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IMPACT OF TEAMSTEPPS TRAINING ON TEAMWORK PERCEPTION IN TWO
PRIMARY CARE CLINICS

A Doctor of Nursing Practice Project

by

BRITTANEY SHAW, MSN, APRN, FNP-C

Submitted to the Office of Graduate Studies of
Prairie View A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF NURSING PRACTICE

MAY 2023

Major Subject: Nursing Practice

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ABSTRACT

Impact of TEAMSTEPPS Training on Teamwork Perception in Two Primary Care

Clinics

(May 2023)

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Chair of Advisory Committee: Dr. Sharisse Hebert, DNP

Background: Most healthcare delivery involves teams. After teamwork and communication breakdowns, poor patient care, errors, and inefficiencies follow.

Employee engagement surveys from two Galveston County clinics showed concern with teamwork and value. TeamSTEPPS, a team training program, improved attitudes, knowledge, and outcomes, according to the Agency for Healthcare Research and Quality. **Purpose:** The project examined how TeamSTEPPS training affected healthcare professionals' and administrative employees at two Galveston County primary care clinics' teamwork perspectives.

PICOT Question: Among entire staff in two primary care clinics (P), what is the impact of TeamSTEPPS (I) on improving teamwork perception (O) comparing pre-post TeamSTEPPS Teamwork Perceptions Questionnaire (T-TPQ) results after three TeamSTEPPS training programs have been implemented (T)?

Theoretical Framework: This project used the TeamSTEPPS framework to

build methods, methodologies, and resources to complete each stage and collect data for the next level of teamwork enhancement. **Methods:** The T-TPQ measured teamwork perceptions of targeted participants at baseline and after three TeamSTEPPS training sessions. **Data Analysis:** Intellectus Statistics was utilized to evaluate the data. Two-tailed Wilcoxon signed rank tests were performed to determine the significance of pre- and post-intervention teamwork perceptions.

Results: Pre-intervention T-TPQ survey median was 119.90. Post-intervention T-TPQ survey median were 151.97; $V = 39.00$, $z = -3.735$, and $p = 0.001$.

TeamSTEPPS training dramatically enhanced staff teamwork perceptions.

Conclusions: This DNP experiment verified TeamSTEPPS to improve primary care staff teamwork perceptions. **Recommended Future Research:**

TeamSTEPPS research should investigate patient-safety culture and how teamwork perception affects patient outcomes and primary care settings.

Keywords: teamSTEPPS, teamwork, primary care, healthcare professionals, communication, perception

DEDICATION

To my #1 team players: My family members. I am grateful for your love, support, and ability to keep me grounded during this journey. We all succeed together because of your support, helping me achieve my goals and dreams.

ACKNOWLEDGEMENTS

I want to express my gratitude to my distinguished chair, Dr. Sharisse Hebert, for her guidance, support, and supervision during the entire process. I want to express my thanks to my committee members, the Doctor of Nursing Practice professors at Prairie View A&M, and my preceptor Sanah Haque for helping me advance professionally. Finally, thank you to my primary care clinic family for being open and honest and allowing me to carry out my project!

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CHAPTER I

INTRODUCTION

Medical errors are increasing in the healthcare system. More than 250,000 people die annually in the USA due to medical errors (Friebe, 2022). They are the third most significant cause of death, following heart disease and cancer (Anderson & Abrahamson, 2017). According to the study findings, medical errors are caused by human errors such as poor communication and teamwork, which are ultimately preventable (Alsabri et al., 2022).

A team is a discrete group of at least two people who collaborate toward a common goal, purpose, or mission in an evolving, interconnected, and adaptive manner that profits from stable leadership that promotes open communication and problem-solving (Babiker et al., 2014). Teams are essential to ~~our~~ hospitals, workplaces, and daily interpersonal interactions. As clinical care becomes increasingly diversified and complex, medical personnel must tackle difficult health services while quickly learning new approaches. Due to the aging population and the rise of chronic illnesses such as diabetes, cancer, and heart disease, a multidisciplinary approach to healthcare is also required (Curtis, 2015).

This dissertation follows the style of *the American Psychological Association, 7th Ed.*

Systemic successes and failures depend significantly on team performance. In practically every healthcare setting, teams have substantial roles in healthcare delivery. As healthcare work becomes increasingly complicated, teams have become vital to support successful organizational functioning.

Teamwork is essential for creating a more effective, patient-centered healthcare delivery system. Well-designed team development interventions are widely regarded as essential for effective team formation. Working as a team takes work; teamwork must be learned, and team training should begin as early as possible during a career in the healthcare industry. Because no team is flawless, team-based organizations consider interventions necessary for effective team performance (Ballangrud et al., 2017).

In collaboration with the United States Department of Defense, the Agency for Healthcare Research and Quality (AHRQ) launched TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety) as a national standard for healthcare team training in November 2006 (Mohsen et al., 2021). The TeamSTEPPS program is a complete, evidence-based instructional toolkit designed to foster situational awareness and communication among all team members and mutual respect among team members, regardless of status (Clancy & Tornberg, 2007). It has been built on over 25 years of study on teamwork, team training, and culture change to encourage cooperation as well as collaboration among members of healthcare delivery teams (Matzke et al., 2021). As a systematic strategy to improve teamwork in health care, TeamSTEPPS is used in many settings to improve communication and team functions linked to patient safety and healthcare efficiency.

Obenradar and colleagues (2019) found that employee notions of teamwork and collaboration impact their capacity toward giving patients effective, quality treatment. Data on the perception of teamwork in primary care clinics are limited, and understanding how primary care teams work effectively can aid training programs that teach good interdisciplinary techniques. This project aimed to examine the effects of TeamSTEPPS on the perception of teamwork among healthcare professionals and administrative support staff in two primary care clinics. Chapter II reviews TeamSTEPPS's various training methodologies, its impacts on teamwork perception and communication, and patient outcomes. The implementation of methodologies is described in depth in Chapter III.

Background

By putting an unprecedented strain on healthcare institutions, the COVID-19 pandemic emphasized the importance of seamless teamwork and communication among healthcare teams. It has required healthcare workers to work together to save lives while keeping colleagues, family, and friends safe (Eastern Illinois University, 2022). According to the AHRQ (2021), teamwork is a crucial patient safety initiative that can transform the social environment of healthcare delivery. Costello et al. (2021) identified that teamwork promotes team cohesion and lowers medical and nursing errors, resulting in improved patient satisfaction and more effective care. However, while many individuals who work in health care are from clinical settings where teamwork is expected, that same presumption may not be shared by all staff. Healthcare staff must have effective collaboration skills in communication, leadership, situation monitoring, mutual support, and team structure to promote patient safety (AHRQ, 2021).

As a successful team training program, TeamSTEPPS has demonstrated positive changes in attitudes, knowledge, and outcomes (Prochnow & Tschannen, 2022). Using an implementation approach based on Kotter's organizational change model, TeamSTEPPS delivers tools, tactics, and measurements to enhance team practice in all elements of healthcare delivery. Acute and critical care settings usually portray the intricacies of the healthcare environment when a minor error or complication can have life-or-death effects. However, in the outpatient setting, gaps in communication or team consensus can result in similarly complex threats to patient safety and well-being (Parker et al., 2019).

TeamSTEPPS aims to increase healthcare service quality, patient safety, and efficiency by strengthening team structure and capabilities, such as communication, leadership, situation monitoring, and mutual support (Parker et al., 2019). This project aimed to improve the perception of teamwork among primary care clinic team members after implementing the TeamSTEPPS program and tools to support potential work methods and patient care.

Problem Statement

While teams have essential roles in healthcare delivery in almost every environment, effective teamwork is a goal that requires training and growth (AHA, 2017). An employee engagement survey conducted by the leadership team at two primary care clinics in Galveston County — one in La Marque, Texas, and the other in Dickinson, Texas — found room for improvement in the team component using the Enterprise Surveys questionnaire. In September 2021, the employee engagement survey found that team members expressed dissatisfaction with the team's worth and teamwork perception.

Figure 1 depicts the results of four questions from the employee engagement survey. These results suggested a need for improvement in communication, recognition, and accountability among team members

Figure 1

Results of Part of the Employee Engagement Survey



Note. According to survey results, there was some dissatisfaction among physicians, advanced practice providers (APPs), and staff regarding the work environment. Half of the respondents disagreed with the statement that the team worked exceptionally well, and 60% disagreed with being proud to be a team member. Additionally, 70% of the respondents disagreed with feeling recognized for their hard work and successes, and 40% disagreed that their colleagues were accountable for and took ownership of their results.

The employee engagement survey highlighted several recurring issues within the team:

1. There needed to be more accountability among team members.
2. Team members lacked respect for each other.
3. Communication was identified as an area that needed improvement; team members responded that there needed to be more communication among colleagues.

These results suggested a need for improvement in communication and workplace culture to promote a positive work environment where team members were respected, held accountable, and able to communicate effectively. Acknowledging the importance of communication and teamwork in creating a safe and successful healthcare setting, the facilitator spoke with the practice manager of both clinics to examine a structured program that might assist them with improving communication and teamwork perception. TeamSTEPPS was selected for this clinic because it can be customized to the outpatient office-based setting to boost team perceptions (Parker et al., 2019). By comparing the results of pre-post TeamSTEPPS Teamwork Perceptions Questionnaires (T-TPQs), the goal was to determine if the program improved teamwork perception among primary care clinic staff members after implementation.

Purpose of the DNP Project

According to the AHRQ, many medical errors and fatalities are caused by teamwork and communication failures. TeamSTEPPS training was considered a solution after the September 2021 employee engagement survey revealed gaps in views of teamwork. This quality improvement project aimed to evaluate the effects of TeamSTEPPS training on healthcare professionals' and administrative staff's perception of teamwork in two primary care clinics in Galveston County. There is also limited information on the impacts of the TeamSTEPPS program in primary care clinics. The purpose of this project is to better understand the effectiveness of collaborative practice and teamwork perception among primary care clinic employees.

PICO(T) Question

The PICO(T) question for the quality improvement project was: Among healthcare professionals and administrative support staff in two primary care clinics (P), what was the impact of TeamSTEPPS (I) on improvement in teamwork perception (O) within the clinics, comparing T-TPQ (C) results after three TeamSTEPPS training programs have been implemented (T)?

The PICOT question elements were:

- **(P)Population:** The targeted participants: Healthcare professionals (medical doctors, physician assistants, nurse practitioners, and medical assistants) and administrative support staff (patient reception specialists) employed at two primary care clinics in Galveston County.
- **(I)Intervention:** Three one-hour sessions focusing on TeamSTEPPS for the Office-Based Care team training program implemented in two primary care clinics in Galveston County.
- **(C)Comparison:** Pre-Post intervention TeamSTEPPS T-TPQ survey results for intervention participants.
- **(O)Outcome:** Improvement in teamwork perception indicated by T-TPQ survey results.
- **(T)Time:** Comparison of pre/post intervention T-TPQ results by the TeamSTEPPS facilitator after conducting three TeamSTEPPS training sessions.

Significance to Advanced Practice Nursing and Health Care System

In the context of patient safety, healthcare organizations consider teamwork training as a critical intervention. For example, even though a team is composed of professionals, the team can only succeed if members understand how to collaborate,

manage, and communicate efficiently. To safeguard the enhancement and preservation of effective team performance, the organization must employ team development interventions (Salas et al., 2018).

The TeamSTEPPS program teaches healthcare professionals, such as advanced practice nurses, how to develop successful team dynamics via improved communication, leadership, team structure, situation monitoring, and mutual support. The program offers a fresh approach to instructing nursing staff and healthcare professionals about effective collaboration by delivering information, resources, and tools necessary to improve the quality of care, partnerships, and employee engagement/retention.

Definitions of Relevant Terms

Team

A team is a diverse group of two or more people who cooperate to accomplish a shared goal, purpose, or mission. Team members are assigned tasks or responsibilities to complete (Babiker et al., 2014).

Effective Team

An effective team works together to improve patient care by sharing observations, expertise, and decision-making responsibilities (Babiker et al., 2014).

Teamwork

Teamwork integrates members' contributions toward achieving a common objective (Cooke & Valentine, 2021).

Perception

Perception is awareness, cognition, or comprehension of something (Perception, n.d.).

TeamSTEPPS

TeamSTEPPS is an evidence-based teamwork method designed to help healthcare workers improve communication and teamwork abilities (AHRQ, 2021)

Organization of the Remainder of the Study

Teams' relevance in healthcare delivery has expanded as demands for restructuring, reorganization, and cost-cutting have increased. The complexity of healthcare knowledge has also increased (Sanderson & West, 2019). Team effectiveness is required to achieve the goal of provision of high-quality patient care. Improving communication, collaboration, and teamwork is essential for efficient team function, and team training is required. Healthcare organizations must provide high-quality patient care by fostering a large team-based culture and incorporating TeamSTEPPS. How TeamSTEPPS improves teamwork perception and communication, clinical outcomes, and patient safety are discussed in detail in the literature review in Chapter II.

