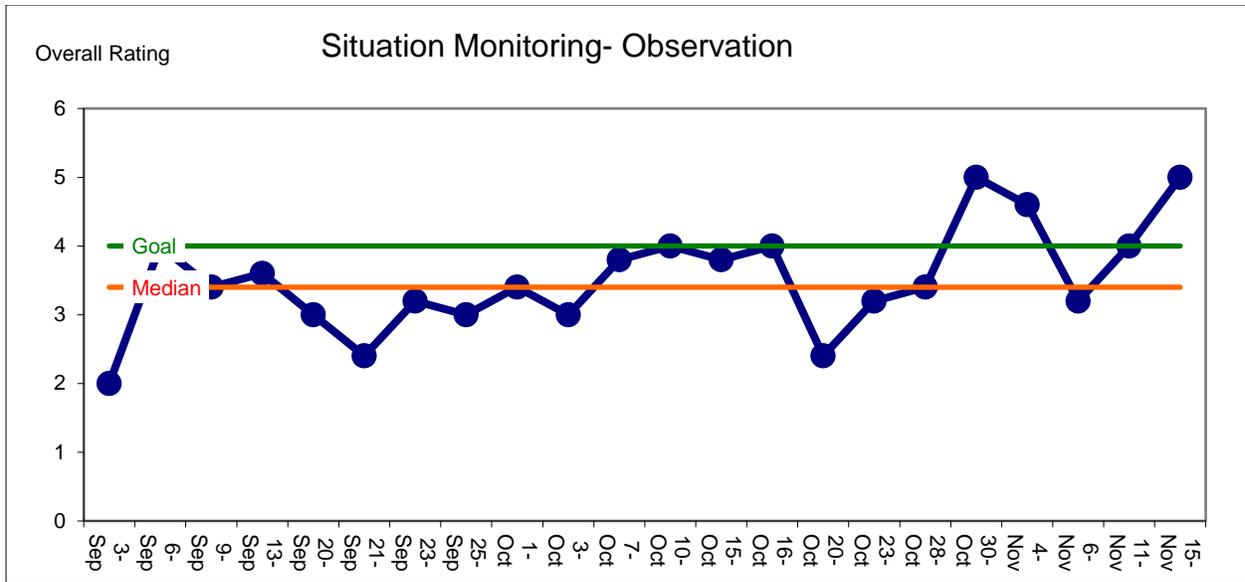


Figure 3. The team's rating score of their ability to use Situation Monitoring for that shift. (1 = Very Poor, 5 = Excellent)

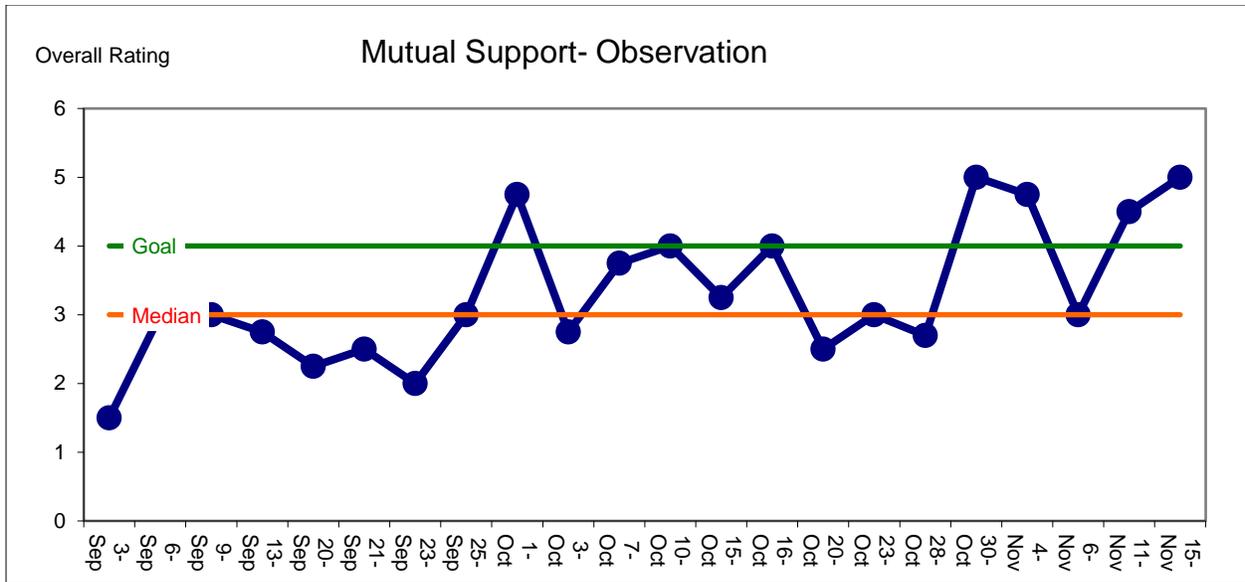


Figure 4. The team's rating score of their ability to use Mutual Support for that shift. (1 = Very Poor, 5 = Excellent)

Appendix A TeamSTEPPS

TeamSTEPPS® 2.0

Framework and Competencies

Team Competency Outcomes

Knowledge

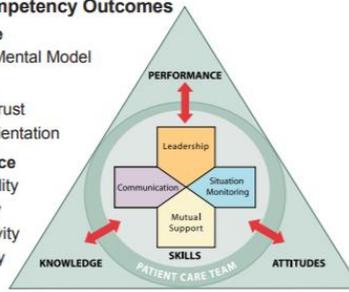
- Shared Mental Model

Attitudes

- Mutual Trust
- Team Orientation

Performance

- Adaptability
- Accuracy
- Productivity
- Efficiency
- Safety



TeamSTEPPS has five key principles. It is based on team structure and four teachable-learnable skills: Communication, Leadership, Situation Monitoring, and Mutual Support. The arrows depict a two-way dynamic interplay between the four skills and the team-related outcomes. Interaction between the outcomes and skills is the basis of a team striving to deliver safe, quality care and support quality improvement. Encircling the four skills is the team structure of the patient care team, which represents not only the patient and direct caregivers, but also those who play a supportive role within the health care delivery system.

