The normalization of deviance in healthcare delivery

John Banja
Center for Ethics, Emory University, 1531 Dickey Drive, Atlanta, GA 30322 U.S.A,
jbanja@emory.edu

Abstract

Many serious medical errors result from violations of recognized standards of practice. Over time, even egregious violations of standards of practice may become "normalized" in healthcare delivery systems. This article describes what leads to this normalization and explains why flagrant practice deviations can persist for years, despite the importance of the standards at issue. This article also provides recommendations to aid healthcare organizations in identifying and managing unsafe practice deviations before they become normalized and pose genuine risks to patient safety, quality care, and employee morale.

Keywords

Medical errors; Patient safety; Preventable harms; Deviations from standards of care; Normalization of deviance

1. Compliance failures and normalizing deviance

Over the last decade, hospital safety personnel have gradually become disabused of a long-standing but incorrect belief: that harm-causing medical errors, such as wrong-side surgeries or retained surgical instruments, result from a single individual doing something inexplicably stupid. Rather, contemporary research on mega disasters—for instance, Chernobyl, space shuttles Challenger and Columbia, Bhopal, and any number of patient care catastrophes—has consistently shown that major accidents require (1) multiple people (2) committing multiple, often seemingly innocuous, mistakes that (3) breach an organization's fail-safe mechanisms, defenses, or safety nets, resulting in (4) serious harm or frank disaster (Cook, 1998; Gerstein, 2008; Green, 2004; Perrow, 1999; Reason, 1999; Woolf, Kuzel, Dovey, & Phillips, 2004). In other words, mistakes such as failing to check or record a lab finding, ordering the wrong drug, or entering a lab finding in the wrong patient's chart are usually not enough to guarantee an occurrence of harm. The recipe for disaster additionally requires these errors, lapses, or mistakes *to go unattended, unappreciated, or unresolved for an extended period of time*. Harm-causing errors therefore result from "active errors" intermingling with "latent errors": laws or weaknesses in a system's defenses that allow the former to breach those defenses, reach patients, and cause harm (Reason, 1999).

Remarkably, the failure of health professionals to comply with standards, rules, or regulations is a fundamental cause of such breaches. Indeed, breaches of a system's defenses and rule

compliance failures are often one and the same. This article will examine such compliance failures, especially in instances where rules or standards of care are established, are easily recognized, and are widely disseminated, but professionals *consistently and even brazenly* disregard them. Worse, intentional deviations in care standards are often practiced or condoned by an entire group; for example, all the nurses or technicians on a given unit. What begin as deviations from standard operating rules become, with enough repetitions, "normalized" practice patterns (Vaughan, 2004; Vaughan, Gleave, & Welser, 2005). At this juncture, personnel no longer regard these acts as untoward, but rather as routine, rational, and entirely acceptable. These latent errors become entrenched in the system's operational architecture and dramatically enhance its vulnerability when a future, active error is committed.

This article explores how egregious violations of standards of practice become normalized in healthcare delivery systems, describes their motivating and enabling factors, and explains why flagrant practice deviations can persist for years. It defines "standards of care" broadly to include any standard, rule, regulation, policy, or procedure whose enactment is professionally or organizationally *required*. Because violating such standards would constitute an unreasonably unsafe act, such violations are organizationally proscribed.

Herein, "deviation" is interpreted as a frank violation of an operational rule, or a variation in practice that so departs from what a rule or standard requires that an unreasonable increase in risk to patients results. It should therefore be pointed out that a violation of a standard or rule as illustrated in the included examples could itself be construed as a technical error (Reason, 1999). However, because of their chronic and seemingly benign but frequently intentional nature, these rule compliance failures stand in stark contrast to one-time, unintentional, dramatic errors, or mistakes such as ordering the wrong medication.

This article concludes with a series of recommendations via which healthcare organizations might identify and manage unsafe practice deviations before they become normalized and threaten to compromise the interests of patient safety, quality care, and employee morale.

2. Deviant practices in healthcare

Consider the following examples of deviant practices in healthcare:

- Example #1: A study recently conducted by the group VitalSmarts and the American Association of Critical Care Nurses (Maxfield, Grenny, Patterson, McMillan, & Switzler, 2005a) revealed that common rule-breaking practices in American hospitals include: not washing or sanitizing hands sufficiently; not gowning up or skipping some other infection-control procedures; not changing gloves when appropriate; failing to check armbands; not performing safety checks; using abbreviations; not getting required approval before acting; and violating policies on storing or dispensing medications. Note the difference between these actions and performing a wrong-side surgery or administering a 10-fold overdose of medication to a patient.

