

SAFETY CULTURE

Culture is said to be the very heart of an organization. It is one of the most stable and substantial forces within organizations, shaping the way members think, behave, and approach their work. In short, it represents an organization's unique style of operation.⁽¹⁾⁽²⁾ Why the recent focus on culture? There is an urgent call to action for healthcare entities to re-engineer their work processes, placing safety as a paramount institutional objective. However, it is clear that no lasting or substantive changes can be made without successfully remaking an organization's culture. The “patient safety movement” is now underway. In the face of new mandates, it is believed that culture can play a key role in helping organizations respond to the many challenges they now face.⁽³⁾ In this chapter, we will examine the elements of an organizational culture, discuss the barriers to creating a desired culture, and suggest ways to crystallize a culture of safety within your organization.

KEY ISSUES

◆ External Forces

Catalyzed by the Institute of Medicine reports “*To Err is Human: Building a Safer Health System*”⁽⁴⁾ and “*Crossing the Quality Chasm: A New Health System for the 21st Century*”⁽⁵⁾, the imperative to improve safety in healthcare is acquiring powerful political and economic muscle. A floodgate of external initiatives have begun, giving healthcare entities a clear mandate and agenda for addressing medical error in health care. It cannot be disregarded. New legislation and governmental programs are being proposed, accreditation standards for healthcare entities have been revised, the Leapfrog Group comprised of Fortune 500 companies and other private and public health care benefit providers is now mandating patient safety standards, and coalitions are being formed in an effort to promote patient safety best practices.

◆ Accreditation Standards

For hospitals accredited by The Joint Commission (TJC), new Patient Safety standards effective July 1, 2001 imposed a mandate to take greater accountability for patient safety and risk reduction. TJC has placed before hospitals a challenge to recognize and acknowledge any vulnerabilities in their organizational systems that contribute to safety risks. The new standards also speak to the need to create a culture that is conducive to organizational learning and to share any lessons learned within organizations and between organizations. A special emphasis is being placed on the essential role of leadership in fostering an environment of learning, on the need for interdisciplinary collaboration and communication among members of an organization, and on the integration of patient safety priorities into the new design and redesign of all relevant organizational processes, functions, and services. The expectation is that these patient safety initiatives play out through formal and informal structures with the “coaching” of leadership and the commitment of necessary institutional resources.⁽⁶⁾

◆ **Ethical Principles**

Over the years, professional organizations have developed Codes of Ethics that have served as guidelines for their membership, setting forth expectations for the manner in which they are to make decisions and conduct themselves while undertaking their work. These principles represent the core values and highest aims of each profession. Born out of the traditions espoused in the Hippocratic Oath, the maxim “do no harm” is intended to guide the ethical sensibilities of physicians. In its *Ethics Manual*, the American College of Physicians - American Society of Internal Medicine affirms “...the duty to do no harm to patients.”⁽⁷⁾ The American Medical Association's Council on Ethical and Judicial Affairs states “The practice of medicine, and its embodiment in the clinical encounter between a patient and a physician, is fundamentally a moral activity that arises from the imperative to care for patients and to alleviate suffering.”⁽⁸⁾ The Code of Ethics of Pharmacists states “A pharmacist places concern for the well-being of the patient at the center of professional practice.”⁽⁹⁾ The Code of Ethics for Nurses states, “The nurse promotes, advocates for, and strives to protect the health, safety, and rights of the patient...including the responsibility to preserve safety...”⁽¹⁰⁾ Clearly, the intent of these statements of principle by multiple healthcare professional groups is perfectly aligned with the goal of patient safety.

◆ **Defining Safety Culture**

Organizational culture is a manifestation of internalized assumptions or "taken for granted" understandings that are shared by an organization's members on such matters as the interactions between humans, institutions, and their environment. These assumptions enable them to find common ways of making sense of situations - of finding meaning in one's professional and personal existence.⁽¹¹⁾⁽¹²⁾ They are expressed in many ways, such as through the values, beliefs, attitudes, behaviors, language, customs, goals, policies, and operations of an organization.⁽¹⁾⁽¹²⁾⁽¹³⁾ Culture creates a sense of identity and establishes a vital link between an organization's members and its mission, and is considered the strongest determinant of the success or failure of an organization. It strengthens commitment to organizational goals and gives direction by clarifying and reinforcing standards of behavior.⁽³⁾⁽¹⁴⁾ Culture is not static but is the product of dynamic interactions between various elements within an organization.⁽¹¹⁾⁽¹³⁾ Hence, a "safety" culture is one that integrates the Hippocratic maxim of "first do no harm" into the very fiber of its identity, infuses it into the norms and operations of an entire organization, and elevates it to the level of a top priority mission. This mission is enshrined in formal corporate statements and visibly put before its members as a guiding principle that governs the work of an organization and is applied to its day-to-day practices. A safety culture is what emerges as a result of a concerted organizational effort to move all cultural elements towards the goal of safety, including an organization's members, its systems, and work activities.⁽¹³⁾ Some of the more concrete features of a safety culture will be discussed in this chapter within the context of the current "patient safety movement".

◆ **How Culture Evolves**

Culture is born out of the founding ideologies of an organization, which set the direction of its mission and vision. Over time, as a result of the organization's interaction with its external environment, certain values and practices emerge as more effective than others. Culture is further shaped by the internal interactions between members of an organization and the meanings that they ascribe to the many actions and events that transpire within the organization. Collectively, this generates the underlying spirit that will drive the culture. The vehicles that serve to transmit

and sustain culture are the use of statements of principles, symbols, stories, jargon, ceremonies and rituals, effective leadership, the process of socializing members, and the setting of goals. Visible statements of principle convey the desired cultural attributes and clarify the vision of the organization. Symbols represent the visible embodiment of the culture. The telling of stories can inspire action and change. Jargon becomes a common language of the culture, which helps to define cultural context. Ceremonies celebrate and give expression to organizational values. Rituals bring a rhythm to the work of an organization and reflect the character of the culture. Solid leadership helps to shape organizational vision and bring it to fruition. The process by which an organization acclimates its members, both formally and informally, integrates them into the desired culture. Finally, through the establishment of strategic, safety-directed goals, members of an organization are guided towards the attainment of the super-ordinate goal of the organization - which in this case would be the attainment of a true "safety culture".⁽²⁾⁽³⁾⁽¹³⁾⁽¹⁴⁾⁽¹⁵⁾

◆ **Safety as an Organizational Priority**

"Improved safety must be our specific, declared, and serious aim, beginning at the top of our organizations."⁽¹⁶⁾ One of the dominant characteristics of organizations with cultures of safety is their perception of the importance of safety and their overriding commitment to safety as an organizational priority.⁽¹³⁾⁽¹⁷⁾⁽¹⁸⁾⁽¹⁹⁾

Leadership

"Leadership is defined as the art of accomplishing change through people. Good leadership provides the motivation for achievement of goals. Leaders inspire their people through personal example, good management practices, and sense of moral responsibility."⁽²⁰⁾ Experts in the field of organizational change affirm that no substantive transformations will take place within an organization without the skill, visible commitment, and guiding example of leadership. Effective leadership sets the expectation and tone for an organization by articulating the institutional vision through empowering messages and by reinforcing "doing the right thing" as a corporate priority.⁽¹⁹⁾ Effective leaders "walk the talk" and achieve safety by modeling the behavior that is expected of their membership. Given the sweeping changes that will be necessary to bring about organizational safety, now more than ever, good leadership from both clinical and non-clinical arenas is an essential prerequisite to transforming an organization's culture.