...TeamSTEPPS is an evidence-based framework to optimize team performance across the health care delivery system.

Key Principles

Team Structure
Identification of the components of a multi-team system that must work together effectively to ensure patient safety
Communication
Structured process by which information is clearly and accurately exchanged among team members
Leadership
Ability to maximize the activities of team members by ensuring that team actions are understood, changes in information are shared, and team members have the necessary resources
Situation Monitoring
Process of actively scanning and assessing situational elements to gain information or understanding, or to maintain awareness to support team functioning
Mutual Support
Ability to anticipate and support team members' needs through accurate knowledge about their responsibilities and workload

Appendix B

Lesson Plan

Learning Objectives	Content Outline	Method of Instruction	Time Spent	Method of Evaluation
<p>Recognize the basics of communication</p> <p>Identify barriers to effective communication and teamwork</p> <p>Understand the importance of TeamSTEPPS</p>	<p>Introduction</p> <ul style="list-style-type: none"> • Team characteristics • Communication errors • What is TeamSTEPPS • Significance of TeamSTEPPS 	PowerPoint	7.5 min	Discussion
<p>Recognize the basics of Mutual Support</p> <p>Describe how to use Mutual Support strategies</p>	<p>Mutual Support</p> <ul style="list-style-type: none"> • Definition of Mutual Support • Mutual Support strategies • Examples of Mutual Support strategies 	PowerPoint	15 min	<p>Discussion</p> <p>Demonstration</p>
<p>Recognize the basics of Situation Monitoring</p> <p>Describe how to use Situation Monitoring strategies</p>	<p>Situational Monitoring</p> <ul style="list-style-type: none"> • Definition of Situation Monitoring • Situation Monitoring strategies • Examples of Situation Monitoring strategies 	PowerPoint	15 min	<p>Discussion</p> <p>Demonstration</p>
<p>Describe how TeamSTEPPS can be used during therapeutic groups</p>	<p>Examples of how and when to use Mutual Support and Situation Monitoring</p>	PowerPoint	7.5	Discussion

Appendix C
TeamSTEPPS Strategies

C-U-S

- I am **CONCERNED**
- I am **UNCOMFORTABLE**
- This is a **SAFETY** issue

DESC Script

- Describe the specific situation
- Express your concerns about the action
- Suggest other alternatives
- Consequences should be stated

Cross Monitoring

A harm error reduction strategy that involves:

- Monitoring actions of actions of other team members
- Providing a safety net within the team
- Ensuring that mistakes or oversights are caught quickly and easily
- “Watching each other’s back”

Appendix D

Teamwork Perceptions Questionnaire (T-TPQ)

Situation Monitoring	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
15. Staff effectively anticipate each other's needs.					
16. Staff monitor each other's performance.					
17. Staff exchange relevant information as it becomes available.					
18. Staff continuously scan the environment for important information.					
19. Staff share information regarding potential complications (e.g., patient changes, bed availability).					
20. Staff meets to reevaluate patient care goals when aspects of the situation have changed.					
21. Staff correct each other's mistakes to ensure that procedures are followed properly.					
Mutual Support	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
22. Staff assist fellow staff during high workload.					
23. Staff request assistance from fellow staff when they feel overwhelmed.					
24. Staff caution each other about potentially dangerous situations.					
25. Feedback between staff is delivered in a way that promotes positive interactions and future change.					
26. Staff advocate for patients even when their opinion conflicts with that of a senior member of the unit.					
27. When staff have a concern about patient safety, they challenge others until they are sure the concern has been heard.					
28. Staff resolve their conflicts, even when the conflicts have become personal.					

<https://www.ahrq.gov/teamstepps/instructor/reference/teampercept.html>

Appendix E

Team Performance Observation Tool

Date: _____

Unit/Department: _____

Team: _____

Shift: _____

Rating Scale (circle 1) *Please comment if 1 or 2*

- 1 - Very Poor
- 2 - Poor
- 3 - Acceptable
- 4 - Good
- 5 - Excellent

4. Situation Monitoring	Rating
a. Monitors the status of the patient	
b. Monitors fellow team members to ensure safety and prevent errors	
c. Monitors the environment for safety and availability of resources (e.g., equipment)	
d. Monitors progress toward the goal and identifies changes that could alter the plan of care	
e. Fosters communication to ensure team members have a shared mental model	
Comments:	
Overall Rating – Situation Monitoring	
5. Mutual Support	Rating
a. Provides task-related support and assistance	
b. Provides timely and constructive feedback to team members	
c. Effectively advocates for patient safety using the Assertive Statement, Two-Challenge Rule, or CUS	
d. Uses the Two-Challenge Rule or DESC Script to resolve conflict	
Comments:	
Overall Rating – Mutual Support	
Team Performance Rating	