Director's Forum

Using Contemporary Leadership Skills in Medication Safety Programs

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The discipline of studying medication errors and implementing medication safety programs in hospitals dates to the 1970s. These initial programs to prevent errors focused only on pharmacy operation changes – and not the broad medication use system. In the late 1990s, research showed that faulty systems, and not faulty people, are responsible for errors and require a multidisciplinary approach. The 2013 *ASHP Statement on the Role of the Medication Safety Leader* recommended that medication safety leaders be integrated team members rather than a single point of contact. Successful medication safety programs must employ a new approach – one that embraces the skills of all health care team members and positions many leaders to improve safety. This approach requires a new set of leadership skills based on contemporary management principles, including followership, team-building, tracking and assessing progress, storytelling and communication, and cultivating innovation, all of which promote transformational change. The application of these skills in developing or changing a medication safety program is reviewed in this article.

The study of medication errors dates back to the work of Michael Cohen, DSc, and Kenneth Barker, PhD, both of whom were influenced by Avedis Donabedian. Donabedian's work titled "Evaluating the Quality of Medical Care" introduced the concepts of structure, process, and outcome to the evaluation of health care quality.¹ In 1981, Cohen published a leading textbook in the area of medication errors; Barker established the first research methods for studying medication errors.² Barker is also well known for designing unit-dose drug distribution systems (eg, automated dispensing cabinets) and studying the benefit of barcode-assisted medication administration.

In the late 1980s, a Harvard-trained physician, Lucian Leape, discovered an alarming number of medical errors in his research on the utilization of cardiac procedures.³ This work led him to focus on medical errors, culminating in the Institute of Medicine (IOM, now the National Academy of Medicine) report, *To Err is Human: Building a Safer Health System*.⁴ This report introduced the concept that medication errors are the result of faulty systems, and not

faulty people. This concept was influenced by the advances in safety demonstrated by areas outside of health care, such as the aviation and automobile industries.⁵

The Joint Commission and other accrediting agencies endorsed this research and required hospitals to establish programs to identify and prevent medication errors and adverse drug events. To meet these regulatory requirements, most departments of pharmacy hired a pharmacist or reallocated the responsibilities of current pharmacy staff to review medication errors and work with various disciplines (physicians, nurses, administrators) to design interventions to increase medication error reporting and reduce harmful events.⁶ Most hospitals did not have specific medication safety programs, and the programs that were in place were centered on pharmacy processes instead of the broad medication use system (eg, nursing unit processes, physician prescribing).

The National Patient Safety Foundation and the National Quality Forum recommended medication safety programs that were multidisciplinary, comprised of health care professionals with specific clinical

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(adverse drug event detection and treatment) and administrative (eg, Lean Six Sigma) skills.^{6,7} The 2013 *ASHP Statement on the Role of the Medication Safety Leader* recommended that medication safety leaders be integrated team members rather than a single point of contact.⁶ Successful medication safety programs must employ a new approach – one that embraces the skills of many members of the health care team, and one that has many leaders positioned to improve safety. In short, developing and implementing medication safety programs requires a new set of leadership skills based on contemporary management principles. Postgraduate academic and residency programs in medication safety are now attracting new graduates to this medication safety career path.

The article describes the leadership skills that are necessary to implement an effective medication safety program in a complex health care environment. The pharmacy director should use varied leadership skills, including followership, team-building, tracking and assessing progress, storytelling and communication, and cultivating innovation, to promote transformational change in a medication safety program.

FOLLOWERSHIP

In “In Praise of Followers,” Robert Kelley describes how corporate success results from good followership rather than good leadership. This is based on the observation that high-performing teams that had lost their leader still did better than those who were not practicing followership, yet still had their leader in place.⁸

According to Kelley, individuals who exhibit followership :

- Manage themselves well;
- Commit to the organization and to a purpose, principle, or person outside of themselves;
- Build their competence and focus their efforts for maximum impact; and
- Develop courage, honesty, and credibility.

There are various types of followers, ranging from “sheep” (passive, lacking motivation) and “yes people” to “survivors” (just making it through every organizational change) and “effective followers.” A highly functioning leader will cultivate and invest in transitioning the critical thinking skills of followers to move them toward being effective followers. This is accomplished through various strategies, including targeted recruitment practices, tailored professional development plans, and delegation with feedback.

Table 1 lists the qualities of an effective follower; each of these qualities applies to a successful medication safety program. Due to the nature of the work of medication error prevention, self-management is critical. There is often little direct supervision for a very important mission: to protect and improve the lives of the patients. This leads to another characteristic—the belief in a singular purpose. The most successful pharmacy leaders are those who make every decision with the patient in mind. Third, the follower must continue his or her commitment to lifelong learning. Good followers are dedicated to continuing education, always seeking better ways to achieve outcomes more quickly, more effectively, and with less cost. Likewise, a good leader will emphasize the importance of continued learning. Finally, the best followers are those who hold themselves to the highest of expectations—to always act professionally through the honest and ethical decisions and recommendations they make.

