RESEARCH ARTICLE

Improving Team-Based Care in Family Medicine: Lessons Learned from a Practice Transformation Study

Christopher Scuderi, DO,[1] Charles J. Haddad, MD,[1] Lori A. Bilello, PhD, MBA/MHS,[2] Charles F. Lorbeer, PhD, LICSW,[3] Gaelyn Scuderi, MD,[4] & Edward Shahady, MD[5]

[1] University of Florida College of Medicine - Jacksonville, Department of Community Health and Family Medicine
[2] University of Florida College of Medicine - Jacksonville, Department of Medicine
[3] Jacksonville Physicians, Inc., Jacksonville, Florida
[4] Ackerman Cancer Center, Jacksonville, Florida
[5] Diabetes Master Clinician Program Inc., Jacksonville, Florida

Keywords:

Team-Based Care

Family Practice

Practice Transformation

Practice Management

Team-based care is a key element of a successful primary care practice or patient centered medical home (PCMH). However, before practices can transform to PCMHs, they have to transform their staff to assume new roles and develop needed skills in the new practice paradigm. As medical practices move towards developing increased coordination of care and effective population management this focus has changed how offices function and communicate as a group. The objective of this project addressed training 6 primary care practices (physicians and their office staff) on the tenets of team-based care using the Agency Health Care Research and Quality (AHRQ) Primary Care Version of TeamSTEPPS framework. Common challenges in improving team–based care as well as lessons learned from participating in a practice transformation process are shared.

INTRODUCTION

The majority of the work of primary care physicians revolves around the prevention and care of chronic disease. Safety and quality of this care is not possible without an effective office team, strong team communication and efficient office systems. Most of the errors for chronic disease and prevention care are related to errors of omission or the failure to employ indicated tests or act on results of monitoring or testing.[1] Error prevention depends on office systems that produce data identifying gaps in care for the total population with a chronic disease, and systems to remind clinicians and encourage patients to obtain prevention items like mammograms, colonoscopies and chronic disease services like eye and foot exams for diabetes. Only between 40-92% of patients obtain services recommended for the management of diabetes (depending on the individual's insurance coverage).[2] These omissions decrease quality of care and decrease safety by increasing patient mortality and morbidity. Strategies to address these issues such as effective medical practice teams and team communication, has been found to increase patient safety and quality.[1]

CORRESPONDENCE:
Christopher Scuderi, DO | christopher.scuderi@jax.ufl.edu

 Print ISSN: 1877-573X

A current issue that many family medicine physicians face is the risk of burnout. A 2017 survey by Medscape estimated 55% of family medicine physicians are feeling burned out.[3] Often there seems to be one more "click" or task that needs to be done during each patient encounter. The survey also cited that 82% of physicians state they spend greater than 5 hours per week on paperwork and administrative issues.[4] Bodenheimer et al estimated that 24% of a primary care physicians work flow can be done as well by another member of the patient care team.[5] Team-based care is a model that can help identify those areas to reduce physician burden and to assist in making the family medicine staff more active participants in delivering quality care and population management. This is essential as we navigate how to be successful providers in a changing reimbursement environment and the implementation of the Medicare Access and CHIP Reauthorization Act (MACRA). MACRA's Quality Payment Program requires providers to collect and report quality performance indicators to Medicare beginning in 2017.

MATERIALS & METHODS

The objective of this project addressed this quality and safety gap by training 6 primary care practices (physicians and their office staff) on the tenets of team-based care using the Agency Health Care Research and Quality (AHRQ) Primary Care Version of Team STEPPS framework (https://www.ahrq.gov/teamstepps/office-

basedcare/index.html). TeamSTEPPS is an on-line resource with ready-to-use materials and a training curriculum to successfully integrate teamwork principles into all areas of the health care system, including primary care specific tools. It is scientifically rooted in more than 20 years of research and lessons from the application of teamwork principles developed by Department of Defense's Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality. (AHRQ). TeamSTEPPS has incorporated the best practices from this research into a program to improve the quality, safety, and efficiency of health care by improving communication and other teamwork skills. These skills lead to important team outcomes, such as enabling the teams to:

1. Adapt to changing situations;
2. Gave a shared understanding of the care plan;
3. Develop positive attitudes toward and appreciate the benefits of teamwork; and
4. Provide more safe, reliable, and efficient care.