CHAPTER II

LITERATURE REVIEW

Teamwork and communication are crucial to healthcare activities. Collaboration failures (e.g., poor communication) significantly contribute to 68.3% of patient harm; thus, teamwork failure is a significant source of avoidable medical mistakes (Hughes et al., 2016). The effectiveness of team training has been well-researched in healthcare. Several studies have highlighted the need of effectively executing training programs to improve patient safety, performance outcomes, employee behaviors, and altogether quality of care. The TeamSTEPPS program, described further in Chapter II, is an evidence-based initiative that can enhance interprofessional collaboration and patient outcomes via more outstanding teamwork and communication. Information acquired from the analysis and synthesis of this literature review will show the value of TeamSTEPPS training and tools to increase organizational collaboration.

Search Strategy

The online databases or search engines that offered the most up-to-date information about the effectiveness of TeamSTEPPS were MEDLINE, Cochrane Library, CINAHL, PubMed, Wiley, and Science Direct. A leading United States government agency, the AHRQ, also has a website that was searched for years 2021–2022. The search consisted of the following terms and combined keywords: team, communication, outpatient, healthcare, teamwork, training, education, TeamSTEPPS, perception, intervention, team effectiveness, primary care, healthcare professionals, healthcare team, performance, outcome, and effective team. The main topics included various

TeamSTEPPS teaching approaches, TeamSTEPPS' impact on teamwork perception, communication, and patient outcomes/safety.

Theoretical Framework

The TeamSTEPPS conceptual model served as the project's framework as shown in Figure 2. The model is a direct result of the Institute of Medicine's report from 1999, *To Err is Human*, which suggested the need for teamwork and communication training in healthcare to help reduce the number of medical mistakes. TeamSTEPPS is based on team competence outcomes, such as shared mental model knowledge, mutual trust attitudes, team orientation, flexibility, accuracy, productivity, efficiency, and safety performance (Ballangrud et al., 2017).

The effectiveness of the paradigm has been proven in high-risk environments, including aviation and nuclear power. Communication, team structure, leadership, situation monitoring, and mutual support are the five fundamental principles of TeamSTEPPS. These concepts connect dynamically; effective interaction increases communication, teamwork, and care quality (Matzke et al., 2021). The three phases of the TeamSTEPPS intervention are Phase I, Assessment; Phase II, Planning, Training, and Implementation; and Phase III, Sustainment (Mohsen et al., 2021). The TeamSTEPPS framework establishes processes, techniques, and resources for completing each step; data collection is required to transition to the next step. Including the appropriate parties, data-driven decision-making, and meticulous preparation before teamwork performance are all essential components of the TeamSTEPPS initiative's success.

Phase I: Assessment

The purpose of Phase I is to evaluate organizational preparedness for a TeamSTEPPS program and characterize the problem, challenge, or improvement opportunity. During Phase I, the primary care clinic identifies the change team's leaders and key champions. This change team's mission is to recognize specific possibilities for enhancement that can be accomplished via a teamwork initiative. A site assessment is steered to establish whether the institution is committed to assisting the project (including by providing leadership support), possible impediments to change implementation and whether resources are available to support the effort successfully (King et al., n.d.).

Completion of a quick Communications Assessment Survey: The T-TPQ is completed during the latter part of Phase I. This 35-item survey is used to evaluate staff perceptions of teamwork prior to implementation. The T-TPQ is valid, reliable, and effective for predicting TeamSTEPPS implementation readiness and post-implementation success in various settings and scenarios (Parker et al., 2018).

Phase II: Planning, training, and implementation

Phase II is the TeamSTEPPS Initiative's planning and implementation phase. During this phase, one change team member attends a TeamSTEPPS master training course, which teaches the four core team abilities of leadership, communication, situation monitoring, and mutual support. These core abilities are supported by simple tools and tactics that, when used regularly, foster the expertise, skills, and attitudes required for high-performing teamwork (AHRQ, 2021).

The developed plan outlines what to expect and the objectives to be met and is then communicated to healthcare professionals and administrative staff. The

TeamSTEPPS intervention, team techniques, and their applications used to achieve changes are covered in depth.

TeamSTEPPS was created to be customized to the organization in which it is used. The strategy is office-based. During three one-hour training sessions, the team can engage with a facilitator to increase team performance. The plan developers (i.e., the clinical practices) design training plans that deliver training during regular practice hours to eliminate disruptions and scheduling issues and to improve learning (AHRQ, 2021).

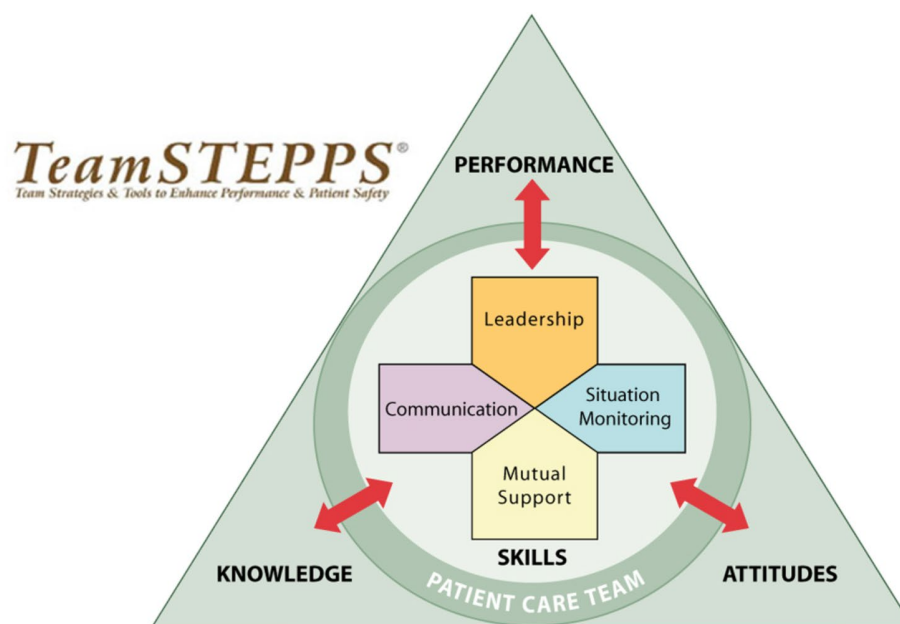
Phase III: Sustainment

Phase III aims to maintain and spread the TeamSTEPPS Initiative's advances in teamwork performance, clinical procedures, and outcomes. Throughout this phase, the clinic continues to improve and implement its teamwork effort and to examine long-term integration initiatives. Sustainability is managed by the authorized change team through coaching and efficient team performance evaluation. Providing relevant, continuing feedback to personnel in contexts where daily health care is offered is what team performance feedback implies. Continuing core curriculum training using refresher courses and newcomer orientations is also provided (King et al., n.d.). A T-TPQ to collect data for a post-intervention assessment to determine how TeamSTEPPS implementation has impacted team perception is also completed during this phase.

As previously mentioned, Figure 2 represents the TeamSTEPPS Conceptual Model, which illustrates the relationship between the four skill categories and team-related outcomes which is shown below.

Figure 2

The TeamSTEPPS Conceptual Model



Note. TeamSTEPPS is a research-based framework for improving team performance throughout the health-care delivery system. This structure is made up of four teachable skills: leadership, situation monitoring, mutual support, and communication. The red arrows on the TeamSTEPPS framework illustration depict a dynamic two-way connection between the four types of skills and team-related results. A team's efforts to provide safe, high-quality care are based on interactions between outcomes and skills. The patient care team, which represents the patient and those who support them within the health care delivery system, surrounds the four skills. (AHRQ, 2021).

Summary and Synthesis of Research Findings

Various Teaching Approaches of TeamSTEPPS

The AHRQ developed TeamSTEPPS to include several instructional modalities to enable its application in various settings and scenarios.

Simulation-Based Training

Because simulation training gives a realistic, engaging experience in the context of the learner's work, it produces the best educational outcomes. Simulation allows trainees to participate. Instead of sitting through a training presentation, trainees can

practice what they learned and quickly learn from mistakes without experiencing severe consequences. However, simulation cannot always wholly recreate real-life situations, and the outcomes and feedback are as effective as the training itself (Srivastava, 2021).

Published studies were evaluated in Parker et al.'s (2018) integrated review. Studies included in this review applied different teaching methods and implementation of the TeamSTEPPS curriculum, comprising of simulation-based training (SBT), virtual learning environments, in-person didactic sessions, storytelling, case study reviews, and teaching methods. While all can be effective, multiple small studies found that SBT was superior (Parker et al., 2018). Parker et al.'s (2018) integrated review also found that TeamSTEPPS resulted in incremental gains in patient safety, reduced medical errors, greater morale among employees, and higher patient satisfaction in small trials.

Similarly, Harvey et al. (2013) found that SBT improved trauma team performance and patient outcomes while new physicians and nursing personnel were integrated into that time-sensitive, high-stress environment. The TeamSTEPPS SBT program is a crucial component of the curriculum for trauma learning. It can be a successful example of team training in other high-risk healthcare environments. Likewise, Capella et al. (2010) created a diverse team training curriculum optimized only by simulation utilizing TeamSTEPPS. After comparing pretraining and post-training resuscitations with the Trauma Team Performance Observation Tool, the two-hour course significantly increased team performance and patient care efficiency.

Didactic Teaching

A didactic teaching approach includes an instructor teaching a trainee using planned lessons and lectures. Readings, PowerPoint presentations, video clips, and narrated or recorded lectures are examples of didactic learning. Didactic education efficiently presents a large volume of foundational knowledge and is familiar to students based on previous experiences with learning. However, it is frequently perceived as tedious and tiresome for students to listen to consecutive lectures (Häggman-Laitila et al., 2016).

Allin et al. (2016) implemented a four-hour training session that included didactic instruction based on the published TeamSTEPPS curriculum, video vignettes, and small group discussions. At 0-, 45-, and 90 days following training, the TeamSTEPPS knowledge exam and AHRQ Hospital Survey attitude test were administered. Knowledge and attitudes were substantially improved 45 days after baseline and were stable by day 90. Obenrader et al. (2019) also used didactic education to implement TeamSTEPPS for their participants. The training included video vignettes, table conversations, and role-acting to help students develop and apply new communication skills. The team's perceptions of communication and teamwork in the emergency department improved due to the project.

Didactic Teaching/Simulation Training

Simulation entails creating an artificial depiction of multifaceted clinical situations. In contrast, didactic lectures are core curriculum content topics frequently delivered as group lectures or discussions. Combining both training methods in a single lecture can significantly improve learning (Raleigh et al., 2018).

TeamSTEPPS studies that combined didactic teaching and simulation found improvements in teamwork knowledge, communication, and attitudes. Wong et al. (2016) collaborated to create a three-hour TeamSTEPPS training that included didactic presentations, simulated situations, and structured debriefing. They found significant improvement in four of the five TeamSTEPPS principles, with simulation-enhanced training having the most significant impact on attitudes toward teamwork, patient safety culture, and communication. The Matzke et al. (2021) program combined interdisciplinary didactic teaching mechanisms, TeamSTEPPS basics, and interactive learning simulations to promote trauma resuscitation collaboration. TeamSTEPPS was essential to trauma teamwork training by increasing knowledge and self-confidence in a high-stakes clinical setting (Matzke et al., 2021).

Virtual Learning Environment

Because it is not always possible to provide TeamSTEPPS training in a physical setting, virtual learning may be an option. Virtual learning uses computer software or internet resources to instruct students and achieve learning goals. Instructors use this format to communicate and interact with their students in various ways, such as real-time video instruction. It is highly adaptable and accessible, but technical issues, lack of interaction, and online distractions are potential disadvantages (Learning A–Z, 2022).

Sweigart et al. (2016) described a quick intervention that included a virtual learning environment and a TeamSTEPPS-based scenario. This study revealed its versatility using virtual learning experiences to evaluate the effects on collaborative attitudes among learners from diverse professions. Participants had substantial attitude changes in the T-TPQ categories of leadership, situation monitoring, mutual support, and

communication (Sweigart et al., 2016). Comparatively, Caylor et al. (2015) conducted multi-professional simulations concerning a fictitious error disclosure patient case using modified TeamSTEPPS® training to investigate the use and effectiveness of a virtual world, Second Life. Pre- and post-simulation surveys assessed students' perceptions and attitudes towards working in teams and engaging in multi-professional learning. The results suggested that Second Life could be a valuable platform for multi-professional learning, but other platforms with better user interfaces and less technical complexity should be considered.