Visible commitment to safety and process improvement

Research suggests that the more committed leaders are to safety and process improvement, the greater is the level of commitment of the workforce. This in turn has a positive influence on employee performance and on the prevention of adverse incidents. Visible commitment includes the provision of adequate human and financial resources in a sustained effort towards safety. Desired behaviors are often developed by emulating the observed behaviors of others and by picking up on cues that give subtle messages about the acceptability of certain behaviors. Thus, if there is a visible commitment to safety within the organization that is evident in the actions of its leaders, in the work environment, and in the behaviors of its members, it is more likely that a safety mindset will be established and safe work practices will be followed.⁽¹³⁾⁽¹⁹⁾

Integration of safety priorities

Safety must be the dominant characteristic of all high-risk industries, including healthcare. The manner in which a healthcare organization balances the issue of safety with other organizational priorities will shift its culture towards or away from a safety orientation.⁽¹³⁾ Safety cannot be treated as an adjunct to the strategic decision-making process, but must be front-and-center and implemented at all levels of the organization.⁽²¹⁾ The Joint Commission's expectation is that safety be "...integrated into the new design and redesign of relevant organizational processes,

functions, and services across the organization". ⁽⁶⁾ Safety initiatives cannot be viewed just as a means of complying with yet another external mandate, but must be perceived by the entire membership as being integral to the organization's mission and vision. ⁽¹³⁾⁽²²⁾ To this end, the organization must set safety goals and objectives that apply across the institution and down to the departmental level. Patient safety issues should appear as regular agenda items for discussion and implementation at all levels of the organization in order for safety to be sustained as a priority.

Shared responsibility and accountability

Leaders must redefine the meaning of shared responsibility and accountability, by first removing its punitive connotations. The paradox of adopting such an approach is that all members of an organization actually assume an even greater responsibility and accountability for safety. No longer wasting time pointing fingers at one another, the onus is now on everyone to be vigilant in identifying and disclosing systems weaknesses that create unsafe conditions and to collaborate in improving processes and preventing errors. ⁽¹⁹⁾⁽²³⁾⁽²⁴⁾ A culture that is quality and safety oriented is characterized by a strong, broad-based working alliance that shares ownership of the organization's vision. The alliance is strengthened by the collaboration of "centers of power" within the organization, represented by critical segments of the hierarchy, including executive and medical staff. The greater the solidarity and sense of ownership across the organization, the greater the willingness to share responsibility and accountability for achieving the vision of safety. ⁽²⁵⁾

◆ Systems and Human Factors Influences

Aided by research in other high-risk industries, the application of new theoretical concepts to healthcare is contributing to a richer understanding of the influence of systems and human factors on organizational safety.

Systems Theory

Systems theory affirms the notion that most errors are not caused by negligence or incompetence, but by underlying flaws in systems that create an error prone work environment. Error is viewed not as a cause but as a consequence or symptom of latent conditions that generally originate at that level of an organization that is more removed from its front line operations. Latent conditions typically stem from deficiencies in organizational functions such as developing policies and procedures, budgeting, staffing, maintaining equipment, and managing processes. These latencies can create work conditions that exacerbate human fallibility and stress the limits of human performance. In fact, the points of origin of many latent conditions can be found even further upstream, beyond the sphere of the individual organizations, to include the activities of external entities such as healthcare payers and drug/device manufacturers. ⁽²⁶⁾

Human Factors Theory

"We cannot change the human condition, but we can change the conditions under which humans work." ⁽²⁷⁾ Human Factors theory seeks ways to understand and enhance human performance by taking into account known human strengths and weaknesses that manifest at the point of interface between humans and other elements in work processes. These other elements include machinery, technology, and the work environment itself. The goal of applying this approach is to then modify these other elements to be compatible with the human element. The relevance of Human Factors theory to creating a culture of safety translates into three principles that guide system design: (a) Preventing errors by designing systems to compensate for predictable human weaknesses, making it more difficult at every hand off in the system to make mistakes; (b) Making errors visible so that they can be intercepted; and (c) Developing strategies to mitigate the effects of errors once they occur. ⁽²⁷⁾⁽²⁸⁾

◆ **Medical Uncertainty**

The practice of medicine takes place within a realm of multiple uncertainties. Clinicians encounter uncertainty arising from their own human limitations, the complexities of human physiology and disease, individual patient characteristics, multiple treatment modalities, and the magnitude and limits of scientific knowledge. Given the range of variability in circumstances surrounding medical activity, it is often difficult for clinicians to define the boundaries between avoidable and unavoidable mistakes.⁽²⁹⁾⁽³⁰⁾ Therefore, in order to develop effective safety strategies, it is important to consider how clinicians think about medical error. Some general notions, drawn from various studies, are presented here. One study suggests that medical students learn early on to adapt to the realities of medical practice. These realities include managing an ever increasing knowledge base, the need to often work with probabilities because of the limits of medical knowledge, and the difficulties of distinguishing between one's own limitations and those of the knowledge itself.⁽³¹⁾ How these uncertainties are dealt with early on will affect thinking and behavior as future professionals. Other sociological research reveals that from these uncertainties may grow an awareness of one's own inevitable fallibility and personal vulnerability. This feeling comes to be shared by clinicians alike, all of whom can strongly identify with the mutual experience of uncertainty and the risk of error. This research further suggests that mutual empathy nurtures in clinicians a sense of shared understanding and forgiveness for error, which may further evolve into a norm of non-criticism. As a result, clinicians may come to believe that only their peers can be the true judges of one another's errors.⁽³⁰⁾

There is no dispute around the fact that uncertainty is an ever-present reality of medical work and that medical practice is often imprecise. Yet, the attitudes of clinicians that sometimes develop in response to uncertainty can stifle the creation of a safety culture. Rather than finding effective ways of managing medical uncertainty and remaining open to discussing ways of preventing avoidable errors, the response may be to hide behind these uncertainties and to excuse away error. Having an understanding of clinicians' experiences and knowing the reality of their world is vital in order to "...encourage healthcare professionals to self-insight. Increased understanding of this reality will promote closer and continual scrutiny of knowledge and practice, and the continual reduction in the boundaries of uncertainty where possible."⁽³²⁾ Strategies for proactively managing medical uncertainty include altering professional development and enhancing professional school curriculum to include training in collaboration, communication, problem-based learning, evidence-based practice, and techniques for investigating and learning from error.⁽²⁹⁾