- Example #2: A classic article about a patient who was mistaken for another patient, and began receiving that patient's procedure, noted that the subsequent investigation of this "wrong patient" case uncovered 17 distinct errors: "The most remediable of these were absent or misused protocols for patient identification and informed consent, systematically faulty exchange of information among caregivers, and poorly functioning teams." (Chassin & Becher, 2002, p. 826)

- Example #3: A case related to the author by a physician nicely illustrates how deviations become normalized:

When I was a third-year medical student, I was observing what turned into a very difficult surgery. About 2 hours into it and after experiencing a series of frustrations, the surgeon inadvertently touched the tip of the instrument he was using to his plastic face mask. Instead of his requesting or being offered a sterile replacement, he just froze for a few seconds while everyone else in the operating room stared at him. The surgeon then continued operating. Five minutes later he did it again and still no one did anything. I was very puzzled, but when I asked one of the nurses about it after the operation, she said, "Oh, no big deal. We'll just load the patient with antibiotics and he'll do fine." And, in fact, that is what happened; the patient recovered nicely.

- Example #4: A catastrophic negligence case that the author participated in as an expert witness involved an anesthesiologist's turning off a ventilator at the request of a surgeon who wanted to take an x-ray of the patient's abdomen (Banja, 2005, pp. 87-101). The ventilator was to be off for only a few seconds, but the anesthesiologist forgot to turn it back on, or thought he turned it back on but had not. The patient was without oxygen for a long enough time to cause her to experience global anoxia, which plunged her into a vegetative state. She never recovered, was disconnected from artificial ventilation 9 days later, and then died 2 days after that. It was later discovered that the anesthesia alarms and monitoring equipment in the operating room had been deliberately programmed to a "suspend indefinite" mode such that the anesthesiologist was not alerted to the ventilator problem. Tragically, the very instrumentality that was in place to prevent such a horror was disabled, possibly because the operating room staff found the constant beeping irritating and annoying.

Health professionals are hardly the only professional group to engage in, or fail to attend to, variations or deviations from standards or protocols. Mega disasters such as Chernobyl, Three Mile Island, Bhopal, and the ill-fated Challenger and Columbia space missions all witnessed system flaws and protocol violations that antedated the disasters by years (Gerstein, 2008; Perrow, 1999; Predmore, 2006; Reason, 1999). For example, NASA knew—for at least 5 years prior—about the rocket booster O-ring failures that led to the Challenger disaster. Debris shedding from the external fuel tank, which damaged the wing of the space shuttle Columbia and caused the vessel to break apart on its atmospheric re-entry, had been a recognized design flaw for 20 years; indeed, debris shedding had occurred on every space shuttle flight (Predmore, 2006). The catastrophe at Bhopal, India—where more than 2,500 people were killed and more than 200,000 were injured—was preceded by six prior accidents that witnessed no safety improvements, a continued and heavy reliance on inexperienced operators, ignored inspectors' warnings, and malfunctioning equipment (Reason, 1999).

What these disasters typically reveal is that the factors accounting for them usually had "long incubation periods, typified by rule violations, discrepant events that accumulated unnoticed, and cultural beliefs about hazards that together prevented interventions that might have staved off harmful outcomes" (Vaughan, 1999, p. 698). Furthermore, it is especially striking how multiple rule violations and lapses can coalesce so as to enable a disaster's occurrence, such as cited in Example #4. As one commentator put it: "There is no isolated 'cause' of an accident. There are multiple contributors to accidents. Each of these is…insufficient in itself to create an accident. Indeed, it is the linking of these causes together that creates the circumstances required for the accident" (Cook, 1998, p. 2). Next, we examine some reasons why practice deviations occur and how such deviations become normalized.

3. Factors that account for the normalization of deviance

In discussing the normalization of deviance, two things should be kept in mind. The first is that while the normalization of deviant practices in healthcare does not appear substantially different from the way corrupt practices in private business evolve and become normalized (Ashforth & Anand, 2003), the health professional's "deviance" is virtually never performed with criminal or malicious intent. Second, health professionals typically justify practice deviations as necessary, or at least not opposed to accomplishing their ethically unimpeachable objective of relieving their patients' pain and suffering (Vaughan, 2004). Nevertheless, just as the phenomena of socialization, institutionalization, and rationalization enable corrupt practices to evolve in white collar organizations (Ashforth & Anand, 2003), those phenomena are similarly at work in the evolution of deviant behavior among health professionals.