TeamSTEPPS Effects

According to the AHRQ, TeamSTEPPS offers hospitals and healthcare systems the expertise, sources, and tools to increase patient safety, staff engagement, and care quality. The influence of TeamSTEPPS on teamwork perception and communication has been extensively documented in the scientific literature.

Effects of Teamwork Perception and Communication

In almost every environment, teams are vital for effective healthcare delivery. A team's capacity to work together is defined by its performance and ability to adapt to changing circumstances (Cooke & Valentine, 2021). Effective communication can be difficult in a fast-paced, complicated setting like the emergency department, where several staff members care for patients as part of the healthcare team. After one 60-minute educational training session at an academic Level I Emergency and Trauma Center, TeamSTEPPS was revealed to be a successful program for increasing teamwork perception and communication (Matzke et al., 2021). An evaluation performed three weeks after the TeamSTEPPS intervention found that it contributed to supporting trauma

teamwork training to boost knowledge and self-confidence in this high-stakes clinical context.

Obenrader et al. (2019) conducted a similar trial in which they introduced TeamSTEPPS in the emergency department of a small community hospital. The T-TPQ evaluations performed before, 15 days after, and again 30 days following training found that TeamSTEPPS training increased team members' perceptions and attitudes toward communication and teamwork. The results of the T-TPQ analysis found that each category was statistically significant 30 days following formal training for communication, teamwork, situation monitoring, mutual support, and behavior (Obenrader, 2019). Likewise, positive improvements were found for the 18 TeamSTEPPS research projects assessed by the authors in the Gaston et al. (2016) study, particularly for staff perceptions of teamwork. In one study, positive staff views of teamwork perception were increased 13% by one month after TeamSTEPPS implementation, along with reduced medical errors.

Impact on Patient Outcomes and Patient Safety

Communication breakdowns and a lack of coordination can severely affect the quality of care given to patients. When all clinical and nonclinical staff communicate well, healthcare teams can improve patient outcomes, prevent medical errors, increase efficiency, and raise satisfaction among patients (AHA, 2017). Poor communication is cited as a significant cause of sentinel occurrences by the Joint Commission (Dingley et al., n.d.). About 85% of acknowledged problems are related to ineffective communication, with the remainder being administrative errors (Gaston et al., 2016).

Cruz et al. (2017) used TeamSTEPPS to reduce adverse occurrences throughout the discharge process by enhancing communication between staff members and fostering effective teamwork. The hospital stay duration decreased after implementing TeamSTEPPS, resulting in financial savings, greater patient satisfaction, and lower readmission rates. Correspondingly, Mohsen et al. (2021) investigated the influence of TeamSTEPPS implementation on patient safety and impacts in primary healthcare facilities. TeamSTEPPS improved the patient safety culture among healthcare providers, leading to notably higher patient outcomes and satisfaction. The assessment of patients for reported adverse events also revealed a substantial decrease in reporting incidence across all categories studied (i.e., diagnostic mistakes, treatment errors, preventative services errors, and communication errors) (Mohsen et al., 2021).

Effects on Patient Satisfaction

Studies that examined the correlation amongst teamwork and patient satisfaction found improvements in the quality and effectiveness of healthcare. Parker et al. (2018) conducted an integrated review, with only one study that assessed patient satisfaction as a secondary goal. This study found a link between increased patient satisfaction and communication and substantially reduced errors. Because reducing clinical errors and improving staff morale had a direct and optimistic effect on the patient experience, the impact of TeamSTEPPS adoption on patient satisfaction was relative (Parker et al., 2018). More study is needed to identify the connection linking successful TeamSTEPPS implementation and patient satisfaction. Because patient satisfaction scores are reported retrospectively, larger sample groups and more extended assessment periods are required to study the effects on patient satisfaction (Parker et al., 2018).

Mohsen and colleagues' findings corroborated the findings of Parker and colleagues' (2018) integrative study, which found a significant reduction in clinical error rates and increased patient satisfaction following a TeamSTEPPS initiative. Similarly, Hines and Sora (2012) found that TeamSTEPPS improved clinical outcomes and overall safety culture while positively impacting patient satisfaction. Overall, TeamSTEPPS implementation was linked to considerable improvements in communication, decreased clinical error rates, and increased patient satisfaction (Parker et al., 2018).

Chapter Summary

In summary, high-quality patient care is conditional on team effectiveness, achieved through building highly effective medical teams that produce the most significant clinical health outcomes for patients. TeamSTEPPS is a validated, comprehensive, evidence-based program to enhance staff perception and communication and transform healthcare culture to improve clinical outcomes and patient safety. Substantial literature validates the TeamSTEPPS program. However, there needs to be more application in the primary care setting.

The Department of Defense and the AHRQ released step-by-step application instructions for practice settings as well as the complete TeamSTEPPS curriculum (Matzke et al., 2021). This quality improvement project aimed to evaluate the effects of TeamSTEPPS on staff perceptions of teamwork. The methods used to conduct this project are discussed in Chapter III. This chapter presents the project's design, settings, population/sample, instrument/measure, intervention, data collection, data analysis, and ethical considerations.

CHAPTER III

METHODOLOGY

Working as a team has advantages that include job satisfaction, workplace dedication, and engagement. Teamwork has been highlighted as a critical initiative in patient safety that has the potential to revolutionize the healthcare culture. According to patient safety specialists, communication and other collaboration skills are crucial to providing excellent health care, preventing, and decreasing medical errors, and improving the sense of teamwork (Cooke & Valentine, 2021). This quality improvement project's design, methodology, participants, intervention, data collection, data analysis, and ethical issues are presented in Chapter III.

Research Design/Setting

This quality improvement project used a pre-test/post-test methodology design to analyze healthcare professional and administrative staff perceptions of teamwork at two primary care clinics in La Marque and Dickinson, cities in Galveston County, Texas, south of Houston. These clinics provided comprehensive primary care services to an average of 25 patients per day. They provided acute and chronic illness treatment, patient education, and preventative care. Except for major holidays, the clinics were open seven days a week, Monday through Friday, 7 a.m. to 7 p.m., and Saturday and Sunday, 9 a.m. to 5 p.m.

The practice manager's responsibilities included overseeing and managing all administrative and business activities at the clinics. Each clinic's practice manager reserved times on the study participants' calendars to accommodate the training sessions for this quality improvement initiative. The time reservations helped eliminate

interruptions and schedule difficulties, and improved learning. The practice managers were available to provide any additional resources required to conduct the training in the clinic environment.

Population/Sample

The targeted participants consisted of the following working staff members from the Dickinson and La Marque primary care clinics: Healthcare Professionals (Board-Certified Family Medical Doctors, Board-Certified Physician Assistants, Board-Certified Family Nurse Practitioners, and Certified Medical Assistants) and administrative staff, facilitated by a project investigator who was a Board-Certified Family Nurse Practitioner. To obtain the knowledge and skills necessary to implement the TeamSTEPPS training sessions, the TeamSTEPPS facilitator that conducted each training session completed the self-paced online Master TeamSTEPPS Trainer modules using published resources on the AHRQ website.

Running a clinic successfully requires team effort, and it is essential that everyone understand their duties and responsibilities to perform assigned tasks efficiently. Administrative staff are responsible for checking in patients for appointments, arranging appointments, answering phones, managing patient records, and communicating with insurance companies on billing. Medical assistants carry out routine administrative and clinical tasks under the supervision of healthcare providers (medical doctors, physician assistants, and nurse practitioners). Healthcare providers educate, examine, diagnose, and treat patients.

Convenience sampling was used to enroll clinic staff who were interested in participating in the project. A sample-size calculation was performed using a medium

effect-size estimate of $d = 0.5$. The minimum sample size for the Wilcoxon signed rank test was $n = 32$, with a significance threshold of $\alpha = 0.05$ and a power = 0.80.

Instrument/Measures

The T-TPQ (Appendix A) was chosen to examine perceptions of teamwork in this convenience sample since it is extensively used in health care environments and evaluates the main components of teamwork. T-TPQ is a 35-item Likert-style questionnaire created by the AHRQ. It assesses teamwork perceptions in the areas of team structure (seven items), leadership (seven items), communication (seven items), mutual support (seven items), and situational monitoring (seven items) (AHRQ, 2021). The questionnaire should take no more than seven minutes to complete.

In addition to individual examination of each component, an overall score is computed and assessed. The T-TPQ has a total potential score of 175 points, with 35 questions and a maximum of five points per question. Response options to T-TPQ questions range from strongly disagree to strongly agree on a scale of 1–5; a higher score indicates positive perceptions of teamwork. The T-TPQ has been thoroughly tested and has internal consistency; Cronbach's alpha values range from 0.786 to 0.844 across all five categories (Ballangrud et al., 2019). The Qualtrics survey platform was used to track the pre-post T-TPQ questionnaire responses and provide the data.

Intervention

The Houston area Senior Medical Director of the implementation sites signed a letter of support (Appendix B), and TeamSTEPPS implementation was therefore allowed to begin following Institutional Review Board approval (Appendix C). The initiative was communicated via email to all staff members at both clinics. Those who chose to

participate replied to the recruitment email (Appendix D) to confirm their commitment.

All confirmed participants received a second email with details about the three TeamSTEPPS training sessions, dates, and an overview of what to expect and the goals to achieve.

The second email contained a link to the T-TPQ pre-test and instructions for completion. Each participant was assigned a unique participant identification number so that the pre- and post-tests could be matched for examination of changes in individual perceptions. Before proceeding to the list of questions, each participant was required to provide consent on the first page of the T-TPQ pre-test. The pre-test was given at the start of the study (one week before the first TeamSTEPPS training session) to measure baseline knowledge of staff perceptions and teamwork in the primary care clinics.

One week, and two days, before the training sessions were held, participants received scheduled automated emails with reminders to attend. Those who could not attend were given one-on-one training sessions. Before project participation occurred, each participant completed a written Informed Consent form (Appendix E) and was given a copy for their records. At the beginning of each training session, all present signed an attendance sheet (Appendix F). As in the Matzke et al. (2021) study, participants received an email one week after each training session that included a summary of the information presented to solidify and reaffirm principles. The TeamSTEPPS facilitator was accessible for one-on-one discussions between training sessions to address any additional questions. Staff members were encouraged to consider what they learned and apply the information to everyday activities.

All sessions were held on-site and delivered in person. The first session included an introduction to the TeamSTEPPS program and a discussion of why it should be implemented in the primary care workplace culture. The TeamSTEPPS principle, team structure, was also discussed during the first training session. Similar to the Matkze et al. (2021) study, the TeamSTEPPS curriculum was used to create a 60-minute educational “lunch and learn” session designed for the primary care setting. A variety of strategies were used to encourage staff learning. They included a team-building activity (paper chains), a video vignette (Poor Teamwork in a Medical Office), and a participant handout (Thinking About Your Office-Based Team/Video Reflections Worksheet) (Appendix G). Discussions of published PowerPoint slides in the TeamSTEPPS introduction and Team Structure (Appendix H) were also used.

The second TeamSTEPPS training session was one month following the first, with another one-hour face-to-face training session in the clinic. Two TeamSTEPPS core elements, communication, and leadership, were examined in this session. TeamSTEPPS-published PowerPoint slides on Communication/Leadership (Appendix I), a participant handout (When and Why to Use a Huddle) (Appendix J), and video vignettes (Good Teamwork Communication and Leadership Videos) were also included.

The final 60-minute in-person session was held one month after the second session. The final two TeamSTEPPS essential concepts, situational monitoring and mutual support, were presented using published PowerPoint slides (Appendix K), simulation activities using the DESC communication tool (Appendix L), and video vignettes (Situational Support and Mutual Support Videos). Time was reserved near the end of session 3 for staff to ask questions and provide feedback.

After completing the third training session, the T-TPQ post-test survey was issued using Qualtrics to measure the overall change in staff perceptions of teamwork. The staff were given two weeks to complete the T-TPQ post-survey, and the outcomes of the pre- and post-T-TPQ surveys were compared. Automatic reminders were sent out on days seven and 12 to complete the T-TPQ post-survey. After completing the three sessions, the TeamSTEPPS facilitator remained available to ensure that collaboration behaviors were integrated into daily practice and to provide assistance. This oversight ensured that there were chances to use the tools and methods taught, practice and get feedback on the learned skills, and regularly support the TeamSTEPPS concepts in the primary care clinics.

Data Collection

The data were collected using the application Qualtrics, which allowed users to quickly create surveys, collect and store data, and provide results. Like SurveyMonkey, the Qualtrics survey platform allowed users to reach out to individuals and obtain feedback (Qualtrics, 2022). Compared with Survey Monkey, Qualtrics had more extensive reporting choice options and complicated analytics features built into the platform.