The largest component of the training was focused on building the capacity and confidence of the medical assistants and nurses to maximize their scope of practice. The project leaders had experience working together to improve diabetes care through the use of a diabetes registry. They discovered that improving diabetes quality indicators was more a function of the office staff than the physicians. Many of the quality indicators were dependent on staff behavior, such as inputting test results into the electronic health record, contacting patients for follow-up care, and scheduling referrals when needed. Participating practices ranged from an office with one physician to a medium sized practice with 9 clinicians and were part of a large primary care network of 36 practices. See Table 1 for characteristics of the 6 participating practices including number of providers, geographic location and percent of population enrolled in Medicaid. Participation was totally voluntary and the Medical Director of each participating practice had to make the commitment to allocate the required time for his office staff and clinicians for training and follow-up. These practices were already certified as Level III Patient-Centered Medical Homes through the National Committee for Quality Assurance (NCQA) but felt they all could grow to become more effective Patient-Centered Medical Homes.

Each practice participated in a series of trainings by a TeamSTEPPS certified master trainer who is a physician specializing in diabetes care during a one year period. He met with each practice site (Medical Director, head nurse/lead medical assistant, practice manager) to plan the first session for the whole office team. Each session had some standard activities used in all sessions plus portions that fit each practice needs. The training needs were primarily defined by the medical assistants. This was followed by a two hour mandatory session for all staff. Each practice's staff completed the AHRQ Medical Office Survey on Patient Safety Culture at baseline, midway and at completion of training to determine perceived changes in team based care behavior and quality of care and the results of the survey was used as a teaching tool during the training sessions.

One of the most helpful tools during the study were the TeamSTEPPS training videos. The initial two hour session with the entire office team included a TeamSTEPPS video, a review of the survey results and some basics of TeamSTEPPS followed by small group breakouts. The video discussed the use of team huddles and a debrief process reviewing the effectiveness of the huddle. This session also included some didactic information about huddles and debriefs. Staff and clinicians split into small groups to discuss their response to the video. The small groups were led by medical assistants and physicians were encouraged to listen to staff concerns and suggestions for addressing the concerns. The leader and recorder for the small groups (always members of the staff) then presented what was discussed and recommended. Physicians and other clinicians were asked not to speak until the staff presented their information.

Three months after the initial session, the project leader/trainer met with the Medical Director, head nurse/MA and the practice manager of each practice to discuss what changes they noted and what they would like to discuss at the next two hour session. The breakout sessions and short videos vignettes were the most popular. The next two hour session was conducted similar to the

TABLE 1:

Physician Practice Characteristics

Practice Site	# of Physicians	Physician Extenders	Staff	Location Type	% Medicaid
A	3	3	19	Suburban	11%
B	4	5	25	Urban	38%
C	2	2	10	Suburban	7%
D	4	5	23	Urban	24%
E	3	2	12	Suburban	34%
F	1	1	7	Suburban	39%

first one except the agenda was more staff directed. This session included a TeamSTEPPS video that illustrated a conflict between a staff member and a clinician. This session included some didactic information about conflict definition and resolution. In the last 10 minutes of the training session, the group was asked to evaluate the two-hour session by mentioning one item that was most effective and one item that would change in the teaching session. Following the teaching session, an on-line survey was sent to the attendees asking them to evaluate the session. Small group breakouts received the highest evaluation score because it gave attendees an opportunity to speak compared to the large group setting. Videos were popular because they brought the theory to life by demonstrating how huddles, debriefs and conflict were handled in a clinic setting by actors who portrayed real life situations.

Three months later the project trainer met with the three practice leaders to plan the next session. This session was completely controlled by office staff and clinicians with the trainer being an observer who shared positive aspects observed and suggestions for change.