Institutionalization exposes newcomers to deviant behaviors, often performed by authority figures, and explains those behaviors as organizationally normative (as cited in Example #3). Socialization, which is often mediated by a system of rewards and punishments, aims at determining whether the newcomer will or will not join the group by adopting the group's deviant behaviors. Rationalization enables system operators to convince themselves that their deviances are not only legitimate, but acceptable and perhaps even necessary. Institutionalization, socialization, and rationalization work in a mutually reinforcing manner to dissolve anxiety among the uninitiated by representing deviant behaviors as thoroughly rational and not immoral responses to work performance challenges (Ashforth & Anand, 2003). Let's now examine some specific mechanisms—primarily instances of institutionalization and rationalization—whereby deviance becomes normalized.

3.1. The rules are stupid and inefficient!

This justification for violating standards might arguably be the most common. Rule, or standards, deviators often interpret rule compliance as irrational and a drag on productivity (Gerstein, 2008; Vaughan, 1999, 2004). The deviator typically understands the problematic rule to have been handed down by authorities who appear wildly out of touch with "life in the trenches," and thus have no appreciation of the system pressures imposed on front-line care providers. Indeed, system operators might argue that perfect compliance with all the rules or standards would make it impossible to achieve productivity targets. Unsurprisingly, system operators will often invent shortcuts or workarounds when the rule, regulation, or standard seems irrational or inefficient, such as in the following scenario related to the author by a veteran neonatal nurse:

- Example #5: In order to discourage drug diversion in a neonatal care unit, and in the days before computerized fingerprint recognition, our nurses were required to do the following when retrieving medications from the Pyxis medication cart: The nurse fetching the medication would enter their password on the computer, remove the medicine from the Pyxis drawer, draw the correct amount, and administer it to the patient. If any medicine remained in the vial—which happened frequently, because newborns often require smaller doses—the nurse was supposed to call a second nurse to the Pyxis, who would enter their password. The second entry was supposed to indicate that the second nurse observed the first nurse discarding the left-over medicine. However, because the nurses resented having to bother one another, especially when they were extremely busy with patient care measures, they simply shared their passwords with one another and entered them when they returned to the Pyxis. Not only was this an easy shortcut, but it compensated for the nurses' taking offense that administration would think them to be drug diverters. Of course, it categorically defeated the purpose of the regulation.

3.2. Knowledge is imperfect and uneven

System operators might not know that a particular rule or standard exists; or, they might have been taught a system deviation without realizing that it was so; or, they might know that a rule exists but fail to appreciate its purpose or recognize the conditions under which to implement it (Vaughan, 1999). Confusion over standards or rules can be especially acute among professionals who feel uncomfortable in asking for help, or in admitting ignorance in understanding or applying a standard. The problem is compounded for newly graduated professionals, who can be easy prey for learning deviant behaviors that have become normalized in their work environments. As a nurse recalled in looking back on her experience just after graduation from nursing school:

> It is just the global newness…it is kind of overwhelming. You are new to the setting, new to working, new to all the technical skills and new to the personalities. It is very difficult to hold yourself together and function in those early months. It is just kind of an overwhelming plunge, I think. Not everyone survives it. (Kelly, 1998, pp. 1137-1138)

But whether one is a freshly minted graduate or a seasoned professional, the introduction of new technologies and work responsibilities can easily disrupt practicing according to the recognized standard.

3.3. The work itself, along with new technology, can disrupt work behaviors and rule compliance

Complex work environments are often dynamic, unstable and, therefore, unpredictable. New technologies and personnel can disrupt ingrained practice patterns, impose new learning demands, or force system operators to devise novel responses or accommodations to new work challenges. Thus, it is still not uncommon to see computer passwords taped onto monitors in hospital units. As Richard Cook (1998, p. 3) has noted, "When new technologies are used to eliminate well-understood system failures or to gain high precision performance, they often introduce new pathways to large scale, catastrophic failures. Not uncommonly, these new, rare catastrophes have even greater impact than those eliminated by the new technology." By their very nature, novel technologies and clinical interventions disrupt existing knowledge and behavioral patterns, and can greatly increase the probability of frank disaster.

3.4. I'm breaking the rule for the good of my patient!

This justification for rule deviation recalls the situation described in Example #5, where the rule or standard is perceived as counterproductive. The phlebotomist in the following example might similarly plead that rule-following diminished the quality of her patient care:

- Example #6: A phlebotomist in a neonatal unit would slip on her gloves to do a blood draw, but then immediately tear off the index fingertip of one of them (thus violating an infection control rule). She would use that exposed fingertip to detect the baby's vein, which she would then stick. She claimed she had a very hard time feeling the baby's vein through the latex glove, and she didn't want to miss the vein and subject the baby to multiple sticks. It took three rather direct confrontations with her supervisor before the rule violation stopped. (Maxfield et al., 2005a)

3.5. The rules don't apply to me/You can trust me

While pathological narcissists who believe they are above rule-following can be found in any organization (Banja, 2005; Weber, 2004), a more subtle form of "the rules don't apply to me" is when system operators believe they are not tempted to engage in the behavior that the rule or standard is supposed to deter. Thus, the rule is understood as superfluous. As in Example #5, the rule violator feels perfectly justified in performing the problematic behavior, because

the deviant practice of drug diversion would never cross his or her mind. Administrators should appreciate a psychological finding that has been replicated in various forms throughout the 20th century: most human beings perceive themselves as good and decent people, such that they can understand many of their rule violations as entirely rational and ethically acceptable responses to problematic situations. They understand themselves to be doing nothing wrong, and will be outraged and often fiercely defend themselves when confronted with evidence to the contrary (Ashforth & Anand, 2003).