The AHRQ TeamSTEPPS Teamwork Perception Questionnaire Manual contained detailed information on the development, testing, and validation of the T-TPQ (Ballangrud et al., 2017). The T-TPQ components consisted of five essential concepts established on team structure and the four learnable skills of leadership, situation monitoring, mutual support, and communication (see: Table 1).

Before the initial training session, each participant was given a unique number known only to them and the facilitator. This number allowed examination of pre- and post-test data while maintaining participant confidentiality. Following completion of implementation, pre-test and post-test questionnaires were compared and responses were transcribed anonymously.

Table 1

TeamSTEPPS Key Principles

Team structure	Identification of the components of a multi-team system that must work together effectively to ensure patient safety
Leadership	The 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	The process of actively scanning and assessing situational elements to gain information or understanding or to maintain awareness to support team functioning
Mutual Support	The ability to anticipate and support team members' needs through accurate knowledge about their responsibilities and workload
Communication	The structured process by which information is clearly and accurately exchanged among team members

Note. Summary of TeamSTEPPS Principles (AHRQ, 2021)

Data Analysis

Because participant responses to the Likert-type scale were not normally distributed, a non-parametric test was used instead of the paired t-test. The non-parametric Wilcoxon signed rank test was applied to assess variations in total scores from the pre-tests to the post-tests.

Ethical Considerations

The Institutional Review Board-of Prairie View A&M University evaluated whether this quality improvement project complied with all governmental, institutional, and ethical regulations to safeguard the health and rights of all participants. After outlining the goals and methods of the study, voluntary involvement was secured, and the required informed consent was achieved. All participants received assurance that the information collected was managed confidentially. At the beginning of the training session, each participant was allocated a unique number known only to them and the facilitator. Thus, pre- and post-intervention scores could be examined and compared while each participant's confidential information was preserved. The collected data were securely stored in a password-protected computer and will be stored for three years. Only the facilitator will have access to the records.

Chapter Summary

This quality improvement project supported TeamSTEPPS, a well-validated program designed to improve staff perceptions of teamwork and collaboration in primary care clinics. There are always opportunities to improve teamwork in all five areas of the TeamSTEPPS principles. Communication, feedback, and conflict resolution are also transferable to other positions and situations. Therefore, when these skills are taught and developed, they can affect the individual and the organizational environment. Future research must provide practical solutions that enhance teamwork abilities and assess the direct effects on patient outcomes.

CHAPTER IV

RESULTS

Chapter IV describes the data obtained, the results of the data analysis, the study's findings, and a summary of this Doctor of Nursing Practice (DNP) project's outcomes. The results section is designed to clearly describe the team's progress, identify significant successes and areas for improvement, and provide actionable recommendations for the team to consider moving forward.

Demographic Characteristics

31 clinic staff participated in the training and completed the pre-and post-TTPQ surveys. The results of the demographic questions are presented in Table 2. In terms of race, most participants were Black or African American (64.52%), followed by White or Caucasian (19.35%), Asian (12.9%), and other races (3.23%). Participants were aged 18 to 65+ years; most were between 35 and 44. All healthcare professionals (physicians, advanced practice providers (nurse practitioners, physician assistants), and medical assistants) and administrative support staff were included in the project at the specified healthcare locations. Of 26 healthcare professionals and five administrative employees, 32.26% were physicians, 32.26% were medical assistants, 19.35% were advanced practice providers, and 16.13% were administrative personnel.

Table 2*Demographic Characteristics of Participants*

Variable	n	%
Race/Ethnicity		
Black or African American	20	64.52
White or Caucasian	6	19.35
Asian	4	12.9
Other	1	3.23
Age Group		
35-44 years old	15	48.39
25-34 years old	6	19.35
65+ years old	2	6.45
45-54 years old	7	22.58
18-24 years old	1	3.23
Clinic Role		
Medical Assistant	10	32.26
Physician	10	32.26
Administrative Staff	5	16.13
Advance Practice Provider	6	19.35

Note. The most frequently observed Race/Ethnicity category was Black or African American (n = 20, 64.52%). The most observed variety of age groups was 35-44 (n = 15, 48.39%). The most frequently observed clinic role categories were medical assistant and physician, each with an observed frequency of 10 (32.26%). Results for frequencies and percentages are presented in Table 2.

+

Results of T-TPQ Surveys

The TeamSTEPPS training was administered to a total sample size of n = 37.

After excluding employees (n = 6) who left the organization due to changes in employment status during the implementation period, the results of 31 participants were used in the analysis. The T-TPQ survey yielded higher scores for the post-training assessments than the pre-assessments before the first training session. The survey results indicated that the training improved participants' perceptions of teamwork.

The results for the summary statistics are presented in Table 3. The 31 participants who participated in the TeamSTEPPS implementation for the three training sessions and completed the pre-and post-TTPQ surveys were compared. The median value for PRESUM (pre-intervention survey results) was 119.90; the median value for POSTSUM (post-intervention survey results) was 151.97. The results indicated TeamSTEPPS training resulted in statistically significant improvement in overall staff perception of teamwork and collaboration with individual employees. The variance was more expansive for the pre-intervention survey scores (range of 35 to 175) than for the post-intervention survey scores (capacity of 116 to 175).

Table 3

Pre- and Post-Intervention Median T-TPQ scores

Variable	<i>M</i>	Min	Max
PRESUM	119.90	35	175
POSTSUM	151.97	116	175

Note. The observations for PRESUM had an average of 119.90 (Min = 35.00, Max = 175.00). The observations for POSTSUM had an average of 151.97 (Min = 116.00, Max = 175.00).

Methodological Approach

The TeamSTEPPS Program Methodological Approach was used to analyze the data following these steps:

1. *Defining the Problem:* The facilitator began by defining the problem and identifying the specific, measurable outcomes.
2. *Data Collection:* The facilitator collected the data required to measure the desired outcomes. This information included pre- and post-TTPQ surveys.
3. *Data Analysis:* Several statistical approaches, including descriptive statistics, were used to analyze the data.
4. *Results Interpretation:* The results were analyzed to determine the efficacy of the TeamSTEPPS program and its effects on the desired outcomes.
5. *Conclusions:* The team reached conclusions about the effectiveness of the TeamSTEPPS program and its effects on the outcomes.

Analysis of Data

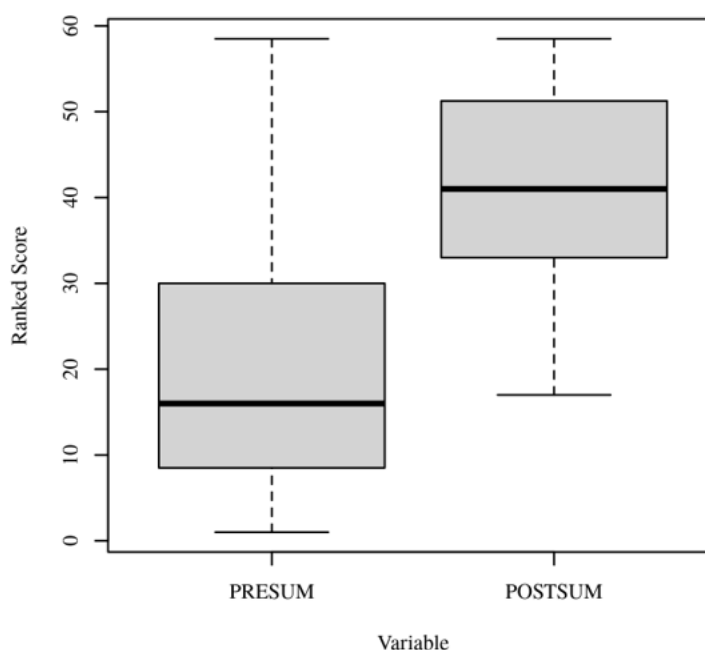
After the intervention, the pre-intervention and post-intervention surveys were compared. The responses were anonymously transcribed into Excel and loaded into the Intellectus Statistics software program for analysis.

Mean, standard deviation, frequency, and percentage values were included in the computation of descriptive statistics. The Wilcoxon signed rank test results were significant ($V = 39.00$, $z = -3.735$, $p = 0.001$). This result indicated that the difference between the PRESUM and POSTSUM responses was not due to chance. The PRESUM median value (median = 119.90) was substantially lower than the POSTSUM median

(median = 151.97.00). A boxplot of the ranked values for the PRESUM and POSTSUM results is presented in Figure 3.

Figure 3

Ranked values of PRESUM and POSTSUM results, with interquartile ranges



Notes. A boxplot of the ranked values for PRESUM and POSTSUM.

Chapter Summary

TeamSTEPPS training improved participants' perceptions of teamwork, as evaluated by their post-T-TPQ scores. To greatly advance the quality and safety of care, healthcare professionals and administrative staff must collaborate to provide optimal patient care while maintaining effective teamwork and communication among team members. The description of this DNP project concludes in Chapter V with a summary and discussion of the findings, implications, limitations, contributions to the literature, and potential future initiatives.

CHAPTER V

DISCUSSION

The project's primary goal was to assess the effect of TeamSTEPPS training on healthcare professionals' and administrative staff's perceptions of teamwork. Chapter V highlights the primary outcomes of the DNP project. It is divided into sections that present a summary and discussion of the results, the implications, limitations, contributions to the literature, and prospective future initiatives.

Summary of Results

The most common reasons for sentinel events and avoidable medical errors are poor communication and ineffective teamwork (AHQR, 2021). This DNP project was inspired by an employee engagement survey conducted at the healthcare organization that includes the two clinics involved in this project. The findings revealed that many team members wanted to be more satisfied with their perceptions of teamwork and communication.

The project was performed in three stages. In the first phase, a critical literature review was completed to lay the groundwork for the development of the intervention. The TeamSTEPPS program was implemented in the second phase, along with T-TPQ pre-post surveys to collect data from the target population. The survey data were analyzed in the third phase to determine the findings. Overall, the TeamSTEPPS training results were statistically significant. As described in Chapter IV, the findings revealed that the median value for the interpretations for the pre-intervention survey was 119.90; the observations for the post-intervention survey had a median value of 151.97. This result indicated that there was an enhancement in the perception of teamwork.

This DNP project made valuable contributions to the existing literature in several ways. First, it introduced a comprehensive model for evaluating the effectiveness of the TeamSTEPPS program in a specific target population. Second, the project found that the TeamSTEPPS program significantly enhanced teamwork perception. Finally, the project developed a framework for improving communication and care coordination within primary care settings. The study's findings are helpful for healthcare professionals seeking to improve their teamwork and communication skills and ultimately enhance patient care quality.

Discussion of Results

This project found that participants' pre-T-TPQ scores were low but improved significantly after TeamSTEPPS implementation. These results answered the project's PICO question, "What is the impact of TeamSTEPPS on the improvement of teamwork perception (O) within the clinics comparing T-TPQ (C) results after three TeamSTEPPS training programs have been implemented over three months (T) among healthcare professionals and administrative support staff in two primary care clinics (P)?"

The outcomes of this DNP project indicated that after implementing three 60-minute TeamSTEPPS training sessions, overall TeamSTEPPS Teamwork Perception Questionnaire (T-TPQ) scores improved. This finding revealed that the TeamSTEPPS program was successful at strengthening primary care staff members perceptions of collaboration and teamwork. These project outcomes support TeamSTEPPS implementation, despite the time constraint of a 60-minute training period, by merging TeamSTEPPS principles and formal training in primary care clinical practice environments.

The scheduled sessions occasionally caused difficulties for participants due to availability. Therefore, individual make-up sessions were held for participants who could not attend a scheduled session. At each make-up session, the information was communicated via a brief in-person meeting or the team's virtual platform, allowing each participant to understand the data presented thoroughly.

Discussion of the Conclusions Relative to the Literature

One TeamSTEPPS aim is to encourage team-based techniques that use evidence-based strategies. Overall, the TeamSTEPPS studies reviewed in the literature review found that when healthcare teams use the program's concepts and tools, such as team huddles or conflict resolutions, their communication, collaboration, and teamwork perception improve. As a result, there may be an increased frequency of better patient outcomes, increased teamwork perception, fewer medical errors, and greater patient safety (AHRQ, 2021).

The Gaston et al. (2016) study aimed to evaluate the effectiveness of a patient safety program implemented at a community hospital. The study collected data on patient safety incidents before and after implementing the TeamSTEPPS program. The results indicated a significant reduction in patient safety incidents following program implementation. Specifically, there was a 28% reduction in falls with injury, a 68% reduction in patient identification errors, and a 38% reduction in medication errors. The results of this project were consistent with the Gatson et al. (2016) study, which found that staff perceptions of teamwork improved in the TeamSTEPPS research projects they evaluated.