◆ **Interdisciplinary Collaboration and Communication**

"Collaboration in providing patient care is more important than preserving an individual provider's professional boundaries or roles."⁽⁵⁾⁽³³⁾ Teamwork that fosters interdisciplinary collaboration and communication is promoted by The Joint Commission as an error prevention strategy to be adopted by organizations seeking a safety culture.⁽⁶⁾ Referred to as a "collaborative care model", this form of delivering care functions as a check and balance system that encourages professional scrutiny of the actions and decisions of each team member. It has the effect of equalizing power relations between team members by flattening the hierarchy. The collaborative relationship extends to patients and their families as well by empowering them to be active, not passive participants in the care planning process. High functioning teamwork is also characterized by respectful, open communication between team members. Good communication facilitates the processes of planning, decision making, problem solving, and goal setting, and

promotes the sharing of responsibility for patient care. Collaboration that is driven by cooperation and communication is a key determinant of positive patient outcomes.⁽¹¹⁾⁽³³⁾⁽³⁴⁾⁽³⁵⁾⁽³⁶⁾⁽³⁷⁾ *"Organizations with a positive safety culture are characterized by communications founded on mutual trust."*⁽¹³⁾ Trust is a product of the synergistic relationship that emerges from positive and respectful interactions between individuals who maintain open channels of communication.⁽³³⁾ While it is true that collaboration cannot be imposed nor does it arise merely from the creation of a specific organizational infrastructure, it is recognized however that the culture of an organization can have the effect of impeding or enhancing collaboration by the environment that it creates.⁽³⁸⁾⁽³⁹⁾

◆ **Organizational Learning**

Safety has been described as the final result of a process of organizational learning that involves all elements of an organization working collectively towards this end.⁽⁴⁰⁾ A learning organization is one that is *"...skilled at creating, acquiring, and transferring knowledge and at modifying its behavior to reflect new knowledge and insights."*⁽⁴¹⁾

Open, non-punitive environment

"Punishment drives reporting of errors underground, preventing the very systems examination that is needed to discover and correct the underlying causes."⁽¹⁹⁾ An environment in which the main objective of analyzing adverse events is not to punish human error but to understand systems weaknesses, serves to enhance critical learning. This is evidenced by a study of equally experienced operating room teams whose rates of learning varied based on whether or not they were free to openly contemplate and discuss their adverse experiences. The team with less communication barriers excelled at learning.⁽⁴²⁾ Creating a learning environment is premised on an understanding of the nature of complex systems. While on the one hand, systems create a synergy that facilitates outcomes that individuals could not achieve independently, complex systems are also known to create undesirable byproducts and unsafe conditions that likewise cannot be attributed to individual behavior.⁽⁴³⁾ *"An organization will never improve its process, if it believes its people are the problem."*⁽⁴⁴⁾

Flexible thinking

Organizations with a greater capacity for learning are those that maintain an open mind and a sense of curiosity, accepting that there is always something to learn because of the uncertainties, complexities, and fluidity of their environment.⁽⁴⁵⁾ These organizations are neither overly confident nor overly cautious in their pursuit of knowledge, since the former implies they have learned all there is to learn and the latter does not lend itself to innovation. Flexible thinking is important in understanding error causation, since the confluence of factors creating error-prone situations can continuously reconfigure itself. Organizations can never be too certain about the types of problems they may confront, which problem-solving approaches will work best, or who will be involved in the investigative process.⁽⁴²⁾⁽⁴⁶⁾ As organizations gain more knowledge about safety, they must also be open to expanding their conceptual base around principles of safe design, including such concepts as simplifying processes and designing procedures for rapid recovery from error.⁽¹⁶⁾ Flexible thinking enables organizations to learn by *"...figuring out how to use what you already know in order to go beyond what you currently think"*.⁽⁴⁷⁾

Learning to learn

Organizational learning is not a natural process but requires a conscious effort to acquire knowledge and understanding. This process involves a continuous cycle of reflecting on information and taking action to achieve organizational goals. An organization's potential for learning is enhanced if:

- ◆ more importance is placed on taking the time to achieve long-term fixes to problems
- ◆ the range of outcomes is broadened to include larger issues such as safety, quality, and systems improvement
- ◆ there is concern for the impact of problems on a wider population including, for example, patients, staff, visitors, and the community at large
- ◆ an organization is open to breaking customary practice and taking a broader view of the interdependencies among individuals, teams, tasks, systems, and cultural meanings.⁽⁴²⁾

Integrating evidence-based knowledge

"One of the objectives of a health care organization committed to learning should be to improve the match between scientific knowledge and clinical practice."⁽⁴⁸⁾ Medical errors are still prevalent, due partly to the failure to broadly disseminate and implement evidence-based knowledge within the healthcare industry.⁽¹⁹⁾ Historically, the practice of medicine has been somewhat inexact, relying as much on art as on science. Through the process of trial and error, the medical profession developed what it believed to be the most appropriate practices in response to particular illnesses based on known probabilities derived from a limited knowledge base.⁽⁴⁹⁾ As a result, much unfounded theory emerged due to lack of evidence, only to be later replaced with new theory.⁽⁵⁰⁾ Over time, with expanding knowledge, certain practices emerged as "tried and true", based on sound evidence. However, even with the increase in evidence to support certain practices, there still exists a marked disparity between the average quality of care that is being provided and the best that is available.⁽⁵¹⁾ Many procedures continue to be performed that have no scientific basis and are considered to be inappropriate or of questionable benefit. There are also a large number of patients who do not receive care that is highly indicated and of proven scientific benefit.⁽⁴²⁾⁽⁴⁸⁾⁽⁵²⁾

The objective of evidence-based medicine is not to impinge on sound clinical judgement or to stifle innovation, but to standardize certain tasks that are known to be critical steps in the patient care process that, if performed, are proven to have positive outcomes. Though clinical practice variations are known to contribute to systems complexity and error, they still persist for a variety of reasons. This may be partly due to a reluctance to relinquish habitual practice patterns, traditional autonomy, and outmoded paradigms about how medical work should proceed, for what is perceived as "cook book" medicine.⁽³⁷⁾⁽⁴²⁾⁽⁵²⁾ Some believe that guidelines are not being implemented because organizational systems are not sufficiently amenable to change. Other plausible reasons are that practitioners may simply not be aware of specific new guidelines, they may not have been instructed on how or when to integrate them into practice, they may disagree with the findings, or they may have greater confidence in alternative practices.⁽⁵³⁾⁽⁵⁴⁾⁽⁵⁵⁾ Experts assert that *"it is more effective to create systems that support desired clinical behavior than to focus on changing the behavior of individual physicians."*⁽⁵⁶⁾ Yet, even if there is willingness on the part of organizations to adopt guidelines, there can be some real challenges translating them into practice. Guidelines may need to be adapted to fit local circumstances. To determine the potential success of guideline transferability, organizations should assess factors such as resources, internal capabilities, patient preferences, implementation infrastructure, and applicability to all patient sub-groups.⁽⁵³⁾⁽⁵⁷⁾⁽⁵⁸⁾