3.6. Workers are afraid to speak up

The likelihood that rule violations will become normalized obviously increases if persons who witness them refuse to intervene. Yet, a 2005 study of more than 1,700 healthcare professionals found that "it was between difficult and impossible to confront people" (Maxfield, Grenny, Patterson, McMillan, & Switzler, 2005b, p. 10) who manifested problematic work behaviors, especially rule-breaking, incompetence, and showing disrespect. Fear of retaliation, lack of ability to confront, belief that it is "not my job," and low confidence that speaking up will do any good were the chief reasons given for not calling attention to deviant behaviors. As the study reported, "People don't want to make others angry or undercut their working relationship, so they leave difficult discussions to others or to another time, and never get back to the person" (Maxfield et al., 2005b, p. 10). Obviously, human beings underlie every rule violation or system failure (Reason, 1999, p. 201). If personnel feel intimidated or frightened to call an operator's or supervisor's attention to the deviance, it is more likely to persist and—even more problematically—to interact with other system failures, inviting disaster. Consider the following example:

- Example #7: Dr. Smith's penmanship is frequently illegible, but he becomes very testy and sometimes downright insulting when a nurse asks him to clarify what he's written down. So, rather than ask him, the annoyed nurse will proceed to the nurse's station, consult with another nurse or two, and collectively try to decipher Dr. Smith's scrawl.

This example illustrates the linking of multiple system faults—poor handwriting that goes unremediated, resulting in non-physicians ordering medications they guess to be correct—that someday could result in disaster.

3.7. Leadership withholding or diluting findings on system problems

Findings of system flaws and weaknesses are frequently revised and diluted as that information ascends the chain of command (Gerstein, 2008; Vaughan, 1999). There are a number of reasons for this. One is that a supervisor might be abundantly aware of standard or rule violations, but be fearful that if her superiors knew about them, she and her unit would look bad to administration. Marc Gerstein (2008, p. 245) termed this "politics triumphing over safety" as the objective, through concealment, is to save face among one's superiors. Furthermore, remediative efforts to correct standards violations might be perceived as too time-consuming and as threatening to cause short-term productivity losses; consider when a hospital's misbehaving, but only, neurosurgeon is left to his problematic behaviors because administrators fear will leave if confronted with his unprofessionalism (Gerstein, 2008; Joint Commission, 2008). Admittedly, the neurosurgeon's departure could represent a financial blow to the hospital, not only from the standpoint of lost revenues from neurosurgical procedures, but also from the lost opportunity for neurosurgical consultations, referrals, or admissions to or from other units (e.g., neurology, oncology, rehabilitation medicine). It is easy to understand how a hospital's administration might shrink from initiating remedial, not to mention disciplinary, measures against him.

What is as unsettling as it is interesting in these situations is how an administrator might convince herself that correcting an employee's practice deviations can be more trouble than whatever future disasters may result from those deviations. The latter are discounted as improbable while the former, such as the possibility of the neurosurgeon's resigning in a huff and going to a competitor hospital, are perceived as disastrous. This has led Gerstein (2008, p. 279) to remark that:

> While safety and risk management is perfectly compatible with efficient operations over the long term, it often runs contrary to it in the short term, especially where there have been long periods of neglect. For organizations under performance pressure, getting reliable and unfiltered information through the chain of command can be all but impossible.

4. Recommendations: A fundamental commitment to patient safety

A fundamental sensibility in remediating the normalization of deviance begins with leadership's requiring system operators to consistently renew their commitment to patient safety (Vaughan et al., 2005). Unfortunately, that commitment is as easily declared in the organization's public rhetoric as it can be ignored in practice. As famed psychologist Albert Bandura (1999, p. 10) put it, "Most everyone is virtuous at the abstract level," but declarations or announcements of professionalism and patient-centered care are frequently forgotten when the idea of speaking up about system weaknesses or flawed practice behaviors arouses feelings of fear and anxiety (Maxfield et al., 2005b).