Matzke et al. (2021) performed a study to evaluate the effectiveness of incorporating the TeamSTEPPS training program at an academic level I emergency and trauma center to improve staff collaboration. The center implemented one 60-minute educational training session. The study found a 23% increase in staff perceptions of collaboration and a 35% increase in staff perceptions of communication. Although the setting was different and only one 60-minute session was conducted, the outcome was consistent with this project: TeamSTEPPS training significantly improved team members' perceptions of teamwork, as determined using the T-TPQ.

Similar to the current project, Obenrader et al. (2019) conducted a comparative trial using the T-TPQ survey, in which they implemented TeamSTEPPS in the emergency department of a small community hospital rather than a primary care clinic. The outcome, however, was consistent: TeamSTEPPS training improved team members' perceptions of teamwork, as measured by the T-TPQ.

Limitations

This quality improvement project had some limitations. First, the survey's sample size was relatively small, and the results might not accurately reflect the views of the target population. Despite this limitation, the study showed the value of evaluating staff members' teamwork knowledge, abilities, and attitudes to understand the team's effectiveness better.

Because only Likert scale items were used, adding open-ended questions could have enlightened the data and helped researchers better understand how people perceive teamwork. Another limitation was that social desirability bias affected the survey's

findings. Perceptions are subjective and open to individual interpretation, and individuals can exaggerate or understate perceptions of teamwork depending on the situation.

The allotted time for training constituted another significant limitation. The intervention was designed for a one-hour semi-casual "lunch and learn" meeting. Because some patient visits lasted longer than intended, it was sometimes difficult to comprehensively cover all the necessary content with only a one-hour training period or less. Training time possibly affected knowledge retention and translating TeamSTEPPS principles into practice. However, despite the 60-minute intervention (with additional educational materials such as follow-up emails and supplementary published materials from the TeamSTEPPS website), there was a substantial overall advance in the staff's perception of teamwork and collaboration.

Conclusions

To offer effective and safe patient care, modern healthcare is delivered by interdisciplinary, distributed healthcare teams that rely on effective teamwork and communication. Patients obtain better care as a result of teamwork, staff members are more pleased with their jobs, and patient safety is improved. These benefits of effective teamwork boost productivity while also promoting a more positive and healthier workplace.

The TeamSTEPPS program increased awareness and provided tools for primary care staff to identify communication and teamwork gaps. Simultaneously, the program provided the tools necessary to overcome those deficiencies. This quality improvement project found that the TeamSTEPPS program was beneficial. Staff perceptions of teamwork and communication improved as a result of the program.

Healthcare organizations are encouraged to deliver great patient care by cultivating a broad team-based culture in which distinctive values and concepts are shared and openly expressed among team members. A variety of positions and circumstances can benefit from effective communication, feedback, and conflict resolution. Therefore, once developed and learned, these can impact both the climate of an organization and an individual (Cooke & Valentine, 2021).

The results of this project supported the TeamSTEPPS concept. This well-validated program aims to improve staff perceptions of teamwork and collaboration in primary care. Improving communication, collaboration, and teamwork is critical for a multidisciplinary team. Future research is essential to provide tangible solutions to enhance teamwork skills and determine the direct effects on patient outcomes.

Future Work

There are multiple paths that future work can take when integrating the TeamSTEPPS program. First, TeamSTEPPS research may continue to prioritize the development of research-supported approaches that encourage a culture of patient safety and examine how teamwork affects patient outcomes and overall quality of care. Next, the effects of TeamSTEPPS on organizational culture and team dynamics should be investigated. Teamwork interventions are valuable methods of improving teamwork workflows and team performance in both existing and new teams. However, to be practical, collaboration training must be accompanied by organizational activities, process changes, and guidance (Cook & Valentine, 2021). Organizations should invest in learning how to work well as teams to improve outcomes, increase staff retention, and increase recruitment across all disciplines.

The TeamSTEPPS program equips healthcare professionals and administrative staff with tools to improve team dynamics by improving communication, leadership, team structure, situation monitoring, and mutual support (Padhi et al., 2020). This training may affect patient outcomes in the future, but more research is needed to investigate care processes, effectiveness, and patient care indicators. Each TeamSTEPPS tool can be used independently and customized for the practice environment. TeamSTEPPS was proven to effectively increase employees' views of teamwork and collaboration in this small-scale quality improvement initiative. Additional research is needed, however, to demonstrate TeamSTEPPS's long-term success, correlations to clinical outcomes, and adaptability to various high-stakes clinical practice environments (Matzke et al., 2021).

The effectiveness of TeamSTEPPS interventions in specific patient populations and primary care settings should be examined. This project will contribute to ongoing research to establish the effect of TeamSTEPPS training on primary care clinics' staff perceptions of teamwork.

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APPENDIX A: TeamSTEPPS Teamwork Perceptions Questionnaire (T-TPQ)

TeamSTEPPS[®] for Office-Based Care

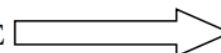


TeamSTEPPS Teamwork Perceptions Questionnaire (T-TPQ)

Instructions: Please complete the following questionnaire by placing a checkmark [✓] in the box that corresponds to your level of agreement from *Strongly Agree* to *Strongly Disagree*. Please answer every question, and select only one response for each question.

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Team Structure						
1.	The skills of staff overlap sufficiently so that work can be shared when necessary.					
2.	Staff are held accountable for their actions.					
3.	Staff within my office share information that enables timely decisionmaking by the direct patient care team.					
4.	My team makes efficient use of resources (e.g., staff supplies, equipment, information).					
5.	Staff understand their roles and responsibilities.					
6.	My team has clearly articulated goals.					
7.	My team operates at a high level of efficiency.					
Leadership						
8.	My supervisor/manager considers staff input when making decisions about patient care.					
9.	My supervisor/manager provides opportunities to discuss the team's performance after an event.					
10.	My supervisor/manager takes time to meet with staff to develop a plan for patient care.					
11.	My supervisor/manager ensures that adequate resources (e.g., staff, supplies, equipment, information) are available.					
12.	My supervisor/manager resolves conflicts successfully.					
13.	My supervisor/manager models appropriate team behavior.					
14.	My supervisor/manager ensures that staff are aware of any situations or changes that may affect patient care.					

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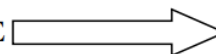


TeamSTEPPS[®] for Office-Based Care



		<div>Strongly Disagree</div> <div>Disagree</div> <div>Neutral</div> <div>Agree</div> <div>Strongly Agree</div>				
Situation Monitoring						
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 meet 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						
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 office.					
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.					

PLEASE CONTINUE TO THE NEXT PAGE



TeamSTEPPS® for Office-Based Care



		Strongly Disagree				
		Disagree				
		Neutral				
		Agree				
		Strongly Agree				
Communication						
29.	Information regarding patient care is explained to patients and their families in lay terms.					
30.	Staff relay relevant information in a timely manner.					
31.	When communicating with patients, staff allow enough time for questions.					
32.	Staff use common terminology when communicating with each other.					
33.	Staff verbally verify information that they receive from one another.					
34.	Staff follow a standardized method of sharing information when handing off patients.					
35.	Staff seek information from all available sources.					

Thank you for your participation!

APPENDIX B: Letter of Support

Letter of Support

May 12, 2022

Dear Dr. Gilbert,

I am currently enrolled in the Prairie View A&M University (PVAMU) College of Nursing Doctor of Nursing Practice (DNP) program. The culminating event of this program is the implementation of a quality improvement (QI) project. I am requesting to conduct my QI project at the healthcare clinics in Dickinson and La Marque, TX.

The identified problem, discussed with the manager at both clinics, is lack of communication between the healthcare providers and staff, which may directly affect patient safety. The purpose of this proposed QI project is to examine the effects of a principle-based team-training program, Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS), designed for health care professionals to improve patient care through better communication. TeamSTEPPS has more than 20 years of research that supports its purpose and results. The targeted population will be healthcare providers and staff employed at the two clinics. The results will focus on the participant's perception of Teamwork and patient satisfaction scores for those that participate in the intervention before and after the intervention. The PVAMU IRB will review the proposed project prior to implementation.

I am requesting complete ownership of the QI project with the ability to utilize editorial and statistical services and dissemination of the project results. The name of the healthcare organization will not be disclosed in any publication.

I am hopeful that you will sign this letter of support to contribute to not only improving communication, engagement, and teamwork within our clinic, but also maintain a patient safety culture and improve patient satisfaction scores. If you have any additional questions or concerns, please do not hesitate to reach out to me.

Sincerely,

Brittaney Shaw, FNP-C

Brittaney Shaw, MSN, APRN, FNP-C

I support the implementation of TeamSTEPPS quality improvement project.

Signature:  Date: 5/16/22

Dr. Louis Gilbert, Senior Medical Director - Houston

APPENDIX C: Institutional Review Board Approval Letter**PRAIRIE VIEW A&M UNIVERSITY**

A Member of the Texas A&M University System

To: **Sharisse Hebert, Ph.D.**, Principal Investigator
Brittaney Shaw, Co-Investigator

From: Tony Maloy, MPA
Associate Director, Export Controls
Office of Research Compliance

Date: October 17, 2022

Re: IRB Protocol #2022-113(QI)
Impact of TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety Training) on Teamwork Perception in a Primary Care Clinic

After review of your application, it has been determined the proposed activities described do not meet the definition of research with human subjects according to federal regulations and IRB approval is not needed.

Thank you for the time and effort put into preparing and submitting your application. If you have any further questions, please call the Office of Research Compliance at (936) 261-1553.

Tony Maloy, MPA
Associate Director, Export Controls
Office of Research Compliance
Office: 936.261.1588
Email: tlmaloy@pvamu.edu

APPENDIX D: Recruitment Email

Recruitment Email

Dear Potential Study Participant:

I am conducting a quality improvement project for my Prairie View A&M University Doctor of Nursing Practice program to evaluate the impact of TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety) training on healthcare professionals and administrative staff's perception of teamwork in two primary care clinics in Galveston County. TeamSTEPPS is an evidence-based teamwork system to improve communication and teamwork perception among health care professionals and administrative staff.

If you agree to participate in this study, we will ask you to do the following things:

- To complete a pre-post survey using the TeamSTEPPS Teamwork Perceptions Questionnaire (T-TPQ).
- Attend three 1-hour “lunch and learn” training sessions that will be held during regular practice hours. Each training session will take place one month apart.
- Those who are unable to attend any of the training sessions will be given a one-on-one training session at your convenience.

If you are interested and choose to participate, please reply to the email to confirm your commitment.

- Further instructions will follow in a separate email with details about the three TeamSTEPPS training sessions and dates, as well as an overview of what to expect and the goals to achieve.
- The second email will also include a link to the T-TPQ pre-test and instructions on how to complete it along with a unique participant identification so that it may be matched for analysis of individual perception change and preserve your confidentiality.
- The data of this study will be kept private. The collected data will be securely stored in a password-protected computer for three years, with only the facilitator having access to the records.

Your decision whether or not to participate will not affect your current or future relations with the organization. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

APPENDIX E: Informed Consent

PRAIRIE VIEW A&M UNIVERSITY OFFICE OF RESEARCH COMPLIANCE CONSENT FORM

TITLE OF STUDY: Impact of TEAMSTEPPS training on Teamwork Perception in a primary care clinic

PROTOCOL NUMBER:

DEAR STUDY PARTICIPANT:

You are invited to participate in a quality improvement project to see how TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety) training impacts teamwork perception in a primary care clinic.

You were selected as a potential participant because you work in a Dickinson or La Marque primary care clinic as a healthcare professional or administrative staff member.

We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Brittaney Shaw, MSN, APRN, FNP-C

Background Information

The purpose of this quality improvement (QI) project is to evaluate the effects of TeamSTEPPS training on healthcare professionals and administrative staff's perception of teamwork in two primary care clinics in Galveston County.

Procedures:

If you agree to participate in this study, we will ask you to do the following things:

To complete a pre-post survey using the TeamSTEPPS Teamwork Perceptions Questionnaire (T-TPQ). Attend three 1-hour training sessions that will be held during regular practice hours. Each training session will take place one month apart, using the TeamSTEPPS for office-based curriculum.

Risks and Benefits of participating in the Study

The risk is no greater than those encountered in everyday life.... Normal risk level

PRAIRIE VIEW A&M UNIVERSITY
OFFICE OF RESEARCH COMPLIANCE
CONSENT FORM

The benefits to participation are:

The TeamSTEPPS training initiative will improve teamwork and communication by providing staff with the knowledge, resources, and tools they need to improve care quality, patient safety, and employee engagement.

Compensation:

Participants will not be compensated for participation in this study.