Another factor that may contribute to poor adoption of evidence-based practice could be the ineffectiveness of the strategies used to implement practice guidelines. It is known that certain implementation strategies are more effective than others and that using multiple integrative strategies, instead of singular approaches, produce greater success when implementing change in complex systems.⁽⁵³⁾⁽⁵⁴⁾⁽⁵⁵⁾ Adherence to guidelines also improves when implementation strategies are custom designed to address known barriers.⁽⁵⁴⁾ The sources of the barriers could include deficiencies in the competencies, attitudes or skill levels of clinicians, resistance from

patients, and the structures and processes of care delivery. Examples of strategies to overcome barriers include integrating guidelines into the process of care by establishing protocols with standing orders for patients to receive certain medications and incorporating reminders into decision support systems.^{(59) (60)}

Another source of resistance arises from the fundamental difference between evidence-based medicine and the process of academic learning. Organizations, especially teaching hospitals, are faced with the challenge of integrating some degree of evidence-based standardization without impeding scientific curiosity and discovery. The same traditional cultural values that encourage autonomy and the attainment of individual expertise in support of innovation can also foster a mindset that inhibits the information sharing, open inquiry, and collective learning necessary for guideline implementation. Organizations must accept and incorporate some level of evidence-based knowledge, with an understanding that it represents the best scientifically based practices of the day, while at the same time continuing to challenge assumptions through innovation.⁽⁴²⁾⁽⁵²⁾ *"There should be a commitment to evidence-based health care with processes put in place to systematically reevaluate established practices."*⁽⁴⁸⁾ A safety culture is one that reliably and consistently assesses quality care in the interest of patient safety.⁽⁶¹⁾

◆ **The Quality Culture - Safety Culture Interface**

Creating a safety culture may be an easier task for organizations that have already integrated a continuous quality improvement (CQI) orientation into their existing organizational cultures. Hospitals with a CQI program in place may not encounter as many barriers to implementing safety initiatives because both approaches share a similar philosophy and methodology. The CQI approach entails looking at work processes and how members interact. It empowers those who are closest to where the care is provided to take a critical look at certain dimensions of healthcare quality, such as its efficacy and effectiveness. The goals of this exercise are to uncover any deficiencies in quality, to analyze the underlying processes that contribute to these deficiencies, and to then redesign these processes to eliminate or at least mitigate the potential for error. A powerful CQI tool is the PDCA (Plan-Do-Check-Act) model that draws on inductive learning by testing changes and assessing the effectiveness of those changes in real work settings. This small-scale learning can then become a model for larger scale learning. Literature supports that, overall, organizations with a quality culture perform at higher levels of organizational effectiveness. Organizations with the highest effectiveness are those that focus on error prevention and on pursuing innovative approaches to improving quality performance. The ideal integration of both cultures is to adopt safety as the primary dimension of quality and to combine quality and safety techniques in a comprehensive, organizational strategy.⁽²⁵⁾⁽⁶²⁾⁽⁶³⁾⁽⁶⁴⁾⁽⁶⁵⁾⁽⁶⁶⁾

◆ **Dispelling Fallacies**

Fallacy #1: Safety is an input variable

Safety is sometimes thought of as an input variable that can be introduced into an existing culture to produce a "safety culture". Thus, safety is merely an extraneous cultural element that can be acquired and infused into an organization. In reality, the contrary holds true. It is more accurate to say that safety describes more what a culture "is" or "becomes" as opposed to what it "has".⁽¹³⁾ *"Safety is an emergent property of cultural systems... which produce social conceptions of what is dangerous or safe, and of what attitudes and behaviors toward risk, danger and safety are appropriate."*⁽⁴⁰⁾ A safety program is not one that can be simply acquired and laid over an existing organizational structure and function.⁽²²⁾ Safety is considered instead an outcome or product of organizational processes and actions that must be sustained by safe practices.⁽⁴⁰⁾

Fallacy #2: Patient safety initiatives are too costly

There is a common belief that patient safety initiatives are cost prohibitive. In reality, the cost of medical errors is much greater than the cost of error prevention. Patient safety initiatives may in fact represent one of the best opportunities for a positive return on investment for hospitals. Consider the costs connected with an injury in terms of additional procedures and treatments, longer lengths of hospital stay, damage claim payouts, and loss of public trust from both third party payers and patients. Many believe the IOM report estimates are in fact too low and the full extent of error is poorly captured. Studies place the cost of errors at between \$2.5 - \$4 million/100 beds per year. A single adverse drug event can cost in excess of \$4,000.⁽⁶⁷⁾ In addition to the preventive cost savings, many process changes that result from safety measures have the supplemental effect of improving productivity, which can also reap cost benefits.⁽²²⁾ Clearly, there is a good "business case" for organizations to implement patient safety initiatives.

Fallacy #3: There will be overwhelming resistance to change

Another fallacy is that there will be significant resistance encountered when proposing changes to existing health care delivery practices. While it is true that there are some barriers to change that can be deeply embedded in the culture of an organization, the experience of health care leaders and organizations who were at the forefront of implementing medical error reduction initiatives is contrary to this belief. Their experience confirms that when presented with effective methods for improving systems that would result in safer health care delivery, there is a willingness on the part of clinicians, including physicians, nurses, and pharmacists, to alter clinical practice.⁽¹⁹⁾ This willingness to adopt change is further enhanced when initiatives are backed by leadership support and the organization has removed barriers to learning, such as seeking culpability for error.⁽⁶⁸⁾⁽⁶⁹⁾

CHALLENGES

◆ The Existence of Cultural Diversity

While there is usually a dominant culture within an organization that represents the core values and goals shared by most members, there are also many sub-cultures existing within the larger culture. Sub-cultures possess unique cultural characteristics that are reflective of groups of people who share a commonality of beliefs. Sub-cultural groups may represent those who operate within work units that are either functionally or geographically distinct from other operational segments of the organization or those in varying levels of authority, for example. Organizations must be aware of the cultural diversity within their walls when attempting to create a culture of safety. Below is a discussion of some of the sources of cultural diversity that may exist within the healthcare setting.^{(11)(13) (14)}

The melding of multiple cultures

An organization is a melding of persons of diverse ethnic, religious, and professional groups who are also members of a wider social culture. They bring with them their own unique set of cultural attributes, creating a mosaic of cultural realities with varying and even competing value systems, each co-existing within the larger organizational culture.⁽³⁾ Even among the wide range of work groups in an organization, including clinical and non-clinical, administrative and front-line staff, there may be variations in professional ethics and identities. These varying cultural orientations are intertwined with the characteristics of the dominant culture and various other sub-cultures of the organization. This creates a dynamic and fluid cultural environment in which formal and

informal rules intersect. Some believe it is the informal rules and trade-offs between individuals that are the true drivers of culture, rather than the formal rules of the organization. Leaders must become skilled at negotiating diverse perspectives. Creating cultural cohesion may require an ongoing process of formally and informally negotiating middle ground between cultural elements, including organizational goals, professional practice, and members' personal goals. ⁽¹¹⁾⁽¹⁵⁾⁽³⁷⁾⁽³⁸⁾