Over months and years, health professionals working together can come to regard one another as members of a family in contrast to the patients they treat, who are typically admitted and discharged over a few days and whose care needs can exhaust and often frustrate the staff. By virtue of their sustained relational proximity and interdependencies, professional staff can feel extremely supportive of—or at least sympathetic toward—one another. Consequently, we should not be surprised when staff protect one another or refuse to jeopardize one another's welfare.

But, these very observations underscore the importance of periodically reminding oneself of a commitment to patient safety; professionals must find the wherewithal to valorize duty over group self-interest, and patient safety over the personal comfort of group members (Vaughan, 1999). A powerful way of enabling that commitment is for leadership to model it and to foster an organizational environment that eradicates, as much as possible, factors that sustain rule and standards violations. The following subsections will explore how this might be accomplished.

4.1. Pay attention to weak signals

System operators must become acutely vigilant about deviant behaviors and practices, and be ready to take aggressive steps to halt their occurrence before they achieve normalization (Gerstein, 2008). Although the aforementioned examples of deviance certainly suggest organizational problems, note that the commission of any one of these acts only heightens the possibility of injury; it does not ensure it. "Heightened possibility of injury" is an abstraction, the normative force of which might pale in comparison to the challenge of actually confronting a practice deviation and correcting it. One can easily convince himself or herself that there is no need to intervene because a particular deviant practice has yet to result in patient harm, and the thought of intervening is unpleasant in light of the anticipated discomfort associated with confronting deviators and those who tolerate deviance (Maxfield et al., 2005b). On the other hand, the best time to intervene in correcting a deviant practice is early rather than later on, when righting the now-normalized deviation can be much more challenging (Neff, 2003).

It therefore behooves healthcare organizations to educate employees that (1) practice deviations are common occurrences in most work environments and that (2) deviators rarely intend harm but rather are probably trying to achieve efficiency and secure better outcomes, although (3) these deviations must be identified, examined, and halted whenever they jeopardize patient care (Vaughan et al., 2005). Sensitizing employees to the idea that unsafe practice deviations are not to be tolerated can occur through discussions during rounds, incident surveys and reports, and the use of focus groups. Educational activities built around root-cause analyses and case studies can be useful in destigmatizing practice deviations with respect to assigning blame to individuals, while simultaneously helping employees to appreciate their menacing dimensions (Neff, 2003; Predmore, 2006; Vaughan, 1999). The goal of such efforts should be to create a culture of understanding that some practice deviations are likely to occur, but that they require swift attention.

4.2. Resist the urge to be unreasonably optimistic

Unfortunately, human beings can easily develop an irrational optimism about avoiding adverse events. Gerstein (2008) has discussed how people approach practice deviations by comparing their estimation of the labor required to remediate the deviance with the probability of an adversity caused by the deviance actually occurring. If the latter is perceived to be very low but the former uncomfortably high, supervisory personnel might take the easier course and convince themselves that remediating rule violations or standards deviations can be foregone. Furthermore, even though few system deviations, flaws, or weaknesses actually result in serious injury or catastrophe, that very infrequency can lull system operators into irrational complacency. For example, in the 20 years prior to the Columbia space shuttle tragedy, the debris shedding that ultimately doomed the shuttle had occurred without incident on each and every previous shuttle flight (Predmore, 2006). As that occurrence became increasingly familiar to design engineers, its risk severity was steadily downgraded according to the illogical idea that "if no accident has happened by now, it never will."

Instead of calculating the emotional and physical toil of correcting deviances versus the probability of an accident's occurring, Gerstein (2008) suggests that one instead consider the *gravity and repercussions of an adverse event's actual occurrence*. For instance, even though most people have never had their home go up in flames, most wouldn't think of forgoing a home owner's insurance policy. That many health professionals resist making and acting on this benefits/burdens calculation as it involves preventable harm to patients seems remarkable, which only makes the case stronger for the formidability of psychological barriers to speaking up.

4.3. Teach employees how to conduct emotionally uncomfortable conversations

As noted, confronting a system operator whose practice behaviors unjustifiably deviate from accepted standards can be extremely uncomfortable. The conversation might be marked by anger and threats from the employee, which are then met with equally unproductive responses from the supervisor. A number of commentators including Neff (2003), Sotile and Sotile (1996a, 1996b), Bernstein (2001), and Buckman (1992) have authored valuable materials that can assist supervisors with this difficult task. Some empathic responses that can help prevent or defuse volatile moments during such conversations are listed in Table 1.