TEAM-BUILDING

As described in management and leadership literature, ensuring that you have the “right people on the bus” is critical to the success of any pro-

Table 1. Qualities of an effective follower

Ambitious
Assertive
Candid
Committed
Competent
Courageous
Credible
Critical thinker
Enthusiastic
Fearless
Honest
Independent
Insightful
Intelligent
Responsible
Risk taker/self-starter
Team-player
Trusted

gram, including medication safety models. Leaders should ensure that they are recruiting, hiring, and training effective followers. Investment in the professional growth of these individuals will continue to pay dividends, while ensuring a highly functioning team. This is easier said than done. Patrick Lencioni, in his national best-selling book, *The Five Dysfunctions of a Team*, tells the fictional story of a new CEO at a Northern California technology startup who had been tasked with building the executive leadership into a cohesive team.⁹ The challenges this CEO faced are all too real and quite common in health care. Leaders must create a team out of high performers who are accustomed to working independently to achieve their individual performance metrics in silo. In his book, Lencioni identifies 5 “dysfunctions” (Table 2) that inhibit a team’s ability to become an efficiently coordinated group. Pharmacy leaders are encouraged to be vigilant in identifying these issues on their own medication safety teams. Example solutions are also identified in Table 2, but this list is not exhaustive. Successful medication safety teams must be unified in purpose and outcome. All members of the team should benefit from a culture that puts patient safety first and rallies the team behind this singular purpose. Projects and initiatives can be linked using strategic plans, but ultimately these plans should clearly connect back to the goal of

zero harm. Communicating this commitment to the team will ensure all members are united, helping foster a culture of unity and cohesion.

TRACKING AND ASSESSING PROGRESS

The documentation and sharing of medication safety activities is essential to the success of a contemporary medication safety program. Albert Einstein said, “Not everything that can be counted counts, and not everything that counts can be counted.” Often, we justify a relative lack of safety assessment by blaming a medication use system that is too complex, data retrieval systems that are too cumbersome, and error types that cannot be accurately quantified. However, in today’s health care environment that is dependent on measurement and quality, it is increasingly important to document, analyze, and report the safety and quality of our systems. Project-tracking is a simple technique that can be used to ensure that work is being done, team members are feeling supported, and target goals remain the center of focus. A simple project tracker has been used in many organizations to track and manage team progress. This tool is adaptable to various job functions and project types. It can be maintained by each individual team member or completed by a single manager responsible for all employees.

Essentially, the tracker includes project title, recent activity, estimated completion date, collaborators,

Table 2. Five dysfunctions⁹ and example mitigation strategies

Dysfunction	Suggested strategies
Absence of trust	<ul style="list-style-type: none"> • Practice exercises to build trust (share hobbies, personal histories, “bucket list” items). • Share team strengths and weaknesses (ie, Strengthsfinder). • The leader should set the example, and be the first to show vulnerability.
Fear of conflict	<ul style="list-style-type: none"> • Conflict is not necessarily negative; it should be productive and passionate. • Leaders must let productive conflict happen, and be a model for how to present this behavior.
Lack of commitment	<ul style="list-style-type: none"> • Clarify decisions and get buy-in from each team member. • Leaders must ensure all team members have adequate opportunity to share rationale behind decisions, and push for closure.
Avoidance of accountability	<ul style="list-style-type: none"> • Accountability must exist for teams to have high expectations; create a list of expectations that each member will adhere, employ standard reviews, and have team reward. • The leader must establish a “culture of accountability” to maintain focus on team goals rather than individual needs.
Inattention to results	<ul style="list-style-type: none"> • Teams must set aside their individual agendas and focus on team goals (ie, zero harm). • Leaders should take care to guide the team towards results, like a reduction in preventable harm, and not individual glory.

strategic goal, and a color-coded status bar. Project title is self-explanatory and should be completed with the initiative being tracked. The title should be chosen carefully, and the nature of the work being completed should be clearly identified. Generic titles, like “High Alert Protocol” should be avoided in favor of specific initiatives, such as “Insulin 500 Adverse Event Review and Protocol Development.” A clear project title will be much more descriptive to those who are least familiar with the details. Next, recent activity regarding that specific project should be documented and then updated with every major change, including the date of the update and a brief summary on the progress made. Estimated dates of completion should be a reasonable deadline for completion of the project. If it is too challenging to pick a date, consider breaking up a project into phases and estimating completion deadlines for each phase. Avoid choosing generic dates in the form of months or year; be specific, as this will enable managers to hold those responsible accountable for meeting their targets. The “collaborators” section should include a list of team members (specific names) on that specific project. This helps identify individuals who should be invited to meetings, be included on team communication, and are ultimately accountable for successful completion. A team leader can also be identified in this section. Progress on a goal is shown by the stop light indicators of red (delayed, in trouble), yellow (caution, some issues), and green (good to go, on track).