Confidentiality:

You will be assigned a code number that is unique to this study. The records of this study will be kept private. In all reports resulting from this study, we will not include any information that will make it possible to identify you as a participant. Research records will be stored securely and only researcher will have access to the records.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Prairie View A&M University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is: Brittaney Shaw, MSN, APRN, FNP-C

You may ask any questions you have now. If you have questions later, **you are encouraged** to contact the Principal Investigator at 979-248-1031, bpinson@pvamu.edu.

Committee Chair: Dr. Sharisse Hebert, (713) 797-7050, sahebert@pvamu.edu

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact Tony Maloy, Associate Director of Research Compliance at (tlmaloy@pvamu.edu or researchcompliance@pvamu.edu) in the Office for Research and Innovation, P.O. Box 519; MS 2800 Prairie View, Texas 77446 Phone 936.261.1588

You will be given a copy of this information to keep for your records.

PRAIRIE VIEW A&M UNIVERSITY
OFFICE OF RESEARCH COMPLIANCE
CONSENT FORM

The benefits to participation are:

The TeamSTEPPS training initiative will improve teamwork and communication by providing staff with the knowledge, resources, and tools they need to improve care quality, patient safety, and employee engagement.

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You will be given a copy of this information to keep for your records.

PRAIRIE VIEW A&M UNIVERSITY
OFFICE OF RESEARCH COMPLIANCE
CONSENT FORM

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature: _____ Date: _____

Signature of parent or guardian: _____ Date: _____
(If minors are involved)

Signature of Investigator: _____ Date: _____

Attendance Sheets

Dickinson Training Sessions

[illegible]

APPENDIX G: Thinking About Your Office-Based Team/Video Reflections Handout

Thinking about Your Primary Care Office-Based Team

Directions: Take 2 or 3 minutes to respond to the following questions about your own primary care office-based team.

1. List the members of your primary care office-based team by position title.

- a. Who fills the role of physician? _____
- b. Who fills the role of clinician? _____
- c. Who fills the role of clinical support staff? _____
- d. Who fills the role of receptionist/administrative staff? _____
- e. Who fills the role of ancillary support staff? _____
- f. What are the other roles in your team and who fills them? _____

2. When do members of your team interact? How frequently?

3. How does your team exchange critical patient information? What is the quality of that information exchange? Do team members have enough information to do their jobs and to ensure patient safety?

4. What changes might your team consider to improve its exchange of patient information?

VIDEO REFLECTIONS

Directions

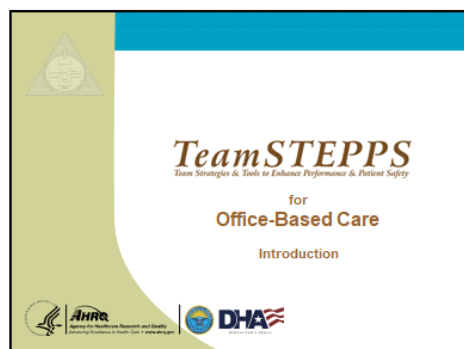
As you view the video, make a note of your thoughts and observations. What problems do you see occurring? Where do you see breakdowns in the process of providing quality patient care? How could the breakdowns have been avoided?

As you identify breakdowns, consider for each whether it falls under the TeamSTEPPS component of leadership, communication, situation monitoring, or mutual support and place a check (✓) under the appropriate column.

Problem or Breakdown You Observe	Leadership	Communication	Situation Monitoring	Mutual Support
1.				
2.				
3.				
4.				
5.				

APPENDIX H: TeamSTEPPS Introduction and Team Structure PowerPoint Slides

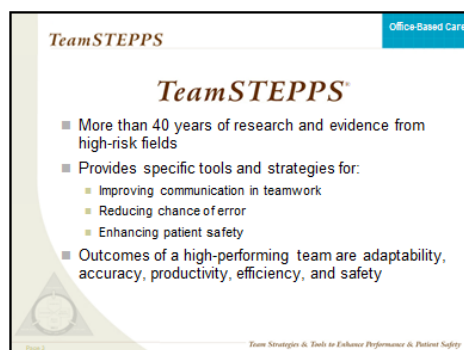
TeamSTEPPS



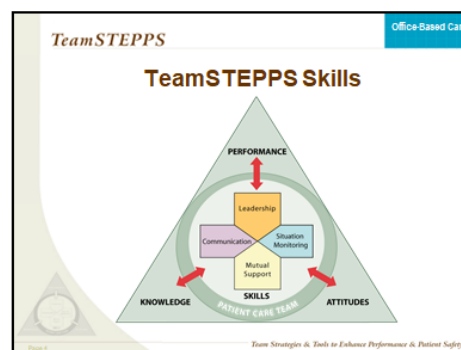
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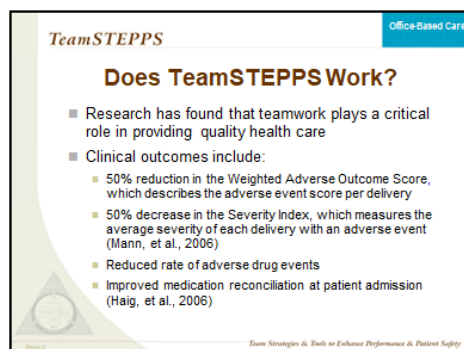
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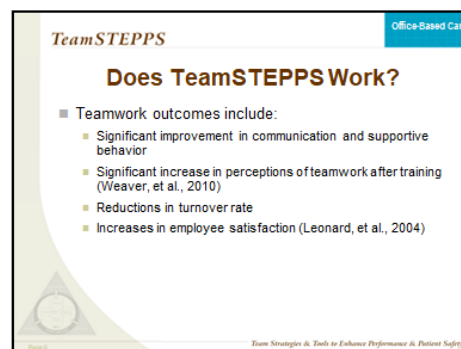
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6

TeamSTEPPS

TeamSTEPPS Office-Based Care

Office Environment

- Do your patients have any idea how chaotic the office really is?
- How would they know?
- What would they hear or see?
- If you could describe the office in one word, what would it be?
- If your patients could describe the office in one word, what would it be?
- If someone asked you to explain a typical day, what would you say?
- If patients described a typical visit, what would they say?



Page 7 Team Strategies & Tools to Enhance Performance & Patient Safety

7

TeamSTEPPS Office-Based Care

Office Environment

- On the surface, the office environment can and should appear calm and orderly to patients
 - Like a duck – calm appearing above the water while chaos churns below
- Office
 - Does not conform to a pattern of work
 - Has many components working together on multiple tasks simultaneously
 - Treats numerous patients simultaneously

Page 8 Team Strategies & Tools to Enhance Performance & Patient Safety

8

TeamSTEPPS Office-Based Care

Team-Building Exercise: Paper Chains



EXERCISE

Page 9 Team Strategies & Tools to Enhance Performance & Patient Safety

9

TeamSTEPPS Office-Based Care

Why Does Teamwork Matter in Office-Based Care?

- Better continuity of care, access to care, and patient satisfaction (Stevenson, et al., 2001)
- Higher patient-perceived quality of care (Campbell, et al., 2001)
- Superior care for diabetes patients (Bower, et al., 2003)

Page 10 Team Strategies & Tools to Enhance Performance & Patient Safety

10

TeamSTEPPS Office-Based Care

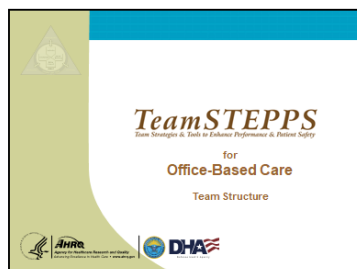
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Page 11 Team Strategies & Tools to Enhance Performance & Patient Safety

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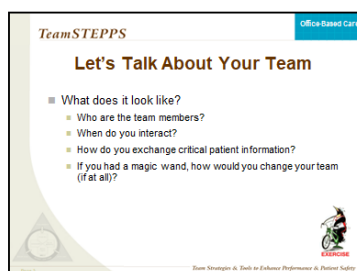
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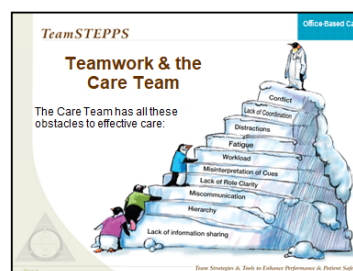
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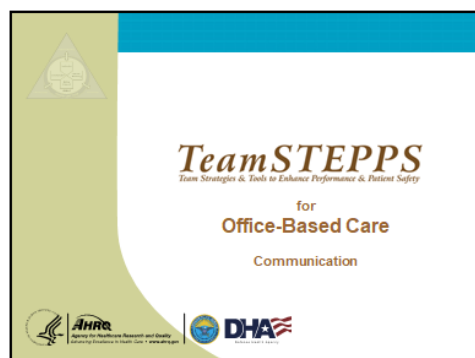
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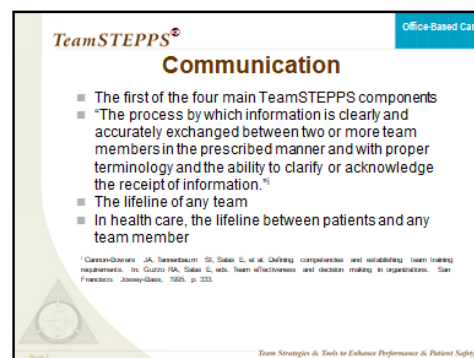
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APPENDIX I: TeamSTEPPS Communication and Leading Teams PowerPoint Slides

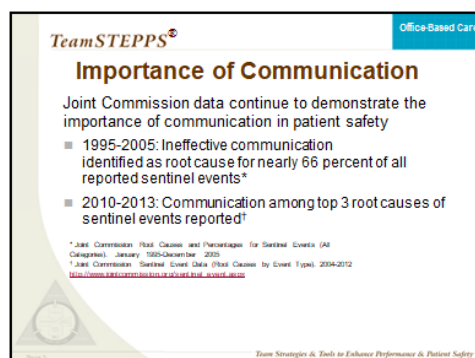
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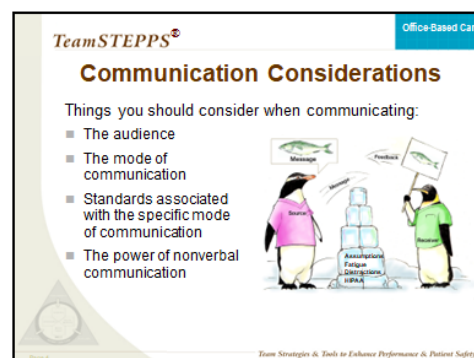
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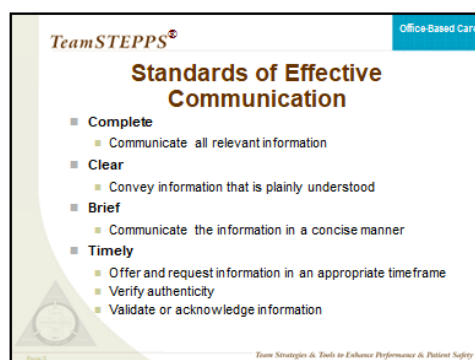
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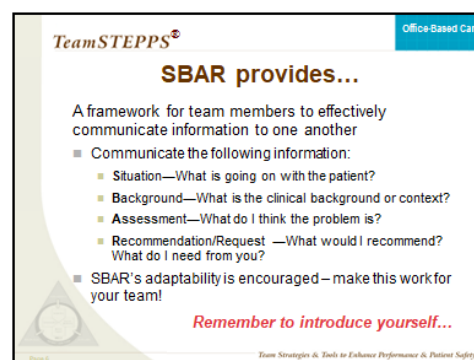
3



4



5




6

TeamSTEPPS® Office-Based Care

Handoff

- The transfer of information (along with authority and responsibility) during transitions in patient care
- It includes an opportunity to ask questions, clarify, and confirm
- Both authority and responsibility are transferred



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7

TeamSTEPPS® Office-Based Care

Handoff

A proper handoff includes the following components:

- Responsibility: Person is aware of assuming responsibility
- Accountability: You are accountable until both parties are aware of the transfer
- Uncertainty: Clear up all ambiguity before the transfer is complete
- Communicate verbally
- Acknowledged: Ensure that the handoff is understood and accepted
- Opportunity: Evaluate the situation for both safety and quality



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8

TeamSTEPPS® Office-Based Care


Handoff Exercise

Develop a handoff checklist based upon needs of your particular office:

- How is your team unique?
- Keep in mind core components
- Share your handoff checklist with the rest of your team
- Discuss how it could be used in your practice

Handoff Checklist

- ☐ Responsibility
- ☐ Accountability
- ☐ Uncertainty
- ☐ Communicate Verbally
- ☐ Acknowledged
- ☐ Opportunity




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9

TeamSTEPPS® Office-Based Care

Check-Back is...