Some commentators, including Neff (2003), recommend that if the violation is not terribly serious, the first intervener should be a peer without much administrative power. With physicians, peer intervention seems especially advisable. For more serious or repeat violators, a team intervention—this could include an administrator, the hospital attorney, a counselor, and others—might be needed. In such instances, interveners must rehearse their roles, responsibilities, and communications; it is thoroughly naïve to believe that these activities can

be breezily improvised at a meeting with a rude, hostile, and extremely defensive rule violator. Interveners should develop and follow a script that not only outlines their dialogue—that is, what words and phrases they will actually use—but specifies the outcome they want, along with a fairly detailed plan to secure it. It is very important that after the meeting, the offending employee receive an official, written summary of the meeting which outlines the next steps in the remediation. The employee should be required to acknowledge that the summary is accurate. Interveners might have to repeat this last step, because the rule offender can find it distressing to acknowledge the meeting's having taken place (Neff, 2003).

Interestingly, administrators or supervisors tasked with these challenging conversations might be buoyed by a positive finding from the literature: simply informing a problem employee about the unacceptability of his or her behavior has a high success/remission rate (Neff, 2003). Problem employees sometimes express ignorance of their behavior or its impact. Nevertheless, perhaps the most important thing for interveners to understand is that their intervention should be prompt. The longer a rule violator is left to his wayward practices, the more he will perceive them as organizationally acceptable (Ashforth & Anand, 2003).

4.4. System operators need to feel safe in speaking up

Assuming that leadership is committed to patient safety and the value of speaking up, this literature recommends that organizations have policies disseminated among staff that specify instances where speaking up is expected (Maxfield et al., 2005b). These policies must promise protection to staff who do speak up. Training sessions should be developed and conducted throughout the organization, largely by administrators and supervisors rather than private consultants, on identifying and remediating system weaknesses and rule violations (Maxfield et al., 2005b; Neff, 2003; Vaughan et al., 2005).

Nevertheless, institutions might need to work very hard at convincing staff that they can feel safe in speaking up or calling attention to standards or rule deviations. As previously noted, fear of retaliation or the expectation of an organizational non-response often inhibits staff members from speaking up. Consequently, organizations might carefully consider the value of a "blameless and nonpunitive" response to errors and latent system failures (Banja, 2005, pp. 132-150; Green, 2004; Reason, 1997, pp. 205-213).

Articulating a policy of blameless and nonpunitive responses to error is not without its own difficulties, however. For example, should all errors or practice deviations go unblamed and unpunished, even the brazenly reckless ones? Conversely, organizations that reflexively punish rule violators or personnel who call attention to such violations are often effectively silencing information crucial to patient safety (Green, 2004). Assuming persons who call attention to standards and rule violations are motivated by patient-centered concerns, rather than selfish behaviors aimed at trying to harm fellow employees, protection must be afforded to them (Dwyer, 1994; Maxfield et al., 2005b). On the other hand, organizations must also treat purported rule violators fairly, as the latter might be able to justify their practice deviations or plead mitigating circumstances. For example, in determining blame for a rule violation, organizations should ask questions such as the following:

- If a rule or standard violation occurred, was the violator properly taught or informed about the rule, but chose to violate it anyway? Or, might the organization have failed to instruct employees adequately on the organization's rules, policies, and procedures?

- Is the standard or rule routinely ignored by most organization members? If so, is the standard or rule really necessary?

- Might a reasonable person in similar circumstances have judged a violation to be justified?

- Were there mitigating circumstances, such as sleep deprivation or malfunctioning technology, that invited the practice deviation? (Banja, 2005; Reason, 1997)

These questions underscore the importance of ensuring that allegations of rule or standards violations are not only evidentially supported, but investigated from the standpoint of *the job performance pressures the system operator was experiencing when he or she engaged in the problematic behavior* (Cook, 1998; Green, 2004). These considerations are critical because system weaknesses—such as inadequate training or staffing, poor equipment design, or managing conflicting priorities—invite practice deviations. Still, behind every system flaw or practice deviation stands one or more human beings responsible and accountable for it; this fact recalls the necessity of a prompt and effective response to the rule violations and violators.

4.5. Realize that oversight and monitoring for rule compliance are never-ending

Richard Cook (1998) has pointed out that complex systems such as healthcare are intrinsically hazardous in that they invariably contain changing mixtures of failures, weaknesses, and expertise, and always run in a "degraded" mode. A health system's defenses are never running perfectly, and technological change inevitably introduces new forms of failure (Woolf et al., 2004). Complicating this is the notion of an "acceptable" risk that seems to permeate organizational thinking. Disconcertingly, the notion of an acceptable risk implies one is confident enough that the system's defenses will detect, intercept, and defuse an error occurrence before its potential threat materializes, or that one has actually had prior experience with the risk materializing and deems that harm acceptable. Either rationale is worrisome for the following reasons. The first rests on an admittedly fallible conjecture in that system defenses always work when, as we observed in the previous anesthesia example, these defenses can be short-circuited. The second rationale implies an historical experience with harm-causing deviance whose next iteration might be much worse than its predecessor (Gerstein, 2008; Predmore, 2006; Reason, 1999).