In total, three team sessions were held with the master trainer with each practice. In addition to employee satisfaction data and monitoring improvements in team based care using the Medical Office Survey on Patient Safety Culture, all attendees offered suggestions on what they thought was effective and not effective. Every office now uses the TeamSTEPPS briefs, huddles and debriefs. Staff feel their opinions are more valued and they are willing to speak out to help solve office problems. Additionally, we asked each Medical Director, practice manager, and lead medical assistant at the end of the study to describe changes in office culture and systems. These best practices and common challenges were shared at a stakeholder meeting held in December 2016 and are provided below:

RESULTS

Best Practices Identified

Daily rounds. Medical Directors in the most successful offices began most days by arriving a few minutes early and walking the premises, greeting each staff member and provider. This practice gave the Medical Director an opportunity to take a pulse on their staff and the facility and assess for pending issues requiring attention. It also allowed the Medical Director to set the tone for the day with a positive hello to each staff member. One Medical Director mentioned that during the morning round in his office he saw one of his best team members crying. She just found out that her dog was hit by a car before work but came to work anyway. The Medical Director sent her home and the team reached out to her with a care package.

Daily huddles. Successful medical assistant-provider partnerships thrived with a daily huddle. The huddle is a small 3-5 minute meeting at the beginning of the day to review the upcoming schedule and anticipate workflow challenges. Patients were identified who would foreseeably need additional time, care, or review of outside medical records to ensure the appointment would be productive and efficient. One physician noted how this practice helped make his most challenging visits (transitional care visits and procedures) more efficient.

Make team meetings more interactive. One office realized the staff felt passive and unengaged during team meetings. This office adjusted meetings to encourage staff involvement. When problems were identified, staff members were asked to present the problem to the group, offer potential solutions, and solicit peer input on creative resolution of issues. Group discussion was used to develop success measures. Staff then presented updates and success-related metrics at subsequent meetings. This office also decided to limit the number of issues addressed to one per division within the office, ensuring focused, thorough improvement of one process at a time. They saw a more unified front in attacking these issues. The staff at this office felt that the meetings were more meaningful to them and became passionate in becoming agents for solutions.

Institute a monthly lunch ritual. Two practices stood out. One office developed a "Lunch and Listen" in which they set aside dedicated time for the Medical Director and Office Manager and a small focus group of staff to hear current concerns and brainstorm solutions. The Medical Director and office manager would listen and acknowledge issues. This interaction leveled power differentials, and fostered comfortable conversation about the status of the workplace. A second office developed an event called "First Monday Lunch." This evolution encouraged staff interaction during a communal lunch hour, and was typically pot-luck, with all participants contributing to the meal. Unlike the "Lunch and Listen," however, discussion of work-related topics was specifically excluded. The office has noticed improved morale and cohesion of staff and providers because of this shared time. The staff felt like they really got to know their Medical Director whom they had worked with for years.

Shadow partners. A disconnect exists in many Family Medicine offices between clerical front office staff and clinical medical assistants. One office paired front office staff with their counterpart medical assistants for a day of job shadowing, to facilitate mutual understanding of job responsibilities and work flow. This exercise of "walking a day in someone else's shoes" has fostered professional respect and workflow improvements between both office divisions. The staff has noticed that each position in the office has its challenges and are more likely to help pitch-in even when it is out of their normal job duties.

Develop protocols to clarify roles. A few of the offices in the study developed protocols for divisions within the office that were prone to disrupt patient throughput. Specific examples included creating late patient and no show policies, and building standing order sets medical assistants can use to support health maintenance activities. These protocols were recognized by the staff as helpful in alleviating the stress of making difficult decisions during challenging patient scenarios (i.e. how to handle the patient who shows up for their appointment 45 minutes late). The staff noticed having policies took the stress off them having to make decisions that may hurt the practice. The medical assistants who had standing protocols for health maintenance felt empowered by their ability to assist in addressing care gaps that they identified during a patient's check in process.

Be willing to call brief "short informative meetings" when necessary to clarify operations. One clinic gracefully overcame an unforeseen challenge when an active alarm threatened disruption of patient care. Office procedures were rapidly aligned by the quick arrangement of a large group meeting. A second clinic exemplified this best practice when a rumor about clinic finances began to cause hard feelings amongst staff. The team came together and addressed the concern in a concise, straightforward manner, resulting in swift improvement in office climate and stifling propagation of misinformation at an early stage.