A closed-loop communication strategy used to verify and validate information exchanged



Page 10 Team Strategies & Tools to Enhance Performance & Patient Safety

10

TeamSTEPPS® Office-Based Care

Check-Back Technique Example


A team member was asked by a provider to:

"Administer the influenza vaccine to Mrs. Green who is in Room 6."

"So you want me to give Mrs. Green, who is in Room 6, an influenza vaccine?"

"Yes, that is correct."

"O.K., I will prepare the vaccine."



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11

TeamSTEPPS® Office-Based Care

Communication in the Medical Office



Let's watch this office demonstrate proper team communication.



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12

TeamSTEPPS® Office-Based Care

Review of the Video

Now that you have watched the video, think about what went well in this version of the scenario. In particular:

- Was proper communication demonstrated?
- Was this strategy effective? Why or why not?
- Did you see any other opportunities for better communication?
- Have you encountered situations similar to this with your team? If so, how did you overcome it?

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13

TeamSTEPPS® Office-Based Care

Communication Exercise

Think about your office team:

- What do you think are the opportunities to improve communication in your office?
- If you had a magic wand what strategies would you use to overcome communication breakdowns?



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14

TeamSTEPPS® Office-Based Care

Front Office Scenario

For some unknown reason the electronic health records system was not working and the staff had to write paper notes. Alice had an appointment for followup of labs and x rays. Since they could not access the diagnostic data, the provider asked the administrative assistant to call both the lab and the radiology service to get the results by phone. The administrative assistant called and gave the situation, background, and assessment, and requested the needed information. This method of communication expedited the transfer of information from the radiology technician to the administrative assistant. The provider could then see Alice on time and discuss her lab and x ray results.

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15

TeamSTEPPS® Office-Based Care

Discussion: Front Office Scenario

Reflecting on what took place in the scenario, did you pick up the use of SBAR?

- You should have noted that the administrative assistant called and explained the situation, background, and assessment, and requested the needed information
- As with all the other TeamSTEPPS concepts, good communication applies to everyone within the office
- Remember, teamwork is everyone's responsibility

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16

TeamSTEPPS® Office-Based Care

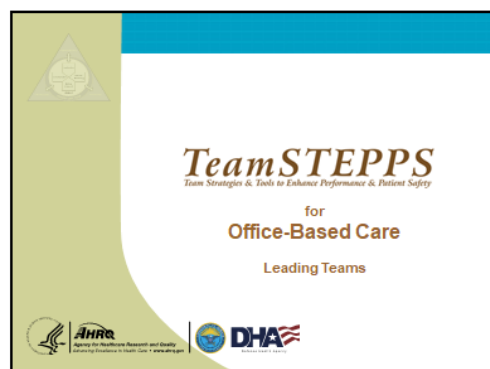
Tools & Strategies Summary

BARRIERS	TOOLS and STRATEGIES	OUTCOMES
<ul style="list-style-type: none"> ■ Inconsistency in Team Membership ■ Lack of Time ■ Lack of Information Sharing ■ Hierarchy ■ Defensiveness ■ Conventional Thinking ■ Complacency ■ Varying Communication Styles ■ Conflict ■ Lack of Coordination and Followup With Coworkers ■ Distractions ■ Fatigue ■ Workload ■ Misinterpretation of Cues ■ Lack of Role Clarity 	<p>Communication</p> <ul style="list-style-type: none"> • SBAR • Call-Out • Check-Back • Handoff 	<ul style="list-style-type: none"> ■ Shared Mental Model ■ Adaptability ■ Team Orientation ■ Mutual Trust ■ Team Performance ■ Patient Safety!!

Page 17 Team Strategies & Tools to Enhance Performance & Patient Safety

17

TeamSTEPPS



1

TeamSTEPPS Office-Based Care

Leading Teams

- Definitions of leadership center on the concept of influence:
 - "A process whereby an individual organizes and influences a group of individuals to achieve a common goal" (Northouse, 2007).
- Leaders influence team effectiveness by:
 - Facilitating team actions
 - Ensuring that teams have necessary resources
 - Ensuring that roles and tasks are understood
 - Being knowledgeable of team members' skills and expertise

Page 2 Team Strategies & Tools to Enhance Performance & Patient Safety

2

TeamSTEPPS Office-Based Care

Characteristics of Effective Leadership

- The primary leadership role generally is held by the primary care provider
- A second leadership role may be that of administrative personnel
- Shared leadership: a partnership where two or more people share power
- Characteristics of effective leadership:
 - Role modeling and shaping teamwork through open sharing of information
 - Constructive and timely feedback
 - Facilitation of briefs, huddles, debriefs, and conflict resolution

Page 3 Team Strategies & Tools to Enhance Performance & Patient Safety

3

TeamSTEPPS Office-Based Care

Leadership Strategies

Three critical events:

- Plan – Briefs
- Problem solve – Huddles
- Improve over time – Debriefs

Leaders are responsible to assemble the team and facilitate team events

But remember...

Anyone can request a brief, huddle, or debrief

Page 4 Team Strategies & Tools to Enhance Performance & Patient Safety

4

TeamSTEPPS Office-Based Care

Briefs

- Briefs are held for planning purposes
- The following information should be discussed in a brief:
 - Team membership and roles and who is the designated leader
 - Clinical status of the team's patients
 - Team goals, pitfalls, and barriers
 - What is accomplished
 - Issues affecting team operations

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5

TeamSTEPPS Office-Based Care

Briefing Checklist

- Use briefing checklist to plan and manage your briefs
- Include the following:
 - Clarify who will lead the team
 - Open lines of communication among team members
 - Set the tone for the upcoming slate of patients
 - Establish the protocols, responsibilities, and expected behaviors
 - Prepare the team for the flow of the day
 - Specify expectations

TOPIC	
Who is on your team today?	<input checked="" type="checkbox"/>
All members understand and agree upon goals?	<input checked="" type="checkbox"/>
Roles and responsibilities understood?	<input checked="" type="checkbox"/>
Staff availability?	<input checked="" type="checkbox"/>
Workload?	<input checked="" type="checkbox"/>
Available resources?	<input checked="" type="checkbox"/>
Review of the day's patients?	<input checked="" type="checkbox"/>

Page 6 Team Strategies & Tools to Enhance Performance & Patient Safety


6

TeamSTEPPS

TeamSTEPPS Office-Based Care

Huddle

- Held for problem-solving purposes
- Quick, reactive, touch-base meetings to regain situation awareness
- Allows team members to:
 - Discuss critical issues and emerging events
 - Anticipate outcomes and likely contingencies
 - Assign resources
 - Express concerns




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7

TeamSTEPPS Office-Based Care

Use a Huddle To Change the Plan

- Huddles provide an opportunity to informally monitor situations
- With a huddle, the leader changes the plan and shares information with the team
- It is an important tool for monitoring and updating the team
- What are some examples of when a huddle would be appropriate in your practice?




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8

TeamSTEPPS Office-Based Care

Debrief

- Short, informal information exchange used as a process improvement tool
- Occurs after an event or shift
- Designed to improve teamwork skills
- Actions and outcomes are discussed
- Can include:
 - An accurate reconstruction of key events
 - Analysis of what worked or did not work and why
 - What should be done differently next time
 - Recognition of good team contributions or catches



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9

TeamSTEPPS Office-Based Care

Debrief Checklist

- Debrief checklist helps ensure that all information is discussed
- Assess each of the following:
 - Team membership
 - Situation awareness
 - Mutual support
 - Communication

"What are our takeaways or lessons learned from this experience?"

TOPIC	
Communication clear?	<input checked="" type="checkbox"/>
Situation awareness maintained?	<input checked="" type="checkbox"/>
Workload distribution?	<input checked="" type="checkbox"/>
Did we ask for or offer assistance?	<input checked="" type="checkbox"/>
Were errors made or avoided?	<input checked="" type="checkbox"/>
What went well, what should change, what can improve?	<input checked="" type="checkbox"/>

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10

TeamSTEPPS Office-Based Care

Leadership in the Medical Office



Let's watch the first team demonstrate proper team leadership.




Page 11 Team Strategies & Tools to Enhance Performance & Patient Safety

11

TeamSTEPPS Office-Based Care

Reflect and Apply to Your Office

- How does that video compare to the scenario seen in the first lesson?
- Ask yourself:
 - How is leadership demonstrated in this video?
 - Was this strategy effective? Why was it effective or not effective?
 - Did you see any other opportunities for leadership?
 - Have you encountered situations similar to these on your team? What strategy would you use to overcome them?



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TeamSTEPPS

TeamSTEPPS Office-Based Care

Front Office Scenario

Jack, an older man who just had cataract surgery, cannot drive. Jack was taken to the clinic by his son for a followup on his blood pressure and diabetes. While Jack was in the examination room, his son was called away on an emergency. When Jack finished his appointment and found that his son was not waiting for him, he was very upset. The front desk administrator realized that Jack had no way to get home and called a quick huddle with the nurse and the billing specialist. Together they decided to arrange for a taxi to take Jack home. The front desk administrator then called Jack after he arrived home to make sure all was well.

Can you think of another way the situation could have been resolved?

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13

TeamSTEPPS Office-Based Care

Leadership

BARRIERS	TOOLS and STRATEGIES	OUTCOMES
<ul style="list-style-type: none"> ■ Hierarchical Culture ■ Lack of Resources or Information ■ Ineffective Communication ■ Conflict 	<ul style="list-style-type: none"> Brief Huddle Debrief 	<ul style="list-style-type: none"> ■ Shared Mental Model ■ Adaptability ■ Team Orientation ■ Mutual Trust

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14

TeamSTEPPS Office-Based Care

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Appendix J: When and Why to Use a Huddle Handout

WHEN AND WHY TO USE A HUDDLE

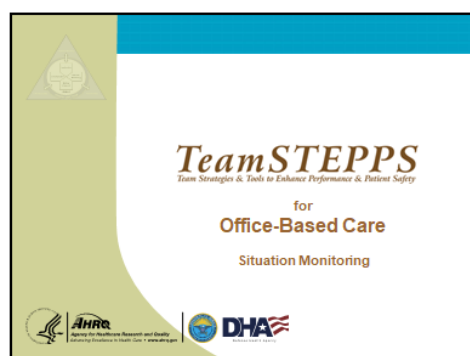
Questions

Think about a situation in your medical office in which the team leader should have called a huddle, but did not. What were the results? Be prepared to share your example with the larger group.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. On the left side, there is a vertical margin line, creating a narrow left margin. The paper appears to be from a notebook or a standard ruled sheet.

Appendix K: TeamSTEPPS Situational Monitoring and Mutual Support PowerPoint Slides

TeamSTEPPS



1

TeamSTEPPS Office-Based Care

Situation Monitoring

- Process of *actively scanning* behaviors and actions to assess elements of the situation or environment
- Enables team members to identify the potential issues or minor deviations
- Benefits:
 - Fosters mutual respect and team accountability
 - Provides safety net for team and patient
 - Includes cross-monitoring

Remember, engage the patient whenever possible!

Team Strategies & Tools to Enhance Performance & Patient Safety

2

TeamSTEPPS Office-Based Care

Cross-Monitoring

- A process of ongoing monitoring to recognize risk or unfolding error
- An opportunity to interrupt or correct an action or event before there is harm or injury to the patient
- "Watching each other's backs"
- Providing feedback to ensure the procedures are being performed appropriately

"Mutual performance monitoring has been shown to be an important team competency."

Michynis RM, Salas L. Measuring and managing for team performance: emerging principles from complex environments. In: Giacchi RM, Salas L, eds. Team effectiveness and decision making in organizations. San Francisco: Jossey-Bass, 1995. p. 3-45.

Team Strategies & Tools to Enhance Performance & Patient Safety

3

TeamSTEPPS Office-Based Care

STEP

Steps to monitor the situation

- S** Status of the Patient
- T** Team Members
- E** Environment
- P** Progress Toward Goal

Team Strategies & Tools to Enhance Performance & Patient Safety

4

TeamSTEPPS Office-Based Care

Situation Monitoring in the Medical Office

Let's watch the second office team demonstrate proper situation monitoring.

Team Strategies & Tools to Enhance Performance & Patient Safety

5

TeamSTEPPS Office-Based Care

Situation Monitoring Exercise

- How does that video compare to the scenario seen in the first lesson?
- Ask yourself:
 - Was situation monitoring demonstrated in this video?
 - Was this strategy effective? Why was it effective or not effective?
 - Did you see any other opportunities for situation monitoring?
 - Have you encountered situations similar to this in your team? Have you encountered barriers to proper situation monitoring?