5. Final thoughts

This article has demonstrated that the commission of errors is only one piece of the mosaic of unwarranted or preventable harms. Just as important, if not more so, are system weaknesses or failures, which frequently appear as persistent and chronic deviations from practice standards or rule violations. As they occur in healthcare, these deviations or rule violations are rarely motivated by malice or greed, but often result from personnel feeling intense performance pressures. In the midst of job stress, staff can perceive rules, practice standards, and regulations as inefficient, nonsensical, counterintuitive, and even contrary to patient welfare.

Even when personnel are abundantly aware of and anxious about their colleagues committing serious rule violations, they may feel inhibited about speaking up. Arguably, the psychological barriers to calling attention to deviations and deviators are the primary reason why they endure in healthcare operations (Maxfield et al., 2005b). Adopting a hypervigilant attitude and rapid response to practice deviations can easily give way to the comforting rationalization that "if a disaster hasn't occurred by now, it never will," along with feelings of intense discomfort triggered by the thought of taking remedial action on practice deviations. As such, organizations which impress staff that speaking up will be valued rather than penalized are moving in a patient-centered direction.

The theme of this article—namely, that deviant practices in the form of violations of rules and practice standards are arch contributors to healthcare disasters—is remarkably generalizable.

On March 18, 1990, the most sensational art heist in U.S. history occurred. As reported by Stephen Kurkjian (2005) of the *Boston Globe*, a security guard at the Isabella Stewart Gardner Museum in Boston let two thieves posing as police officers into the building at 1:24 AM. In short order, the thieves overtook and restrained the two guards on duty, and then made off with13 paintings and other works of art, including three Rembrandts and a Vermeer. The value of the haul was estimated at between $300 and $500 million. As of this writing, none of the art has been recovered.

Post-hoc analyses showed that the guard sitting at the security control desk was a then-23-year-old Berklee College of Music student. In an interview, he called the job "the most boring in the world" and admitted that he frequently arrived at work stoned on marijuana, although not on the morning in question. What he had to admit, however, was that he violated two critical rules: (1) Never allow anyone into the Gardner after hours who hadn't been summoned by museum staff, and (2) never leave the security desk unattended. The reason for the latter rule was that the only alarm switch the Gardner had to alert police was on the security desk. Consequently, when one of the thieves lured the guard away from the desk and then handcuffed him, the museum was without its only direct contact to the police. Leadership at the Gardner was well aware of this appalling security weakness because a formal recommendation to move the entire security system into a control room accessible only to those with pass keys was submitted to the museum director the year before (Kurkjian, 2005).

Whether they are disasters occurring in hospitals or art museums, the contribution of protocol or rule violations that allow errors or other kinds of "toxins," like thieves, to exploit the system is confirmed time and again. System operators become careless and lackadaisical from nonevents; The last incident at the Gardner was a botched theft that occurred 20 years before. System operators are often not trained or are inexperienced; The guards claimed they had never been told what to do if police showed up unannounced, although the rule about refusing entry into the museum was clearly stated in the security manual. And, as Richard Cook (1998) observed, systems always operate in a degraded mode; An older, more experienced guard who might have refused the thieves entry had called in sick that shift, leaving two young and inexperienced guards with their one alarm switch to the police to protect the museum's priceless artworks.

Whether the prize is a Rembrandt or a patient's safety, the stakes are tremendously high. Professionals who perform rule-bound tasks, especially associated with complex and risky interventions whose failures can invite serious harm and injury, must appreciate the perils of deviating from standards of care. The more such deviations are allowed, the more normalized they become. Reminding themselves of the seriousness of the stakes might help health professionals to steel their courage, remain vigilant, and respond aggressively to unsafe practice deviations whenever they occur.

Acknowledgments

References

Ashforth DE, Anand V. The normalization of corruption in organizations. Research in Organizational Behavior 2003;25:1–52.

Bandura A. Moral disengagement in the perpetration of inhumanities. Personality and Social Psychology Review 1999;3(3):193–209. [PubMed: 15661671]

Banja, J. Medical errors and medical narcissism. Sudbury, MA: Jones and Bartlett Publishers; 2005.

Bernstein, A. Emotional vampires: Dealing with people who drain you dry. New York: McGraw-Hill; 2001.

Buckman, R. How to break bad news. Baltimore: The Johns Hopkins University Press; 1992.