Set a few measurable overriding goals for the year. These clinics used quality outcome scores and online medical record patient portal sign-up rates as improvement goals for the year. Office staff members were made aware of the goal targets and input was requested from the staff to develop strategies for achievement. Periodic status updates were relayed to the staff to encourage continued focus on targets and to monitor success.

Give immediate positive group feedback for outstanding performers. Public sharing of praise boosted both group and individual morale and inspired others to perform well. Participating offices noted that this practice seemed to encourage employees who were not historically strong performers to sustain positive professional behaviors. Positive feedback was delivered through group e-mails and by verbally recognizing employees during staff meetings.

Debrief after major events. After unanticipated or critical events (e.g. an unstable patient in the office, disagreement among staff members), successful offices held an immediate debrief to discuss what went well and what could be improved. This practice strengthened teamwork by reinforcing roles and empowering members of the team to handle acute clinical scenarios.

Office leadership should be passionate team-builders. The clinic leader may be a physician or a non-physician, but must have a passion for leadership and team building to help the office reach its potential. There has to be a vision of what the clinic can and should be. It is essential that the leadership is able to translate the "why" of why the clinic does what they do. The staff and other providers need to understand what the underlying motivation of the office is. One office recognized how a steady approach from their Medical Director seemed to always be a stabilizing force when challenging times hit.

Common Challenges

Staff turnover. Staff turnover uniformly disrupted positive momentum. Daniel Pink described in his book *Drive* that fairly compensated workers experience job fulfillment when they are provided autonomy, mastery and purpose.[6] Fulfilled staff, in turn, are less likely to seek other employment opportunities. One of the primary intended outcomes of improved office culture, therefore, is a decreased employee turnover and attrition rate.

The "poison pill." Larger offices each identified at least one worker who was obstructive to building team culture and cohesiveness. Participating clinics each reported an inverse relationship between the influence of dysfunctional employees in the workplace and improved office culture: as team cohesiveness improved, negative effects of the dysfunctional employee were minimized. All clinics realized that for challenging employees a written record needed to be kept of all interventions to help this employee succeed. If the situation needed to be escalated it was recommended to have HR assistance on the best way to help with extra training for these employees.

The whirlwind. Chris McChesney, Sean Covey and Jim Huling outline in "The Four Disciplines of Execution" describe the concept of the daily "whirlwind" fast-paced and complex day-to-day operations that prevent organizations from achieving process improvement goals.[7] This constant influx of important but tiresome minutia hampers the ability of a group to address problems because routine tasks take precedent. This book suggests focusing on a "Wildly Important Goal" that supersedes, informs, and inspires the daily grind: a goal developed with group input, regularly assessed at office meetings, with defined metrics to evaluate for progress.

Teamwork requires diligent effort and inclusion of all members. Energy is required to maintain open communication and team unity. Team cohesiveness and enrichment isn't a "set it and forget it" prospect. A spirit of constant striving toward team empowerment must be present to avoid lapses in communication. Leaders must be consistently engaged, constantly adjusting and seeking to optimize processes while facilitating buy-in of team members at all levels in order to develop an enthusiastic sense of purpose in the workplace.

Medical Office Survey Results

Each practice's staff completed the AHRQ Medical Office Survey on Patient Safety Culture at baseline, midway and completion of training to determine perceived changes in team based care behavior and provision of quality care. This survey contains over 50 questions that address medical office personnel's attitudes and beliefs as well as patient care practices. There were 90 people who participated in the medical office survey across 6 practices (26 clinicians, 61 staff, 3 unspecified) resulting in a response rate of 70%. Due to the length of time of the training (across 12-15 months), those who responded to the survey at the different time points may be different due to staffing changes. Some practices saw a significant improvement in certain areas, however, two of the practices had leadership turnover that affected morale and operations and was evident in the survey results for those practices.