STORYTELLING AND COMMUNICATION

Storytelling is one of the oldest forms of communication. The Scandinavian research organization SINTEF released a 2013 study revealing that 90% of all data in the history of humankind was generated entirely in the preceding 2 years.¹⁰ Humans do not naturally process and interpret the world around them as points of data; we are programmed to record and understand stories. Stories provide people with a way of categorizing all of the sensory inputs, emotions, thoughts, and experiences of any given moment and packaging that complex set of data into a storable reference in the mind that can easily be recalled later.

Storytelling can enable a more profound level of understanding between professionals and patients. One method is through a health narrative. This narrative may be a short topical story about a particular event such as an encounter with a friend, boss, or

doctor, or it can be an extended story about a significant aspect of life such as schooling, work, marriage, divorce, childbirth, illness, trauma, or participation in a social movement. Because people tend to file memories as stories, these narratives can aid in explaining things that have happened. Health narratives follow the same idea and help patients express their feelings while also informing others about their illness. These stories can assist with the diagnosis and treatment of the patient's illness.¹¹

Storytelling in medication safety programs can open up an excellent dialogue for improving care. One excellent example comes from a situation in which a medication safety leader investigated low barcode-assisted medication scan rates among nursing staff. The investigating leader started the storytelling by having lunch with the nursing staff and asking them to share stories about their workday. The nurses were polite and offered stories about how much work they were doing that morning looking for missing supplies and how the environment of the unit was causing them stress. After a few more stories, the investigating leader recognized that low medication scan rates were not a function of poor nursing practice but rather a result of the nurses' activities in hunting and gathering missing supplies and navigating a challenging physical environment. This may never have been identified, if the team had not been given an opportunity to discuss their feelings, perspectives, and experiences through storytelling. Creating storytelling as a communication standard is important to ensure that all members of the team have access to the same information. Information should not be a privilege of only those who know how to find it, but should be available to all who require it in order to improve the health of their patients.

CULTIVATING INNOVATION

The word *innovation* has been used to describe a change in a process or policy/procedure, but true innovation occurs when the status quo is challenged and the current state is altered significantly, leading to breakthrough change. Innovation does not imply impulsive or reckless action or decisions that blatantly disregard patient safety. When leaders encourage teams to innovate, they permit them to challenge existing beliefs, standards, and expectations. They offer the team an opportunity to create something new with the potential to fundamentally change the

way that care is provided. In turn, teams must accept this mandate and push themselves to think past what they can already see.

Why does innovation play such a significant role in the contemporary medication safety leader's toolkit? In words attributed to Paul Batalden, "Every system is perfectly designed to get the results that it gets."¹² It is not rational to expect to see great progress through maintenance of the current process alone; something fundamental has to change about the way work is done. The medication safety leader must have the knowledge, skills, and abilities to innovate the medication use process to achieve safer outcomes for all patients. This level of innovation must come in an iterative and deliberate manner, and some level of failure is to be expected along the way.

Failure is often not a positive experience; failure wastes money, destroys morale, infuriates customers, damages reputations, harms careers, and sometimes leads to tragedy. But failure is inevitable in uncertain environments and, if managed well, it can be useful and even quite powerful. Failure defines and highlights personal and professional quirks, insecurities, blind spots, and deficiencies.¹³ But course corrections made as a result of failure can lead to ultimate success. A contemporary safety leader must make a clear distinction between situations where failure is appropriate and, conversely, where it cannot be tolerated (ie, negative impact on patient care).

Quick and decisive failures are small and offer nearly immediate feedback on practices and procedures. For example, when medication distribution of sterile products from central pharmacy is changed from twice an hour to once an hour for an oncology unit, the results of the decision can be tracked. The number of nursing requests for missing or late medications can be identified through phone calls, electronic requests, and automated dispensing cabinet override data. Within a relatively short amount of time, this decision can be objectively measured to have either cost or saved more time of pharmacy and nursing staff. If necessary, the decision can be quickly reversed without causing any long-term untoward effects on nursing or pharmacy expectations of the process.