Chassin MR, Becher EC. The wrong patient. Annals of Internal Medicine 2002;136(11):826–833. [PubMed: 12044131]

Cook, RI. How complex systems fail: Being a short treatise on the nature of failure; how failure is evaluated; how failure is attributed to proximate cause; and the resulting new understanding of patient safety. 1998. Retrieved May 26, 2009, from http://www.ctlab.org/documents/How%20Complex%20Systems%20Fail.pdf

Dwyer J. Primum non tacere: An ethics of speaking up. Hastings Center Report 1994;24(1):13–18. [PubMed: 8045760]

Gerstein, M. Flirting with disaster: Why accidents are rarely accidental. New York: Union Square Press; 2008.

Green M. Nursing error and human nature. Journal of Nursing Law 2004;9(4):37–44.

Joint Commission. Behaviors that undermine a culture of safety. Sentinel Event Alert 2008;40(9):1–5. [PubMed: 18686330]

Kelly B. Preserving moral integrity: A follow-up study with new graduate nurses. Journal of Advanced Nursing 1998;28(5):1134–1145. [PubMed: 9840887]

Kurkjian, S. Stolen beauty: The Gardner Museum heist—15 years later: Secrets behind the largest art theft in history. Boston Globe. 2005 Mar 13. Retrieved May 26, 2009 from http://www.boston.com/news/specials/gardner_heist/heist/

Maxfield, D.; Grenny, J.; Patterson, K.; McMillan, R.; Switzler, A. Dialogue heals: The seven crucial conversations for the healthcare professional. VitalSmarts. 2005a. Retrieved May 26, 2009, from http://www.isssp.com/?page=product_profile&show=4717

Maxfield, D.; Grenny, J.; Patterson, K.; McMillan, R.; Switzler, A. Silence kills: The seven crucial conversations for healthcare. VitalSmarts. 2005b. Retrieved May 26, 2009, from http://www.aacn.org/WD/Practice/Docs/PublicPolicy/SilenceKills.pdf

Neff, K. Ransom, SB.; Pinsky, WW.; Tropman, JE., editors. Managing physicians with disruptive behavior; Enhancing physician performance. 2003. p. 49-77.Retrieved May 26, 2009, from http://www.wsha.org/meetings/presentations/2003/SoulesHandoutCH4.pdf

Perrow, C. Normal accidents: Living with high-risk technologies. Princeton, NJ: Princeton University Press; 1999.

Predmore, S. Keynote Address: The normalization of deviance. 2006. Retrieved May 26, 2009, from http://www.birdstrike.org/meetings/2006_papers/Predmore_Keynote.pdf

Reason, J. Managing the risks of organizational accidents. Aldershot, UK: Ashgate; 1997.

Reason, J. Human error. Cambridge, UK: Cambridge University Press; 1999.

Sotile WM, Sotile MO. Managing yourself while managing others. Physician Executive 1996a;22(9): 39–42. [PubMed: 10161953]

Sotile WM, Sotile MO. The temper-tantruming physician. Physician Executive 1996b;22(8):30–35. [PubMed: 10160038]

Vaughan D. The dark side of organizations: Mistakes, misconduct, and disaster. Annual Review of Sociology 1999;25:271–305.

Vaughan, D. Organizational rituals of risk and error. In: Hunter, B.; Power, M., editors. Organizational encounters with risk. Cambridge, UK: Cambridge University Press; 2004. p. 33-66.

Vaughan, DS.; Gleave, EP.; Welser, HT. Controlling the evolution of corruption: Emulation, sanction, and prestige. Paper presented at the annual meeting of the American Sociological Association; Philadelphia, PA. 2005 Aug.

Weber DO. Poll results: Doctors' disruptive behavior disturbs physician leaders. Physician Executive 2004;30(5):9–17.

Woolf SH, Kuzel AJ, Dovey SM, Phillips RL. A string of mistakes: The importance of cascade analysis in describing, counting, and preventing medical errors. Annals of Family Medicine 2004;2(4):317–326. [PubMed: 15335130]

Table 1

Examples of empathetic responses to the problem employee[*]

- "I'm sure you don't realize this, but…"

- "You are very important to this organization."

- "I could be wrong here."

- "May I explain what I'm seeing and get your point of view?"

- "Right now, the way you do X would be considered risky or a departure from the standard of care." (focus on safety, not competence)

- "I value our friendship/relationship, and I want us to be honest with one another."

- "My understanding is X. Is that yours?"

- "What do you think can be done about this?"

- "When I bring up a concern, I see you tense up. Sometimes you cut me off or jump in with a disagreement. I think you stop listening and begin defending. You may not realize how you're coming across, but that's how it appears to me and others. Do you realize you're doing that?"

---

[*] Adapted from Maxfield, Grenny, Patterson, McMillan, & Switzler (2005a); Neff (2003); Sotile and Sotile (1996a, 1996b).