A hospital's dual authority structure

The dual authority structure within a hospital organization may represent another source of tension, stemming from a difference in cultural perspectives between hospital administration and medical staff. The administrative arm of a hospital is built upon a bureaucratic structure and is therefore more mechanistic in nature, encouraging conformity and efficiency through standardized rules and regulations. The administrator's allegiance is to organizational goals, with an orientation that is based more on human relations and the social sciences. The administrative arm prefers a proactive approach and long-term goal setting. The medical profession, on the other hand, is founded on collegiality. It thrives on clinical autonomy and self-regulation, adopting a more reactive, independent problem-solving approach, with a preference for immediate outcomes. Medical staff possess a strong allegiance to their patients and their profession. Their orientation is more technical in that it is rooted in the natural sciences. As a result, the medical culture has historically tended to resist administrative constraints. ⁽⁷⁰⁾⁽⁷¹⁾⁽⁷²⁾ These differences may pose a unique challenge for hospital administrators who are being called upon to implement organizational patient safety initiatives, the success of which are dependent on the buy-in and leadership of medical staff. Their cooperation is crucial since physicians are reliant on and have a part in shaping every patient care process. ⁽⁵⁶⁾ One way of moving forward cooperatively is through the adoption of scientifically sound, evidence-based practices that have the support of medical staff and that are known to enhance the safety of patients.

Physician-nurse relationships

The quality of the collaborative relationship between physicians and nurses can affect the quality and outcomes of patient care. Historically, there has been some discord between the professions, partly attributed to the perception of professional roles, limitations on the scope of practice, and lack of administrative and physician support for teamwork. Whether due to the socialization process, or because of their level of knowledge and training, physicians have traditionally sought autonomy in clinical practice. There was reluctance to view nursing as a partner in the patient care process. Physicians instead had a strong tendency to seek out information and decision support from peers in their own profession, not across professions. Some suggest the gap stems from differing views about the needs of patients. ⁽³⁷⁾ In some cases, patterns of communication and interactive behavior evolved that were not conducive to partnership between professions. Even though the nursing profession has elevated in status and there is more focus on facilitating joint practice, there may remain some remnants of less productive patterns of interaction. ⁽³³⁾⁽³⁷⁾ Recent studies show that there is even a difference in how collaboration is viewed between professions - in the way it is defined and in the degree to which each perceives its presence in the same situation. Physicians tend to believe that more collaboration exists than do nurses. ⁽³⁸⁾

Counter cultures and cultural splintering

There may be times when finding common ground between the diverse cultural realities may be a challenge. Cultural sub-groups, including professional groups, may perceive others as lacking adequate understanding of their worlds or of the unique demands and pressures placed on them by virtue of their roles and responsibilities within the organization. Likewise, if there are divided loyalties of any kind, they can manifest as sub-cultural divisions on all levels of an organization. If they run counter to the dominant organizational culture, it may impede achieving the mission and goals of the organization. Counter cultures may emerge as a result of unresolvable clashes

with the dominant culture or between sub-cultures, causing a splintering in the organizational culture. It is possible for cultural splintering to be the fault of leadership. If members observe leaders “saying one thing and doing another”, the disparity between corporate mission and practice becomes apparent, and loyalty to leadership and the organization diminishes.

⁽¹¹⁾⁽¹⁵⁾⁽⁷³⁾⁽⁷⁴⁾⁽⁷⁵⁾ Sometimes, it is the organization's inability to adapt to internal or external challenges that results in a splintering of its culture.⁽¹⁴⁾

◆ **The Challenge of Unifying Cultural Differences**

For an organization to undergo “adaptive change”, it “...requires people's hearts and minds to change, not just their preferences or routine behaviors.”⁽⁷⁶⁾ Cultural cohesion is enhanced when members of an organization share a mutual sense of purpose and work collectively towards a common vision. Ideally, this is accomplished through the voluntary embracing of philosophies and practices that mirror the core values, mission, and vision of the institution. In reality, this is not an easy goal to accomplish and may require multiple strategies to achieve some degree of cultural fit and synergy between diverse cultural groups. Below is a discussion of various strategies that may facilitate unifying cultural differences.

Building leadership trust and credibility

“Achieving excellence in safety is largely about building relationships.”⁽⁷⁷⁾ Leaders who are most successful at motivating an organization to adopt a safety culture are those who have built a foundation of trust and credibility with their membership, which engenders commitment to the vision of the organization. The manner in which leaders handle issues and demonstrate their level of commitment to the organization and its membership, on a daily basis, affects their credibility and the degree to which they can be trusted. Once this foundation is established, leaders can translate vision into action by taking steps to develop core competencies within the organization.

- ◆ **Gaining Insight** - Leaders must gain insight into what the safety issues are by assessing the strengths and weaknesses of the organization and the leader's role in contributing to any undesirable cultural conditions in the workplace.
- ◆ **Setting Direction** - Leaders must strive to establish a vision and goals that are meaningful and aligned with an organization's membership. The optimal vision and goals are lofty ones that focus an organization's energy and stir people's minds and hearts into action.
- ◆ **Creating Focus** - That which leaders focus their energy on will be reinforced in the culture. Leaders must “walk the talk” and prove by their actions that safety is a corporate priority.
- ◆ **Developing Capability** - Leaders must put resources into developing competencies through a variety of means, including safety training, skill development, and team building.
- ◆ **Building Accountability** - Leaders must first hold themselves accountable before they can expect accountability on the part of others. This requires developing action plans for the entire organization, including its leaders, and routine follow-up on actions taken.⁽⁷⁷⁾

Addressing underlying assumptions

“Once people have created a particular way of understanding the world, they tend to hold to it quite tenaciously.”⁽⁷⁸⁾ More often than not, when conflicts arise within an organization, it has less to do with overt issues and more to do with the underlying tacit assumptions of those involved. Beneath the surface lie the perceptions, thoughts, and feelings of individuals that shape the context of each situation, often without any awareness on their part that these are the true drivers fueling the conflict. It is at this level where the real disconnect occurs. Most efforts to resolve conflict focus on the more visible manifestations of these assumptions, as expressed in certain value systems or behaviors, which are mistakenly believed to be the root of the problem. No resolution will be achieved unless organizations explore issues at a deeper level and discover the true source of the disparity in assumptions, since it is the assumptions that shape one's values

and behaviors. Values are often viewed as the bridge between assumptions and behaviors, and can act as a mediator between the two. Oftentimes the door to uncovering assumptions can be opened once common ground is found in the sharing of values.⁽⁷¹⁾