The figures on page 16 include results from the first survey and the last survey (Survey 3) for all six practices for a few key questions. Figure 1 addresses the question of providers being open to staff ideas on how to improve office processes. There was nearly a 15% increase in the "Always" response from the first to the third survey. Figure 2 provides the results to the statement "Staff are afraid to ask questions when something does not seem right." The "Never" category increased by over 9% while the "Most of the time" category decreased by over 9% from the first to the third survey. Figure 3 addresses how often the office staff discuss ways to prevent errors from happening again. There was a 6% increase in the "Always" response category and almost 5% decrease in the "Never or Rarely" categories. Figure 4 addresses changes in office practices in reminding patients when they need to schedule an appointment for preventive or routine care. There was a 10% increase in the "Always" response to this question. Figure 5 provides the results of

FIGURE 1:

Providers in this office are open to staff ideas about how to improve office processes

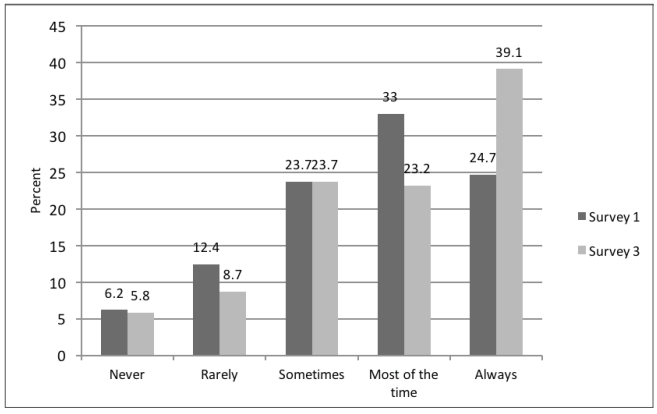


FIGURE 2:

Staff are afraid to ask questions when something does not seem right

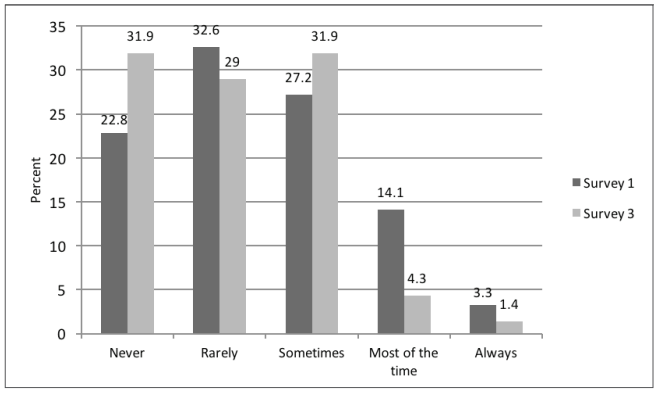


FIGURE 3:

In this office, we discuss ways to prevent errors from happening again

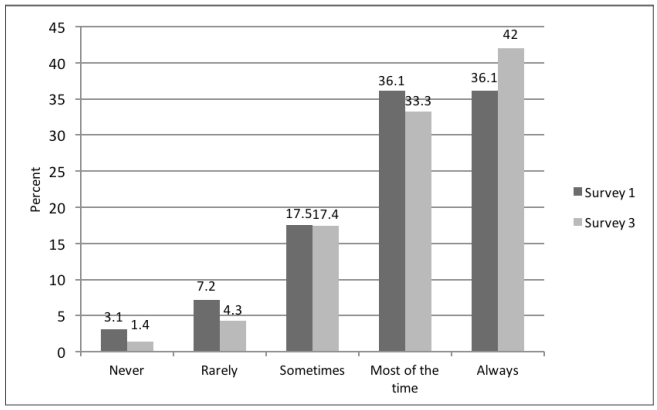


FIGURE 4:

This office reminds patient when they need to schedule an appointment for preventive or routine care