EXERCISE

Team Strategies & Tools to Enhance Performance & Patient Safety


6

TeamSTEPPS

TeamSTEPPS Office-Based Care

Situation Monitoring Exercise

- Think about your daily office routine.
- Have you encountered barriers to situation monitoring?
- What strategy would you use to overcome them?



EXERCISE

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7

TeamSTEPPS Office-Based Care

Front Office Scenario

Susan was due for a mammogram and the provider ordered it. Upon arrival at the mammography service, Susan was told that she would have to pay for the mammogram, since her insurance company did not cover it. Confused, Susan returned to the clinic and told the administrative assistant that she did not have the money to pay for this. She was especially upset because her mother was a breast cancer survivor.

The administrative assistant assessed (1) the status of the situation (that a billing specialist was needed); (2), the environment (the patient was upset); and (3) the progress toward the goal (patient was being denied access). The billing specialist then called the insurer and clarified that the insurer had the wrong dates and Susan's mammogram was due. The insurer realized their error and covered the mammogram.


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TeamSTEPPS Office-Based Care

Establish a Shared Mental Model

- An organized knowledge structure of relevant facts and relationships about a task or situation that are commonly held by team members.
 - Team effectiveness will improve if team members have a shared understanding of the situation.
 - In health care, if the wrong plan is developed, potentially all actions that follow are wrong, and the patient and caregiver are at risk.



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TeamSTEPPS Office-Based Care

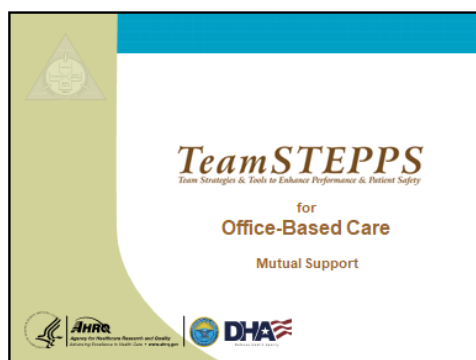
Situation Monitoring

BARRIERS	TOOLS and STRATEGIES	OUTCOMES
<ul style="list-style-type: none"> ■ Hierarchical Culture ■ Lack of Resources or Information ■ Ineffective Communication ■ Conflict ■ Time ■ Distractions ■ Workload ■ Fatigue ■ Misinterpretation of Data ■ Failure To Share Information 	<ul style="list-style-type: none"> ■ Brief ■ Huddle ■ Debrief ■ STEP ■ Cross-Monitoring 	<ul style="list-style-type: none"> ■ Situation Awareness ■ Shared Mental Model ■ Adaptability ■ Team Orientation ■ Mutual Trust

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10

TeamSTEPPS



1

TeamSTEPPS® Office-Based Care

Mutual Support

- The primary leadership role generally is held by the provider
- Mutual support is the essence of teamwork:
 - Includes the ability to anticipate the needs of other team members through knowledge of their tasks and responsibilities
 - Provides a safety net for work overload situations that may reduce effectiveness and increase the risk of error

What types of behaviors might constitute mutual support or team backup behavior?

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2

TeamSTEPPS® Office-Based Care

Task Assistance

- Team members foster a climate in which it is expected that assistance will be actively sought and offered as a method for reducing the occurrence of error.
- Some people have been conditioned to avoid asking for help

In support of patient safety, task assistance is expected.

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3

TeamSTEPPS® Office-Based Care

Task Assistance Examples

- Task assistance may involve:
 - Asking for assistance when overwhelmed or unsure
 - Helping team members perform their tasks
 - Shifting workload by redistributing tasks to other team members
 - Delaying or rerouting work so the overburdened member can recover
 - Filling in for overburdened team members
- Assistance should be actively offered and given whenever there is concern for patient safety related to workload

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4

TeamSTEPPS® Office-Based Care

What Is Feedback?

- Any team member can give feedback at any time
- Feedback:
 - Fosters improvement in work performance
 - Meets the team's and individual's need for growth
 - Promotes better working relationships

"Feedback is the giving, seeking, and receiving of performance-related information among the members of a team" (Dickinson and McIntyre, 1997).

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5

TeamSTEPPS® Office-Based Care

Types of Feedback

- Can be formal and informal
- Constructive feedback:
 - Is considerate and task specific and focuses attention on performance and away from the individual (Baron, 1988)
 - Is provided by all team members
- Evaluative feedback:
 - Helps the individual by comparing behavior to standards or to the individual's own past performance (London, et al., 1999)
 - Most often used by an individual in a coaching or mentoring role

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6

TeamSTEPPS

TeamSTEPPS® Office-Based Care

Characteristics of Effective Feedback

- Effective feedback is:
 - Timely
 - Respectful
 - Specific
 - Directed toward improvement
 - Helps prevent the same problem from occurring in the future
 - Considerate

Feedback is where the learning occurs.

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7

TeamSTEPPS® Office-Based Care

When To Give Feedback

- You must give thought to when and where to give feedback to an individual
- Feedback must be timely enough for an individual to be able to readily associate it with the behavior
- Negative feedback should never be expressed to individuals in front of other team members

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8

TeamSTEPPS® Office-Based Care

Feedback Examples

- Cautioning team members about potentially unsafe situations:
 - "The asthma patient appears to be breathing harder after the nebulizer treatment. Do you think we should address this by informing Dr. Smith?"
- Providing necessary information:
 - "Did you know that the patient saw her cardiologist last week? There's no report in the chart. I'll have her office fax over the report."
- Providing encouragement:
 - The physician praising a new clinical support person for doing a good job

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TeamSTEPPS® Office-Based Care

Advocacy and Assertion

- Advocacy focuses on the patient and is invoked when team members' viewpoints don't coincide with that of a decisionmaker
- Failure to employ advocacy and assertion is a primary contributor to the clinical errors found in malpractice cases and sentinel events

Assert a corrective action in a firm and respectful manner.



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10

TeamSTEPPS® Office-Based Care

The Assertive Statement

- Respect and support authority while clearly asserting concerns and suggestions
- Use an assertive statement that is nonthreatening and ensures that critical information is addressed
- Five steps:
 - Make an opening
 - State your concern
 - Explain the problem
 - Offer a solution
 - Reach an agreement

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TeamSTEPPS® Office-Based Care

Assertive Statement Examples

- Consider a scenario in which a nurse witnesses a physician treating a receptionist rudely in front of a patient
- Following the five steps:
 - Open the discussion: "I'd like to share my thoughts on your discussion with the receptionist."
 - State the concern: "I am concerned that what you said and how you said it sounded rude."
 - State the problem, real or perceived: "And if I considered it rude, the patient may have as well. And that is not the type of behavior we want patients to see."
 - Offer a solution: "In the future, if you have feedback to give the receptionist, please do so privately in a constructive and respectful manner."
 - Obtain an agreement: "Can we agree that would be a better way to handle such situations?"

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TeamSTEPPS® Office-Based Care

Conflict Resolution Options

Information Conflict (We have different information!)

Personal Conflict (Hostile and harassing behavior)

Two-Challenge Rule

DESC script

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TeamSTEPPS® Office-Based Care

Two-Challenge Rule

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TeamSTEPPS® Office-Based Care

Two-Challenge Rule

Invoked when an initial assertion is ignored:

- It is your responsibility to assertively voice your concern at least two times to ensure that it has been heard
- If the outcome is still not acceptable:
 - Take a stronger course of action
 - Use chain of command
- The member being challenged must acknowledge
- Think about the following questions:
 - Do you feel team members can stop the line now?
 - Do you feel patients and families can stop the line?

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15

TeamSTEPPS® Office-Based Care

Please Use CUS Words but *only* when appropriate!

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TeamSTEPPS® Office-Based Care

Conflict Resolution DESC Script

A constructive approach for managing and resolving conflict:

- D** — Describe the specific situation
- E** — Express your concerns about the action
- S** — Suggest other alternatives
- C** — Consequences should be stated

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17

TeamSTEPPS® Office-Based Care

DESC-It

Let's "DESC-It!"

- Have timely discussion
- Work on "win-win"
- Frame problems in terms of your own experience
- Use "I" statements to minimize defensiveness
- Avoid blaming statements
- Critique is not criticism
- Focus on what is right, not who is right

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18


TeamSTEPPS

TeamSTEPPS® Office-Based Care

Ineffective Approaches to Conflict Resolution

Some commonly used—but ineffective—methods are:

- **Compromise:** both parties settle for less
- **Avoidance:** issues are ignored or sidestepped
- **Accommodation:** focus is on preserving relationships
- **Dominance:** conflicts are managed through directives for change



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TeamSTEPPS® Office-Based Care

Collaboration

- Achieves a mutually satisfying solution resulting in the best outcome
 - All Win! Patient Care Team (team members, the team, and the patient)
 - Includes commitment to a common mission
- Meets goals without compromising relationships


True collaboration is a process, not an event.

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TeamSTEPPS® Office-Based Care

Mutual Support in the Medical Office



Let's watch the third office demonstrate proper team mutual support.




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TeamSTEPPS® Office-Based Care

Reflect and Apply to Your Office

- Ask yourself:
 - Was mutual support demonstrated in this video?
 - Was this strategy effective? Why was it effective or not effective?
 - Did you see any other opportunities for mutual support in this video?
- Think about your team and the mutual support problems your team could encounter



EXERCISE

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TeamSTEPPS® Office-Based Care

Front Office Scenario

Your clinic has a rule that patients will still be seen if they arrive within a 30-minute window of their appointment. Greg arrives 5 minutes past the window and sincerely apologizes for being late. The administrative assistant tells Greg that he will have to reschedule the appointment. The patient advocate overhears this and pulls the administrative assistant aside. She agrees that Greg should be rescheduled according to the rules but explains that he lives very far away and relies on friends and family to transport him to doctor's visits. Thus, all efforts should be made to see him today. The administrative assistant appreciates this information and the fact that the advocate pulled him aside to tell him. He ensures that Greg will be seen today.

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TeamSTEPPS® Office-Based Care

Mutual Support

BARRIERS	TOOLS and STRATEGIES	OUTCOMES
<ul style="list-style-type: none"> ■ Hierarchical Culture ■ Lack of Resources or Information ■ Ineffective Communication ■ Conflict ■ Time ■ Distractions ■ Workload ■ Fatigue ■ Misinterpretation of Data ■ Failure To Share Information ■ Defensiveness ■ Conventional Thinking 	<ul style="list-style-type: none"> ■ Brief ■ Huddle ■ Debrief ■ STEP ■ Cross-Monitoring ■ Feedback ■ Advocacy and Assertion ■ Two-Challenge Rule ■ CUS ■ DESC Script ■ Collaboration 	<ul style="list-style-type: none"> ■ Shared Mental Model ■ Adaptability ■ Team Orientation ■ Mutual Trust ■ Team Performance ■ Patient Safety!

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Appendix L: The DESC Communication Tool

TeamSTEPPS®

Essentials

DESC Script

A constructive approach for managing and resolving conflict:

- **D** — Describe the specific situation or behavior; provide concrete data
- **E** — Express how the situation makes you feel/what your concerns are
- **S** — Suggest other alternatives and seek agreement
- **C** — Consequences should be stated in terms of impact on established team goals; strive for consensus



Team Strategies & Tools to Enhance Performance & Patient Safety

CURRICULUM VITAE

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EDUCATION

- BSN. Nursing, Prairie View A&M University, Prairie View, Texas, 2012
- MSN. Nursing, Prairie View A&M University, Prairie View, Texas, 2016
- DNP. Nursing, Prairie View A&M University, Prairie View, Texas, 2023

WORK EXPERIENCE

- Company: AFC Urgent Care
Position: Family Nurse Practitioner, January 2023 – Present
Job: Provides health promotion as well as the evaluation, diagnosis, and management of patient problems.
- Company: Village Medical
Position: Family Nurse Practitioner, June 2021 - Present
Job: Diagnose health conditions and illnesses, propose treatments for chronic and infectious diseases.
- Company: Chamberlain University
Position: Clinical Instructor, September 2020-September 2022
Job: Supervised students in a clinical environment to give them real-world training and enhance classroom education.
- Company: RediClinic
Position: Family Nurse Practitioner/Clinic Manager, August 2016 – August 2020
Job: Assess, diagnosis, implement and treat acutely ill, and chronic patients. Provided thorough supervision for day-to-day operations of the facility in accordance with policies.

PROFESSIONAL, TECHNICAL AND WORK-RELATED EXPERIENCE AND SKILLS

Management Skills

Leadership Qualities

EMR systems: Athena, Epic, Experity

Communication Skills

Critical Thinking skills

Problem Solving Skills

Perform minor procedures such as wound care, suture placement/removals, I&Ds, ear lavages, wart removal, venipunctures. Interpret rapid testing, and lab results.