Aiming for desired attributes

One strategy for attaining cultural cohesion is to first define those desired attributes that can be found in organizations with safety cultures, such as:

- ◆ Process is as important as statistics
- ◆ Negative trends are dealt with promptly
- ◆ Each employee takes responsibility for safety

The next step is to identify which values and beliefs will bring about these attributes, such as:

- ◆ Doing it because it's the right thing to do
- ◆ Recognizing it is part of an unending cycle of continuous improvement
- ◆ Seeing individual action as connected to the whole⁽⁷⁹⁾

An organization then nurtures those values that will lead to the desired attributes. For example, in an effort to promote teamwork as a critical component of a safety culture, leadership can support methods of improving team performance as a means of nurturing the culturally accepted value of ongoing learning. In this way, a gradual shift towards desired attributes may occur as a result of an organization's efforts to demonstrate their values, the by-product of which is safety.⁽⁴²⁾⁽⁷⁹⁾

Considering reciprocal organizational relationships

"A key element of a system is that its performance depends as much on how its parts interact as on how they act independently of each other."⁽⁸⁰⁾ Change initiatives designed to create a safety culture must take into account the reciprocal relationships between individual, job, and organizational factors within a broader safety context. Considering only one aspect of culture to the exclusion of others will likely not result in a positive outcome and may even create unforeseen safety hazards. Examples of this would be attempting only to change employee attitudes without considering job or organizational features, or making changes to systems without considering people's attitudes or the impact on work processes. For example, it would not be recommended to implement redesign of a clinical process or of a clinical work area without the input or buy-in of clinicians, particularly medical staff, or without taking into consideration the impact it may have on patients. An integrated approach to creating a safety culture looks at the reciprocal effects of such factors as the perceptions and attitudes of members, their patterns of behavior and competencies, and the presence and quality of organizational systems and sub-systems that support safety efforts.⁽¹¹⁾⁽¹³⁾⁽⁶⁹⁾

Influencing group dynamics

Cultural dynamics within organizational work groups can impede or enhance the willingness and ability of members to report and learn from errors. Work groups can behave as self-correcting, high performance units that are efficient at detecting errors and learning from them. This, however, requires a climate of openness to discuss error, without fear of reprisal. The behavior of supervisory staff appears to be the strongest catalyst for nurturing such a climate. Those units whose supervisors encourage open, non-judgmental review of errors and who encourage looking out for and respecting team members across professional boundaries have higher rates of error detection. As the work group culture becomes more attuned to safety, the reporting of errors increases. Those units with more oppressive supervisors have lower error rates due to suppression of data.⁽⁸¹⁾ Group dynamics is also known to influence "team spirit" and the level of motivation to "give it ones all" in the interest of improving the quality of patient care. The critical variable appears to be the degree to which ones individual contributions to a work group are recognized by the rest of the group members. If the efforts of individuals are visibly

recognized, they will be more apt to contribute more to the goals of the group than they would if it were for their own personal benefit.⁽⁴³⁾

Closing the gap between leadership and the front-line

Experts who study highly successful organizations contend that in order to achieve patient safety, there must be a consistency in culture throughout the organization. Yet, studies reveal that there is a disconnect in the perceptions of safety between leadership and front-line staff and between clinical and non-clinical personnel. Leadership and non-clinical personnel, in general, have a more positive view of safety within the organization than do the front-line and clinical personnel and believe there is good reciprocal communication flow within the hierarchy.⁽¹⁸⁾⁽⁸²⁾ Those on the front-line have greater concerns about errors, are more aware of patient safety complaints, are less likely to believe their leaders are truly supportive of safety awareness and procedures, and are skeptical about their leaders' concern for safety.⁽⁸²⁾ Kizer suggests that many leaders are out of touch with their organizations' safety issues and need to come into a greater awareness of the high-risk nature of health care and begin to view it on a par with other high-risk industries like nuclear power or aviation.⁽²¹⁾

Of particular importance to achieving a safety culture, organizations must find ways to bridge the gap between leadership and the front-line. Leadership must build trust and credibility with the front-line, learn about issues firsthand, and have a forum for conveying cultural precepts. On the other hand, care providers need a vehicle for expressing their concerns around safety issues and for facilitating change through rapid improvement cycles. Patient safety rounds are one means of bringing together leadership and care providers, on a regular basis, in an effort to sustain a mechanism that achieves these goals. The format of the rounds can be designed to uncover factors that contribute to safety risks by eliciting responses to a series of questions, such as: *"What keeps you awake at night?"; "Can you think of ways in which the system or your environment fails you on a consistent basis?"; "What is the accident waiting to happen?"; "Is there anything we could do to prevent the next adverse event?"; "Can you think of a time when our interventions stopped a patient from being harmed who would otherwise have been harmed because of a system flaw?"; "What should we have asked you but didn't?"* The feedback is then put through a rapid improvement cycle and appropriate changes are made. In deciding on an initiative that would best bridge the cultural gap, as with patient safety rounds, it should be one that has both symbolic and practical significance - a mechanism for fostering cultural values and for achieving real improvements in patient safety simultaneously.⁽⁸³⁾

Driving change through clinical leadership

Galvanizing clinician support for change requires the leadership of clinicians themselves. This bottom-up approach is the most critical step to enhancing clinician involvement through peer influence and interaction within their own social networks. *"Most providers look to each other for approval, support, information, and feedback and most are sensitive to what successful role models say or do."*⁽⁶⁰⁾ Engaging clinicians has greater success if key individuals can be identified from within social networks to take on the role of "champions" or "change agents". Ideal candidates are those who are perceived as leaders by their peers, have the respect and trust of others, can identify with the concerns of their peers, are expert clinicians, have positive working relationships with other professionals, are passionate about the cause, and are committed to continuous quality improvement.⁽⁵⁹⁾⁽⁶⁰⁾⁽⁸⁴⁾ Such leaders can motivate change by shaping the attitudes of peers and by creating positive expectations and a sense of mutual ownership and accountability.⁽⁸⁵⁾ They can set the bar high and create the incentive for a healthy challenge.