"Failing fast" is also natural. Failing fast means learning through experimentation. If you do not know whether something will work, try it out and see what happens. If you get a negative result, reverse

course and try something else. Failing fast is action oriented – it is learning through taking action. The Scientific Method of Inquiry teaches us to make an observation, design an experiment to test a hypothesis, and observe the results to determine whether or not the behavior observed was as expected. Unexpected results are not defined as failures but rather as opportunities to redesign the experiment in search of a different outcome. The contemporary medication safety leader inspires scientists to be vigilant of their surroundings, asking why events occur and determining when it is appropriate to modify the system to achieve a better result. Regardless of outcome, this information is shared, adapted, and shaped into new safe medication use practices.

PROMOTING TRANSFORMATIONAL CHANGE

Use of the strategies outlined in this article will result in change that must be managed by pharmacy leaders. In many instances, these changes can be dramatic, and effective management of these changes can be the difference between an organization that increases its performance and one that is stuck in the "because we have always done it that way" mindset. There are 3 types of change that occur most frequently in organizations: developmental, transitional, and transformational. Transformational change is often needed to create safer systems quickly, yet it requires effective leadership and followership to be successful.

Transformational change is the result of a tangible shift in the business culture of an organization and its underlying strategy and processes. This type of change requires strategic planning, solid leadership, and unwavering support. Instead of methodically implementing new processes, the system may be drastically transformed, altering and expanding the limiting mindset in which the individual or organization operates. When discussing a mindset, we are referring to attitudes, perspectives, rationales, and logic. An impetus to transform is also required. In other words, if no one thinks the ship is sinking, it's difficult to get people to abandon it. If there's no obvious reason, or impetus, to change, then it's very difficult to motivate change. As part of the transformational change, resources must be allocated to support the organization goals and a plan to integrate change must cross traditional intra-organizational boundaries; individual components of change should also be discussed and implemented. A good

leader and manager should involve employees in all phases of the transition to ensure success. Through all types of change, and specifically transformational change, leaders can create organizational environments that are best positioned to support safer use of medications.

CONCLUSION

This article describes some contemporary leadership skills necessary to implement an effective medication safety program in today's health

care environment. **Table 3** provides examples of traditional and contemporary approaches to medication safety practice. This article guides the pharmacy director in developing a medication safety program through the use of followership, team-building, tracking and assessing progress, storytelling and communication, and cultivating innovation to promote transformational change. Use of these skills in developing or changing a medication safety program promotes the entire team as leaders in providing safe, patient-centered pharmacy services.

Table 3. Summary of traditional versus contemporary approaches to medication safety practice

Medication program strategy	Traditional approach	Contemporary approach
Leadership	Solo medication safety specialist is hired to review retrospective reports, identify issues/trends, and recommend mitigation strategies.	A team-based model is used, incorporating principles of followership to engage a diverse, multidisciplinary group of health care professionals to focus on proactive solutions to quality and safety issues.
Team-building	"Team" is created with a collection of clinical area representatives working in silo; they typically meet monthly or quarterly to review limited medication safety data.	Team is built, ensuring adequate representation for clinical areas, operational units, and health-system leadership. This team make it a point to leverage unique skill-sets and build accountability into each action. All members of the team benefit from a culture that puts patient safety first, rallying the team behind this core purpose.
Data tracking and analysis	Data are used sparingly and come mainly from voluntary error reports. Excuses are made that the medication use system is too complex, data retrieval systems are too cumbersome, and error types cannot be accurately quantified.	Nearly all decisions are data-driven and patient-centered. Dashboards and scorecards are developed and pull data from various sources. Project-tracking is consistently employed to ensure work is being done, team members are feeling supported, and target goals remain the center of focus.
Communication	Communication typically occurs during medication safety committee meetings, and occasional emails are sent in concert with changes to operational or clinical processes. Patients are represented by numbers on a presentation slide.	An essential component of any contemporary medication safety program is establishing a systematic approach for communication that reaches all levels of the organization. Updates to the entire organization are frequent and transparent. Storytelling is used effectively to share the patient experience, opening productive dialogue surrounding needed changes.
Experimentation	Failure is not tolerated. To limit failure, pilot studies are used to slowly incorporate suggested improvements. These experiments take multiple meetings over several months, ensuring relatively slow testing and adoption timelines.	Failure is recognized as inevitable in uncertain environments; if managed well, failing fast can be useful and even quite powerful. Clear lines are drawn between failures that are and are not acceptable. Organizations run many experiments quickly, learning and adapting toward the best processes for the patient.
Change	Change is made slowly; new processes are implemented methodically after complete consensus. Typically not as agile, this type of change is often found in resistant, traditionally structured organizations.	Contemporary medication safety approaches require transformational change. This tends to be more dramatic and uncomfortable, requiring strategic planning, solid leadership, and unwavering support.

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