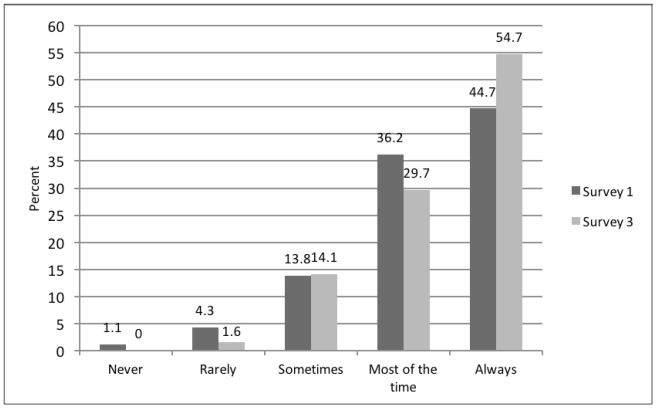
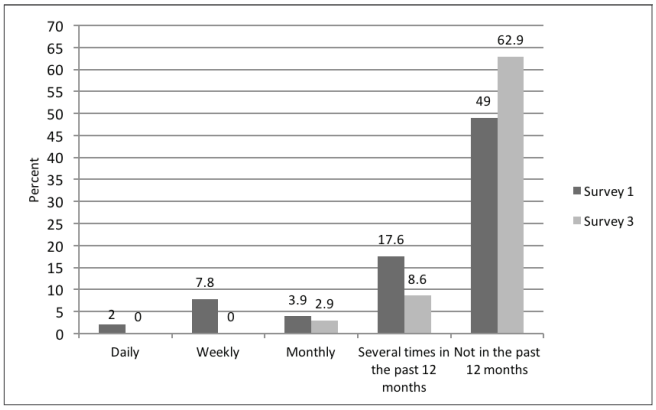


FIGURE 5:

A critical abnormal result from a lab or imaging test was not followed up within 1 business day



how critical abnormal test results were not followed up within 1 business day. There was almost a 14% increase in staff responding that this did not occur during the last 12 months and no daily or weekly occurrences of this problem were noted in the third survey

KEY FINDINGS/CONCLUSIONS

During the final stakeholder meeting, the one factor that separated successful office transformation in the course of this study was the presence of a service-oriented Medical Director or "servant leadership." Servant Leadership is a concept coined by Robert Greenleaf in the late 1960's. He writes of this leadership philosophy, "The difference manifests itself in the care taken by the servant - first to make sure that other people's highest priority needs are being served. The best test, and difficult to administer, is: Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?"[8]

Visible Medical Director engagement and eager support for team building and optimization of office culture was noted as a primary contributor by the office team by the most successful participating practices. Conversely, Medical Director turnover, turmoil, or disengagement was a cited factor in the least successful test sites. Four of the six practices had a consistent Medical Director who was highly engaged during the study. The staff of these practices all shared how this made a major difference in changing the culture of the office. The staff members of the two practices who experienced turnover recognized how this limited their ability to make greater strides during this practice transformation process.

Overall, the TeamSTEPPS based training was found to be beneficial by all of the practices even though there were issues with staff and Medical Director turnover. The results of the Medical Office Survey provided insight on how the training improved staff confidence and morale. Staff felt more comfortable addressing issues with their physician leadership and feel that they are a valued member of the patient care team. This training also improved office practices with regards to addressing preventative care and improving critical communication with patients.

REFERENCES

1. Kohn LT, Corrigan JM, Donaldson M, eds. To Err Is Human: Building a Safer Health System. Washington, DC: Institute of Medicine; National Academy Press, 2000.
2. Benjamin EJ, Blaha MJ, Chiuve SE et.al. Heart Disease and Stroke Statistics--2017 Update: A Report From the American Heart Association. Circulation 2017, 135:e1-e458.
3. Medscape Physician Compensation Report, 2017. Accessed on July 22, 2017 at http://www.medscape.com/features/slideshow/lifestyle/2017/overview#page=2
4. Medscape Lifestyle Report, 2017. Accessed on July 22, 2017 at http://www.medscape.com/slideshow/compensation-2017-overview-6008547#33
5. Bodenheimer T, Smith M. Primary care: proposed solutions to the physician shortage without training more physicians, Health Affairs, 32 no. 11 (2013): 1881-1886.
6. Pink DH. Drive. The Surprising Truth About What Motivates Us. Riverhead Books, New York, NY, 2009.
7. McChesney C, Covey S and Huling J. The 4 Disciplines of Execution. Free Press, New York, NY, 2012.
8. Greenleaf RK. The Servant as Leader, third ed., The Robert K Greenleaf Center, Indianapolis, IN, 2008.