Clinicians also respond favorably to initiatives that are perceived as meaningful and important to them and closely related to their work.⁽⁵³⁾ Since clinicians, especially physicians, have extensive

education and training in scientific disciplines, recommendations that are based on sound scientific evidence with concrete performance targets will be more readily received. Beyond scientific facts, among the factors that are considered of great importance to clinicians in influencing practice is the value they place on clinical experience. Thus in order to enhance buy-in, when contemplating ways to improve care, it is crucial to seek the input of clinicians, especially medical staff leadership, before implementing changes.⁽⁶⁰⁾⁽⁸⁶⁾ With initiatives that necessitate a change in clinical practice, clinicians will likely be more amenable if interventions do not cause significant disruption to current routines and do not result in major changes in practice management.⁽⁶⁰⁾ Clinicians are also more accepting of innovation that is not highly complex and that allows for experimentation and possible rejection, if necessary.⁽⁵³⁾

Consideration must also be given to the concern that clinicians have about the value of their time and their reluctance to take time away from their clinical practice to be involved in change initiatives.⁽⁸⁷⁾⁽⁸⁸⁾ Organizations must maximize the benefits of clinician buy-in and minimize the time they must be away from their patient care duties, or provide for release time. The most desirable change initiatives are the ones where "...early efforts can be visibly valuable"⁽⁵³⁾ and of benefit to many people. Establishing a strategic alliance between clinical and non-clinical leadership will facilitate rapid assessment of systems barriers to change and mobilization of organizational resources.⁽⁵³⁾ Assessment should include determining clinician learning needs that may stem from gaps in knowledge and skills, cultural attitudes and beliefs, the change process needed for implementation, and the influence of contextual factors.⁽⁵⁶⁾⁽⁵⁹⁾⁽⁶⁰⁾

Creating an overarching culture

An overarching culture represents a common thread, perhaps an issue or goal that all members of an organization are affected by or can identify with. It's possible for an overarching culture to co-exist with other diverse cultural elements in the organization.⁽³⁾⁽¹¹⁾ Cultural diversity may offer a wide spectrum of perspectives on safety-related issues, such as how problems emerge or what problem-solving approach to take. However, an overarching culture acts as a driver for the collective actions of the organization and keeps members more or less aligned with its basic philosophy on safety, despite differing perspectives.⁽¹¹⁾⁽¹³⁾ An overarching culture may be woven together around certain critical issues, which brings a sense of unity to the organization. A sense of urgency for change can be created within the organization if the issue is compelling enough to overcome any underlying resistance to change. That urgency can take the form of an opportunity or a danger. A sense of danger may be imposed by external mandates or economic threats, or may come on the heels of some tragic incident. The recognition of opportunity may be born out of a genuine desire to bring something positive out of a negative experience or to lead the way in innovative approaches to safety.⁽¹¹⁾⁽⁸⁹⁾

Attaining a super-ordinate goal

Using a goal-setting paradigm, it is argued that a safety culture comes about through the strategic, goal-directed manipulation of certain organizational functions that impact safety. This is done by creating numerous safety-oriented sub-goals that direct the focus and actions of an organization's members towards safety. Examples of sub-goals are the promotion of teamwork training, the conducting of risk assessments, and the education of staff about error causation. Modeling the success of other industries, it is suggested that at least some select sub-goals should be highly ambitious in order to stimulate substantive change. Referred to as "stretch goals", they serve the purpose of creating an incentive to overshoot marginal goals and to strive for some organizational ideal. Social research affirms that changing behavior first can in fact result in a change in attitude. Hence, through the performance of certain goal-oriented activities that support the ongoing practice of safe work habits, an eventual shift in mindset can evolve. As these

incremental sub-goals are met, the successful outcomes culminate in the attainment of the super-ordinate goal of the organization, which is that of achieving a safety culture.⁽¹³⁾⁽⁹⁰⁾

Integrating sub-cultural components

The term "sub-culture" can be used in reference to an aspect or component of a larger culture. In this case, the larger culture is a "safety" culture. Sub-cultures are interdependent and must come together in order to achieve a safety culture. For instance, a "learning" culture must be created as a prerequisite to the formation of a "flexible" culture, which enables the organization to be adaptable to change. Both of these sub-cultures must be in place in order for the organization to respond appropriately to certain kinds of risks and to make necessary changes. At the same time, there is a need for a "just" culture that focuses on non-punitive accountability in order to bring about the level of trust necessary for the establishment of a "reporting" culture, which in turn affects organizational behavior. Only when these sub-cultures are firmly integrated and in place can a safety culture truly crystallize.⁽¹³⁾

Making safety real and personal

Ultimately, safety is a concern that must become real and personal to members of an organization in order to compel them to change. Safety efforts have to be perceived as relevant to ones sphere of work or to ones sense of personal or professional responsibility. One approach might be to address the question: "What's in it for me?" For example, safety initiatives may facilitate work processes and positively impact job satisfaction. In this way, organizational and self-interests can be brought into alignment. Finding a mutuality of interests may also be achieved by shifting focus to a common goal.⁽²⁵⁾ For example, physician-nurse relations were found to improve when the focus of their collaboration shifted to quality and improved patient outcomes.⁽³³⁾ Members of an organization may need to be "enlightened" to the importance of the mission. One venue is powerful storytelling. It can ignite passions and transform people far more effectively than many other means of persuasion, particularly if the stories convey the tragic details surrounding real events related to safety issues. The greatest impetus for change is when issues touch people on a deeper and more personal level - when they realize what is at stake and make a personal connection to the mission of safety because they truly care about the outcome and about the impact of safety on patients, families, and staff.

◆ Raising Awareness of Risk and Error

Organizations with safety cultures have an acute awareness of the high-risk, error-prone nature of their work.⁽⁹¹⁾ In healthcare, compared with other complex industries, the range of risk levels is higher and there is a higher rate of preventable errors.⁽⁹²⁾⁽⁹³⁾ Yet, even though statistics bear this fact out, there are still some barriers to full acknowledgement of the level of risk and error prevalent within the healthcare industry.

Uncertainty around error

Within healthcare, there still remains some uncertainty around what constitutes error, how error is recognized, the origin of error, and how it is prevented. It can stem from the uncertain nature of medical practice itself or from the varying perceptions about the difference between what is considered an error, a known complication, or an unanticipated complication of the disease itself. Error can be particularly challenging to discern since "...so much of what we do in health care is avoiding near-misses".⁽⁶³⁾ "What we call an error is an adaptive behavior in another context." ⁽⁹²⁾ "At the sharp end, creating safety is mainly the story of adaptation. People are constantly devising strategies to forestall failure." ⁽⁹⁴⁾ When a medical intervention takes place, perspective can be very different. It is often unclear if an action is right or wrong because at the time it

occurs, it may not necessarily be perceived as wrong - it becomes an error as other facts become revealed. When an incident undergoes analysis, hindsight bias may color one's perceptions of circumstances. Awareness of error may also be obscured by "confirmation bias", which is seeing what one expects to see, as opposed to what is actually occurring. It is also argued that uncertainty may arise from a failure to give feedback on the root causes of errors and to share lessons learned. There is evidence that the more knowledge one has about errors, the greater is the awareness of one's own errors and of potentially unsafe conditions, and the sooner the errors will be recognized.⁽⁴⁹⁾⁽⁸²⁾⁽⁹⁵⁾

Overestimating ones abilities

Perception surveys of medical staff, particularly of physicians in surgery and anesthesiology, reveal that they tend to underestimate the effects of stress, fatigue, and time pressures on their performance. Those who denied the effects of these conditions on performance were found to be less likely to employ error reduction strategies. While it is important to have confidence in one's ability to execute a complex set of skills, there is a risk in not fully acknowledging one's physical limitations. Research in cognitive psychology reveals that increased stress levels limit one's thought processes and breadth of attention. Furthermore, fatigue and stress can create diversions in cognitive functioning that increase the probability of human error.⁽⁶⁹⁾⁽⁹⁶⁾⁽⁹⁷⁾⁽⁹⁸⁾ There is also a tendency on the part of some organizations and professionals to deny that the problem of medical errors is as prevalent in their own domains or among their own members and to believe that "it couldn't happen here". They tend instead to attribute error to the sub-optimal competencies of other entities and individuals.⁽²²⁾

Desensitization to error

There is evidence that suggests that desensitization to error occurs in environments with a higher prevalence of error. The more error that exists within the environment and work processes, the less apt one is to detect error.⁽⁹⁹⁾ Research shows that for every error that is detected through standard means, such as incident reporting, there are fifty others that go undetected. Among the reasons for this phenomenon is the historical acceptance of a high level of variability in medical practice. In healthcare, there is also found to be a sense of complacency that can arise from the notion that hazards are an inevitable byproduct of the complexity of the system in which care is delivered.⁽¹⁶⁾⁽⁶⁸⁾ Furthermore, there is evidence that shows that "*...when fewer people watch more things, they notice less in an attempt to keep up.*"⁽¹⁰⁰⁾ With the current nursing shortage and the increase in patient acuity, there is more to do and less staff available to perform necessary tasks, making one less able to take the time to notice errors. So, within an industry that has a high level of error prevalence and a high level of complexity, one may be challenged with a culture tolerant to error.

◆ Barriers to Openness

The greatest impediments to open discussion of error are the fear and shame associated with disclosure of error and the lack of confidence that disclosure will generate continuous quality improvement measures rather than admonishment.⁽¹⁰¹⁾ It is well known that some of the more formidable barriers originate outside of healthcare, namely in the courts, departments of health, and state boards of licensing.⁽¹⁹⁾ Below is a discussion of some internal barriers that might hamper efforts to create a culture of openness.

The sociological tendency to blame

The urge to find blame and to punish are processes that are deeply engrained in our social fabric - particularly in American society where litigation is the prime means of bringing about justice.⁽⁴⁹⁾ The healthcare system, as a social entity residing within the larger society, is being challenged to

adopt philosophies that run counter to the blame-oriented social construct in which it is embedded.⁽¹⁰²⁾ Even if members of an organization succeed at intellectually assimilating a non-punitive systems orientation, the tendency to blame and punish may still override this in the face of difficult situations.⁽¹⁹⁾ This tendency to blame may be exacerbated by the "illusion of free will", which is the notion that humans can choose between right and wrong paths of action and therefore would not err if they chose otherwise. This can lead to a "fundamental attribution error", which is a belief that poor human performance reflects some personal flaw as opposed to being caused by external influences.⁽¹⁰³⁾ We associate making a mistake with being blameworthy, since it has a social connotation of fault. The act of erring becomes tied to the person who did it, and therefore the person is at fault. The first step to shaping a new cultural mindset may be to adopt a new language that supports patient safety efforts and removes culpability.⁽⁴⁹⁾ Berwick suggests that organizations begin by shifting their focus from that of error to the prevention of harm, which will point to the patient as the goal of these efforts and away from finding culpability.⁽⁹²⁾

The “blame and train” tradition

Traditionally, medical errors were thought to be primarily the fault of clinicians' substandard performance. Clinicians were highly trained, held to a high standard, and expected not to err. If error did occur, they were held personally accountable and the remedial approach of choice was to "blame and train" the clinician. The presupposed notion was that error would not happen if the clinician's skills and knowledge levels were optimized. Admitting to error placed one in personal and professional jeopardy.⁽¹⁹⁾⁽¹⁰⁴⁾ The prevailing belief around errors was one of "*How can there be error without negligence?*"⁽⁵¹⁾ Contrary to this notion, current understanding of error causation points to the need to look further upstream in an organization for the origins of error. More often than not, there is a greater potential for organizational policies and procedures to be the cause of latencies and error-prone conditions that manifest on the front-line and set the stage for error. This knowledge must be disseminated more widely within organizations in order to counter the prevailing “blame and train” mentality.⁽²⁷⁾

The shame of erring

Study findings suggest that shame is a strong deterrent to admitting errors. Even though most of the respondents in a study on this subject reported that they would not pass judgement on the erring of co-workers, they would nonetheless be reticent about admitting their own errors. Aside from any understandable fear of punishment, what some people dread more is the feeling of shame that they would experience when admitting errors in the presence of their peers. Those who are more sensitive to feelings of shame are also more likely to suppress this information and not discuss it with their peers. One plausible explanation for withholding error information is the isolation that members of an organization may feel when they presume that they are the only ones making errors. If there is not an environment of openness when an error occurs, there might also not be an awareness that others are making errors as well.⁽⁸²⁾

Chain of command barriers

Openness will be seriously impeded if there is a fear of speaking up when observing an error in progress or when there is an awareness of the potential for error in certain work processes, especially if this requires confronting a superior and challenging his/her authority. The leadership of an organization must recognize that status barriers may exist, even if they are invisible barriers imposed by tacit cultural norms. The onus is on leadership to make it a stated policy of the organization to endorse speaking up for safety by equalizing the hierarchical power structure. This also applies to patients and families, who need to feel comfortable questioning any patient care activities that they may perceive to be inappropriate or irregular. As long as there are power

barriers existing in the culture, any mechanisms designed for ensuring patient safety will be less effective.⁽³⁴⁾

The problem of "many hands"

One of the problems inherent in complex systems is the diffusion of responsibility across the organization. This makes it difficult to determine the relative involvement of each individual and their contribution to organizational action. The actions of individuals become entangled with the actions of the organization. The unfortunate by-product of this phenomenon is that when error-prone conditions exist, there is a failure to speak up and take action, because it is expected that someone else will take care of it. The responsibility for taking the appropriate steps to fix the problem is shifted to some unknown individual or segment of the organization presumed to be responsible. Research suggests that organizations experiencing this problem tend to lack basic incentives to increase the efforts and contributions of individuals.⁽⁴³⁾

Closing the loop

Being open about errors is pointless unless it ties into a mechanism that systematically analyzes risks, regularly evaluates organizational processes, widely disseminates lessons learned in a timely fashion, gets that information to the appropriate parties, and ensures that necessary systems changes are in fact implemented. Otherwise, open dialogue will be hampered, because members of an organization will lose trust and not believe that putting oneself out on a limb by being honest is a safe risk and will truly make a difference by bringing about positive changes. In order to tap into the rich knowledge that can be found within an organization, every effort must be made to enhance the exchange of information and knowledge. The outcome of this effort will be discovery, learning, and innovation, in the name of safety.⁽⁴²⁾⁽⁶⁸⁾⁽¹⁰¹⁾

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